

**ASSESSMENT OF THE IMPLEMENTATION
OF KERALA CURRICULUM 2013 AT
PRIMARY LEVEL: STANDARD II**



State Council of Educational Research and Training (SCERT),

Poojappura, Thiruvananthapuram, Kerala

March 2017

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Conducted by

Department of Research, Documentation & Dissemination

State Council of Educational Research and Training (SCERT), Kerala

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Preface

The study entitled “An Assessment of the Implementation of Kerala Curriculum 2013 at Primary Level: Standard II” is aimed to determine how the new Kerala Primary school curriculum(standard II) is implemented in classes and to identify the factors influencing its implementation. The necessary data were collected using the tools and techniques prepared by a team of experts and teachers under the leadership of SCERT faculty.

Great effort was taken to collect, compile, classify and analyse data in order to arrive at proper findings and conclusions. The study helps us to visualize how curriculum developers’ decisions are interpreted and practiced by teachers in classrooms. The rich information collected through the survey questionnaire also helps us to identify the forces applying to the process of implementation. In turn what does or does not get implemented in the curriculum can be determined and the reasons for the differences between intended and implemented curricula can be recognized. It helps us to comprehend the process of, and the problems experienced during curriculum implementation in our state. This study also helps to identify the practical problems faced by teachers. The findings of this study can help teachers to improve their performance and instructional practices.

Hope that this study will provide valuable information in turn can help teachers, curriculum planners, authorities and decision makers to develop better-designed materials and make further progress in the curriculum design during every curriculum restructuring and reification.

I owe my sincere gratitude to all involved in the study without which this research study would not have been a grand success.

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**AN ASSESSMENT OF THE IMPLEMENTATION OF KERALA
CURRICULUM 2013 AT PRIMARY LEVEL: STANDARD II**

EXECUTIVE SUMMARY

**SCERT, Kerala
Thiruvananthapuram.
2017**

Introduction

The prime objective of education is the socialization of human beings and the school is the pivotal agency to organize and transmit all the cultural and social values to individuals. Curriculum is the most effective tool to disseminate all these values to the society and individuals. To assess a curriculum a breathless effort is needed. Assessment of the process of curriculum development plays a vital role in channelizing and keeping the direction of young generation on the desired way for the achievement of national objectives and keeping the system update with respect to the changing scenario of time. Curriculum development process also undergoes transformation due to newer developments in education and its evaluation keeps it valid, reliable and keeps it in the right direction. Recommendations through evaluation for any process have a message of eternity for it. Therefore the curriculum development process is organized in such a way to prepare young men and women for pursuing higher education and also to make them able to adjust with their practical life meaningfully and productively. The goals of education can be attained only through valid reliable curriculum and proper evaluation process for updating and fulfilling required social needs.

Current reconceptualization of curricular frameworks place the curriculum content in more ecologically valid contexts, making it more inquiry based, and urging the adoption of outcomes assessment measures which tap students' abilities to engage in activities rather than test their abilities to regurgitate rote learnt facts. Such reconceptualization also place greater emphasis on the need to develop students' critical thinking and problem solving skills so that they will be prepared for the challenges and opportunities of the new millennium. With the aim of maximizing the efforts to bring about the proposed curricular reforms and to increase the success of the curriculum implementation process, there arise the need to make careful descriptions of what transpires in classrooms on a daily basis and why this happens. This will allow educationalists to find ways to support teachers, as they are required to adopt retooled and reformed curricula. If this is not done, teachers will continue with their routines: their previous experiences, what has worked in the past. As a result, change does not occur and the implementation of a new curriculum does not conform to the curriculum intended by the curriculum designers.

The Kerala Curriculum Framework, adopted in 2007 (KCF 2007), was recognized by far and wide, as it was an exemplarily, modified and progressive document that the state had to offer. KCF 2007 is apt for the present Kerala social and educational scenario, after the National Curriculum framework (NCF 2005) guidelines laid down by the NCERT. The Curriculum developed on the basis of KCF 2007 –from the primary to the higher secondary level - which thrusts the philosophical and psychological premises of Social Constructivism, Critical Pedagogy, Multiple and Emotional intelligences, Inclusion in Education, etc., and also it is stressed on the ‘Mental process of the learners.

Primary school curriculum was always considered as the cornerstone of any educational progress because it had direct influence on the ‘making’ process of the learner. The Right of Children to Free and Compulsory Education Act (RTE Act, 2009/2010) underlines the important aspects of the primary school curriculum. The Primary School curriculum in Kerala after curricular revision of KCF 2007, already had conformed to these aspects.

Curriculum evaluation is an essential phase in the development of a progressive curriculum. Curriculum development is an evolving process which makes curriculum suitable to the individual and social needs as well as the goals of the nation. Curriculum at school education revises in Kerala after every five years. The curriculum and textbook prepared as per the Kerala Curriculum Framework (KCF, 2007) has been reviewed by an expert committee appointed by the Government of Kerala and an approach paper is also developed to change the curriculum and textbooks of School education in Kerala. As a result the text book of class I, III, V, VII and XI were revised in the academic year 2014-15. The text books of class II, IV, VI, VIII and XII revised in 2015-16 and textbook of class IX and X revised in 2016-17 academic years. A status survey at higher secondary level and a baseline study at primary and secondary levels have been conducted during this period.

The present study is conducted after the implementation of current cycle of curriculum development. The investigation covers Standard II on the subjects such as Integration, English and Mathematics. The study focused on five major dimensions of curriculum, i.e., learning outcome, learning resources and materials, learning Process, evaluation system and teacher Support Mechanisms. Data were collected from the different stakeholders of educational system including students, teachers, and parents, Heads of institutions, AEOs and members of the local bodies. Concurrent review and assessment of the Curriculum being followed would help to assess the merits and demerits of the existing curriculum as well as to offer suggestions to implement it in a better manner or to fill the gap, if any.

Review of the curriculum is to evaluate its effectiveness after it has been implemented and reflect on what students, teachers and the society did and did not get out of it. Hence, the study, *An Assessment of Implementation of Kerala Curriculum 2013 at Primary Level: Standard II*. The study has carried out by considering the following objectives:

Objectives

1. To assess the Revised Kerala curriculum (Class- II) with respect to

- i. Learning Outcomes
- ii. Learning Resources
- iii. Learning Process
- iv. Support System
- v. Evaluation

2. To find out the practical difficulties encountered by teachers in implementing the revised curriculum.

3. To suggest measures for making further revision effective.

Methodology

Method

Survey method and Document analysis are the major methods used for collecting data for the present study.

Sample of the study

The present study was conducted in Class II of six Revenue districts (Thiruvananthapuram, Idukki, Palakkadu, Ernakulam, Malappuram, and Kannur). From each Revenue district two sub districts were selected for the collection of data. The sub districts selected were: Thiruvananthapuram South and Attingal from Thiruvananthapuram district, Munnar and Arakkulam from Idukki District, Ernakulam and Thrippunithura from Ernakulam District, Mannarkkad and Ottappalam from Palakkad district, Panoor and Iritty from Kannur district and Parappanangady and Vengara from Malappuram district. The sample for the study consisted of

12 AEOs (2 AEOs from each Revenue District.

180 Headmasters/ Headmistresses

720 Primary school teachers

The details regarding sample selected for the study are given in the table below.

Tools and techniques used for the Study:

The major tools and techniques used for the study were:

1. **Questionnaire for teachers (General as well as specific questionnaire for teachers)**
2. **Questionnaire for head teachers**
3. **Answer sheet analysis – Error analysis**
4. **Text book analysis (Integration, English and Mathematics of Standard II)**
5. **Class Observation Schedule**
6. **Group discussion schedule for Students, AEO and PTA**

Description of the tools and Techniques

Questionnaire for teachers

General as well as specific questionnaires were given to second standard school teachers. The questionnaires contain both closed and open ended questions. The questionnaires are used to collect views and suggestions of teachers regarding assessment of Revised Kerala curriculum (Integration, English and Mathematics) with respect to its Learning Outcomes, Learning Resources, Learning Process, Evaluation and Support System. Moreover, the practical difficulties encountered by teachers in implementing the revised curriculum and their suggestions regarding different measures for making further revision of the curriculum more effective were also collected by using the questionnaire for teachers.

Questionnaire for Head Teachers

A questionnaire was prepared to collect data from Head teachers to assess the different aspects of revised curriculum such as learning outcomes, learning resources, learning process, support system and evaluation. The questionnaire include questions related towwhether they are checking the teaching manual of teachers, what are the difficulties they are experiencing in giving supports to different areas of Art, Physical Education-Health and work experience, whether they are getting support from different agencies such as SMC/PTA, MPTA, LSG, ALUMNI etc., whether the teachers are sharing the experiences they gained during different training, what are the measures they are taken to provide

support to backward and gifted students, what are the different community activities conducted in school to improve teaching and learning.

Text Book Analysis (Malayalam, English, Mathematics and EVS of Standard II)

Text book analysis was done to find out whether the text books (Integration, English and Mathematics of Standard II) are in conformation with the constructivist paradigm, suitability of its content in attaining learning outcomes, suitability of the content for activity based learning, whether the books contain diversity of learning activities, usechild friendly language, have clarity in pictures, graphs and maps, slots for continuous evaluation, instances of disparity and what are the different areas which need further simplified explanation.

Class Observation Schedule

The class observation schedule was designed as an analytical device to observe and gather factual information regarding the performance of teachers with regard to the components such as Teaching Manual preparation, pre-planning, interest and motivation, learning activities, learning environment, classroom intervention, evaluation and consolidation.

Focus Group Discussion

Focus Group Discussion points were prepared carefully in advance through identifying the main objective(s) of the meeting, developing key questions, developing an agenda, and planning how to record the session. A detailed report is prepared after the session was finished. Observations during the session were noted and included in the report.

Answer sheet analysis (Error analysis)

Answer sheets of the second standard students of all subjects were collected from selected schools. It was reevaluated by considering the learning outcomes stated in the text book and activities given in the worksheet. Analysis was done for all the subjects Integration, English and Mathematics separately.

Data Collection Procedure

Data collection was done by a group of six members in each education sub-districts under the leadership of concerned AEOs and faculty members of DIET. A one day workshop was conducted in the SCERT to the members of data collection for familiarising the tools.

A one day meeting of HMs of 15 schools was conducted by AEO for collecting data from HMs using the questionnaire. The team consists of practising teachers in the subjects of Integration, English and Mathematics, AEO and DIET faculty visited the various schools for collecting data from the teachers, conducting group discussion with PTA/LSG and for observing the classroom.

Questionnaire for teachers and HMs, were administered in 12 sub districts of six Revenue districts(Thiruvananthapuram, Idukki, Palakkad, Ernakulam, Malappuaram, and Kannur) and their responses were collected back. The data thus obtained were scrutinised and only those found complete and correct with respect of all the necessary information above were chosen for analysis.

A series of workshops were conducted for analysing data, tabulation of data and report writing.

Statistical Technique Used

The statistical technique used for the analysis of data was Percentage Analysis.

Findings and suggestions

The findings of the study are given under appropriate heads

Learning outcome

- Study revealed that the characteristic features of the learning outcomes envisaged in the curriculum 2013 were clear to majority of teachers (79.04%) who were teaching in class II. But, 20.96 % of teachers do not have clarity regarding the characteristic features of the learning outcomes envisaged in the curriculum 2013.
- According to majority (76.05%) of teachers learners of second standard couldn't achieve the expected learning outcomes to be aimed through the transaction of the content. Simplification of the content, special training and extended activities are the suggestions given by the teachers of class II.
- It is inferred that 67.66% teachers of standard II couldn't differentiate between short term and long term learning outcomes.
- The learning outcomes of second standard were arranged in such a way as to ensure the continuity and development from the lower to higher classes.

- Almost all the teachers of standard II agree that the outcomes given in different units are observable and measurable; nearly 10% of the teachers disagree with it.
- Study revealed that about 65% of teachers were able to understand the ideas/skills to be acquired from each unit through the learning outcomes.
- According to majority of teachers (65.87%) learning outcomes given in different units of II standard textbooks were according to the age level of learners.
- Majority of teachers (69.46%) opined that the learning outcomes are helpful to some extent for self-evaluation and outcome focused methodology is helpful in ensuring the level of learning envisaged by RTE Act.
- About half of the teachers find difficulty in the time bound completion of learning outcomes. Teachers opined that learning activities are overloaded, need to carry out remedial teaching, different level of learners is there in the class and difficult to focus on all the learning activities given in the text book are the reasons that hinder the time bound completion of learning outcome:

Learning resources

- Majority of teachers favour the most of the characteristics of the textbook like Content appropriateness, Conceptual clarity, Adequate activities, Opportunity to foster the creativity, Language appropriateness, Pictures, lay-out, etc., But, 57.49% of teachers opined that activities considering different levels of learners are not present in the text book.
- Majority of teachers supported the teacher text of standard II in many aspects like text book and teacher text are complementary to each other(97.60%), hints given are suitable for transacting the content(97.01%), helpful in preparing the TM(97.60%), instructions given for CE and TE(95.21%), provided suitable tools for evaluation(95.21%) and helps the teacher in attaining clarity in the general approach of the curriculum.
- Majority of teachers reported that they are using pictures (98.20%), reading materials prepared by teachers (97.01%), Resource CD (77.25%), Tables (88.02%) and Local resources (85.03%) other than TB and TT.

- It is found that 57.49% teachers reported that it is the resource teachers who mainly provide help in the adaptation of CWSN.
- It is found that school is equipped to carry out the activities related to arts education(59.28%), health education(61.68%) and work experience (61.08%) to some extent level. They also reported that they are able to make available local resources to some extent level in the areas related to arts education (68.86%), health education(65.87%) and work experience (65.27%).It is significant to note that only around 50% of teachers opined that they are able to make use of TT for arts education(56.89%), health education(52.69%) and work experience (51.50%) to great extent level.
- Lack of special teachers who possess good skills and aptitude in art subjects, lack of resource persons and difficulty in linking with scholastic area are the major limitation with respect to art education reported by the teachers. Provide special teachers for art education and Clubbing the schools and appointing resource persons in art education are the suggestions given by the teachers.
- Lack of special teachers for sports and health education is the main limitation. Providing resource persons with the co-operation of local bodies, appoint special teachers for sports and ensuring regular service of health workers/nurses in schools are the suggestions given by the teachers.
- Lack of trained teachers and lack of awareness in transacting workbook are the major limitations under work education. Teachers suggested providing training to teachers at the beginning of academic year itself.
- Majority of teachers reported that they evaluated the products(96.41%), encouraged the learners with outstanding products (97.01%) and utilized the possibility of re-using the products (92.81%). Only very few (13.17%) teachers opined that they conducted exhibition of the products.

Learning process

- Half of the teachers of Standard II experienced difficulties while planning learning activities. Life skills, continuous evaluation, community bound activities, values/attitudes, and utilizing learning resources are thrust areas that posed difficulty while planning the learning activities. Enhance infrastructure facilities, ensure ICT availability, provide training in ICT and work experience, recruit teachers in arts and physical education are the remedial measures suggested by teachers to overcome difficulties experienced in the various thrust areas
- Majority of teachers (78.44%) sometimes ensured the development of Process skills in the learners through learning process.
- Majority of Teachers planned and implemented learning activities to attain conceptual clarity through multi-sensory experiences. However 14.37% of the teachers did not do so.
- Majority of teachers (94.01%) reported that curriculum is considered appropriate for enabling learners to apply the knowledge acquired through learning process in their daily life.
- According to teachers, 'lack of time' (70.06%) and 'lack of facilities/materials' (36.53%) are the major difficulties encountered while making use of appropriate learning strategies.
- Majority of teachers of Standard II (71.26%) reported that they have planned and implemented learning activities to overcome the constraints of slow learners.
- The reasons for difficulty while planning and implementing learning activities to overcome the constraints of slow learners are 'lack of specially prepared learning materials' (17.96%) and 'lack of time' (22.75%).Majority (961.08) of the teachers did not ensure the attainment of learning outcomes in different levels of learners.
- Even though majority of teachers (95.03%) implemented learning activities to enrich the abilities of gifted learner, 14.97% of them did not do so due to difficulty in planning challenging learning activities and lack of time.
- Difficulty in planning challenging learning activities and 'Lack of time' are the major reasons for not implementing learning activities for gifted learners.Majority of

teachers(67.66%) sometimes ensured the maximum participation of all learners. Only 29.94% always ensured full learner participation.

- It is serious to note that only 55.69% of teachers always transacted the content in a learner -friendly manner while 41.92% teachers sometimes.

Evaluation

- Even though majority of teachers got a clear idea about Continuous Evaluation, about 13.77% teachers need more clarity regarding Continuous Evaluation.
- A significant number of teachers need more clarity in the area of continuous evaluation viz. assessment of learning process (7.78%), portfolio assessment (4.19%), recording (2.99%) and unit assessment (1.20%).
- It is clear that 32.34% of teachers were not able to ensure learning and to provide support to learners though Continuous Evaluation.
- Majority of teachers are able to carry out learning process and evaluation simultaneously, but a significant number of teachers (16.17%) are not able to undertake the task successfully. Practical difficulties in learning process and evaluation are due to lack of awareness about suitable strategies and giving more emphasis to learning process than evaluation. Significant percentage of teachers (13.77%) reported that the indicators related to different areas of evaluation are not specific. Overcrowded classrooms (24.55%), lack of suitable criteria (15.57%), lack of awareness to the teachers (3.59%) and lack of planning (2.99%) are the other problem faced by teachers during assessment of learning process
- Teachers reported that they provide opportunities for self-assessment (97.60%) and peer assessment(86.23%).
- It is found that 30% of teachers were not preparing indicators for evaluation.
- Majority (94.01%)of teachers are providing opportunities to exhibit their products related to self-evaluation and peer evaluation, but a very few of teachers are not providing at all.
- Majority of teachers (77.84%) are using class test for unit wise evaluation. Teachers are considering different records such as notebook, worksheet, project/seminar report, answer scripts, short notes and creative writings for continuous evaluation. It is

significant to note that 58.68% of teachers are considering project/seminar reports and 69.46% of teachers are considering answer sheets for Continuous Evaluation.

- Even though majority of teachers are giving feedback based on CE, a significant number of teachers (19.16%) are not giving feedback on CE for parents.
- Teachers are providing remedial instruction based on feedback from Continuous Evaluation, while significant percentage of teachers (13.17%) are not providing.
- Giving support (76.05%), Follow-up activities (70.06%), changing the process (46.71%) and Peer tutoring (43.71%) are the various strategies adopted by the teachers for remedial teaching.
- Majority of teachers(74.85%) accurately record the details of continuous evaluation, but it is significant to note that 25.15% of teachers did not record accurately the details of continuous evaluation.
- From the analysis it is clear that 57.49% of teachers are framing different strategies for CWSN learners. But a significant percentage of teachers (42.51%) were not framing different strategies for CWSN learners.
- Even though majority of teachers were not facing any difficulties related to TE, a significant number of teachers (22.16%) have difficulties related to TE. It is found that a few teachers reported that they experienced difficulties related to term evaluation. The other difficulties are inadequate evaluation strategies, difficulty in grading and difficulty in recording.
- About half of the teachers are not able to conduct evaluation related to arts, sports and work experience effectively.
- A significant number of teachers are not carrying out evaluation and recording of socio-emotional areas like empathy, problem solving skill, creative thinking, critical thinking, and coping with stress. Majority of teachers are evaluating and recording socio-emotional areas like interpersonal skill(79.64%), decision making(80,24%), self-awareness(65.87%)and communication skill (64.07%).

Support system

- From the analysis it can be inferred that great majority of teachers received support from HMs(98.20%) and BRC(95.21%). Majority of the teachers received support

from, SMC/ PTA(84.43%), MPTA (88.42%), SSA(82.04%), SSG(76.05%), DIET(55.09%),SCERT(49.10%) and ISM (52.10%). Support from LSG was reported by less than half of the teachers. Only a very low percentage of teachers received support from Alumni, SPC and NGOs.

- Teachers opined that they get support from various agencies for enhancing infrastructure, ensuring child rights, nurturing life skills, creating environmental awareness, waste management, health and physical education , art and work experience and guidance and counselling.
- Majority of the teachers (74.85%) opined that self -improvement using feedback based on monitoring is done to some extent. It is clear that 94.01% of the teachers agreed that academic improvement was done oneself on the basis of the feedback
- Most of the teachers (95.81%) agree that follow up activity was carried out based on the monitoring
- Teachers reported that they are getting training in areas related to content, teaching learning strategies, products , art and work experience education, ICT, /TE, Inclusive education, learning outcome, learning resource, health and physical education and Guidance and counselling. But is serious to consider that they need more clarity in areas related to Health and Physical education, Inclusive Education and guidance and Counselling.
- Below fifty percentage teachers opined that the training was helpful for them in transacting the lessons to a great extent level while 44.3% training was helpful only to some extent level.

Findings based on adequacy of resources in the text book

English

Teachers opined that the activities like role play, miming, storytelling, recitation, choreography are included in the textbook for the acquisition of language skills .Opportunities for story completion and poem completion are there and need to include more. Topics related to Environmental studies which give more importance to language also are to be included

In the case of English text book it is found that48.50% of teachers opined that they are facing difficulty while transacting discourses.

Integration

- According to majority of teachers (89.82%) ideas related to Environment science, are integrated with language. A great majority of teachers reported that preparation of a separate text book for mathematics integrating learning experiences is helpful in improving the mathematical learning abilities of learners (92.22%). The language, pictures, layout etc. are attractive to 86.23% of teachers. According to 70% of teachers, integrating learning activities do not obstruct the attainment of learning outcomes (71.86%) and also language skills and scientific skills are developed through Integration. Integration of learning activities does not hinder the development of Mathematical skills and instructions given in the teacher text are helpful in the transaction of the textbook according to 82.04% of teachers.
- Majority of teachers (97.01%) opined that textbook has suitable learning experiences required for the attainment of language and scientific skills. Same time, a significant number of teachers were not able to carry out learning activities by integrating arts, physical and health education and work-experience. It is serious to consider that integration of learning activities with arts, sports, health and work experience is possible only in some areas.
- According to 12.57% teachers certain learning ideas in class two are difficult to transact through integration.
- Difficulty in ensuring spiralling, textbook not useful for the learners who are weak in studies, and necessity in including more activities related to Mathematics are the demerits reported by teachers in preparing a separate mathematics text book by integrating learning experiences.
- Life related ideas included in the second standard integration textbook are Nationalism, respect for suppressed, respect towards one's own profession, fraternity. Ideas related to life skill and values, social relations, morality, discipline and obedience are included in the textbook.
- Majority of the teachers responded that adequate slots are there in the textbook and teacher text for learning process like Observation (91.62%), Comparison (91.62%), Categorization (91.62%), Analysis (89.22%), Inference (87.43%) and Simple experimentation (91.02%).

Mathematics

- Only half of teachers (50.30%) reported that Learners can analyze and solve problem by themselves to a great extent level using the Mathematics text book.
- The difficulties faced by the teachers while transacting mathematics to the second standard learners are: in transacting abstract mathematical ideas (41.32%), analyzing and solving problems by learners themselves (49.70%), lack of clarity in certain areas of Mathematics and inability to complete worksheets (44.31%).
 - It is observed that only a few teachers provide a variety of learning activities to get adequate pre-requisites to all learners.
 - Majority of teachers (90.42%) have prepared TM using essential resources and activities, but it is noted that very few teachers use additional resources and creative activities other than Teacher Text.
 - Majority of teachers (89.82%) provided a variety of learning activities to get adequate pre-requisites to all learners. At the same time very few teachers provided activities necessary for basic pre-requisite knowledge to very few learners.
 - Learning activities suggested in textbook and teacher text used by half of the teachers were highly effective for developing reflective thinking among learners, where as in half of the teachers opined that the learning activities provided were effective. Spontaneous progress in learning and timely recording in the TM were there in most of the classes observed.
 - Regarding the knowledge construction through learning activities it is found that more than half of the teachers support the learners to attain higher level of knowledge construction through variety of learning strategies including reflective questioning and debating.

Findings based on Classroom Observation: English

- It can be concluded that the performance of majority of the teachers in English class is up to the mark with respect to teaching manual, preparation, interest and motivation, learning activities, learning environment, classroom intervention, reflective thought, consolidation, evaluation process and overview of the class, in most of the classes. But there are cases in which teachers need improvement is

needed with respect to teaching manual, learning environment, classroom intervention, reflective thought, consolidation and overview.

Findings based on Classroom Observation: Mathematics

- It is found that the majority of teachers performed well with respect to teaching manual, preparation, interest and motivation, learning activities, learning environment, classroom intervention, reflective thought, consolidation, evaluation process and overview of the Class, in most of the classes. On the other hand it is noted that in some areas: interest and motivation, attitude and values, learning environment and reflective thinking need further improvement.

Findings based on Classroom Observation: Integration

- Though in most cases teaching manual, preparation, interest and motivation, learning activities, learning environment, classroom intervention, consolidation, evaluation process and overview of the class are very good or good, a considerable number of teachers need further improvement in these areas. It is crucial in the case of reflective thinking.

Findings based on Answer script analysis of English: Error analysis

- Completing the conversation: Majority of the students are supposed to acquire the skills to prepare a conversation using suitable letters and signs with clarity of ideas appropriate to the situation. But many students lack the above mentioned skills.
- Completion of story: Learners show a lack of comprehension in the usage of suitable linguistic expression, sequence of ideas etc.
- Prepare description: Learners find difficulty in completing the activity using letters and signs with clarity of ideas
- Recount riddles: Learners maintain an average standard in riddles and language games.
- Prepare invitation letter: Difficulty in expressing ideas, content, structure and linguistic usages.
- Poem completion: Learners face a practical difficulty in engaging independent creations using appropriate language/expression without spelling mistakes.

Findings based on Answer script analysis of Mathematics: Error analysis

- The learners lack skills for analysis and classification.
- Learners are not able to identify number relations.
- Difficulty in identifying number pattern and geometrical figures
- Difficulty in problem analysis and problem solving

Findings based on Answer script analysis of Environmental Science/integration: Error Analysis

- Skills for analysis , inference, data collection and classification were not attained
- Have not achieved the capability/skill to analyse and formulate inference
- No idea about the habits of hygiene or cleanliness

Findings based on Textbook Analysis: English

- Some of the lessons in units 1, 3 and 5 are not suitable for constructivism. Language elements are included in the context only but there are no activities to develop or practice them.
- The vastness of the content hinders proper transaction. The language used is not up to the level of second standard learners.
- Ample opportunities for process oriented learning are given in the text book.
- The text book has failed to provide variety of activities.
- With respect to the use of language, all the units follow learner friendly approach, but the vocabulary used in the text is quite unfamiliar.
- Most of the pictures are not attractive and lack clarity.
- Some of the lessons in the text require more clarity and explanation.
- Slots ensuring evaluation are not given in each unit.
- There is no possibility of any kind of discrimination throughout the textbook.
- The lessons help to inculcate democratic values among learners.
- The layout of the text book is neither child friendly nor attractive.
- The teacher text facilitates proper planning and creativity.
- ICT integration is a challenging task for practicing teachers. Language activities are not given much importance.

Findings based on Textbook Analysis: Integration

- While analyzing the lessons of environmental studies in second standard, it can be seen that the text book contains activities in tune with constructivist approach.
- The content of almost all the units are suitable and sufficient to attain the learning outcomes.
- The content of almost all the units are suitable for activity based learning.
- Diversity of learning activities is ensured in almost all units
- All the units follow a child friendly approach with respect to the use of language.
- The pictures are not fully appropriate to the lessons. In some of the units, the pictures, graphs etc. are not sufficient or clear (Unit 1: need more clarity for the pictures of public spaces; Unit 4: the picture is not realistic. Pages 57, 60, 61).
- Some of the activities in the textbook need further explanation, elaboration and support (Unit 2: need worksheets after including the reading note related to hygiene; Unit 3: Infectious diseases, non-infectious diseases (Page 51) need more explanation). No need of simplification in any of the units but needs more clarity.
- The text book contains possibilities for continuous evaluation in connection with experiments, observation and other group activities.
- There is no possibility of any kind of discrimination while considering the lessons and learning activities throughout the textbook.
- There are enough slots for the development of democratic values in almost all the units
- The present layout is inadequate for making a qualitative impact on children's thoughts. The teacher text is suitable for the transaction of all the units.
- The hints for ICT enabled learning are not included in the textbook. Activities adequate for acquiring the learning outcomes are less in environmental studies text book as it is in an integrated version.

Findings based on Textbook Analysis: Mathematics

- All the lessons do not go in conformation with constructivism. Though learning activities suitable for construction of knowledge are given in general, some methods

directly related to Math given in some units (Unit 5 and 6) are to be examined and need some modification

- The content is generally helpful for acquiring learning outcomes. Some ideas directly given in the text book are a barrier to awakening the thinking skills of the child.
- Almost all units contain activities suitable for acquiring process skills.
- Diversity of learning activities is ensured in almost all units
- All the units follow a child friendly approach with respect to the use of language. The language used is appropriate for the lessons.
- The pictures used are appropriate for the lessons.
- The parts of lessons which need more elaboration are less.
- Most of the activities in the units are in the simplified form. But, in Unit 3, Nourishing Food Given in Aswin's school and the activity 'Egg and Milk Given to Children' should be simplified.
- Possibilities for continuous evaluations are there in the text book.
- There is no possibility of any kind of discrimination when considering the learning activities given in the lessons throughout the textbook.
- The text book has given only very little importance to group activities.
- Teacher text helps the teachers to plan the learning activities enabling the acquisition of processing skills and to take into consideration the learners of all levels.
- The overall result reveals that there is no drastic or vehement criticism against second standard Mathematics textbook.

Major findings derived from the responses of Head Teachers

- Great majority of the schools conduct SRG meetings more than once in a month.
- The main areas in which the head teachers had offered suggestions to teachers after going through teaching manuals of teachers, were the learning activities (96.11%), learning materials and resources (89.44%), continuous evaluation (87.22%) and writing qualitative notes (72.22%)
- Majority (62.22%) of the head teachers could conduct class observation only 'sometimes'-since they are busy with other official works at school and outside. It is important to note that about (35.56 %) of head teachers reported that they 'always' conduct class observation and provide necessary suggestions

- It is found that 58.33% head teachers always ensure the attainment of learning outcomes by students.
- Majority of the head teachers under study use the services of experts (76.67%) and local resources (63.89%). The various areas where the head teachers use the services of experts and local resources are, for giving experts' classes for teachers (37.78%); awareness programs (33.33%). The other areas include agriculture, experts' classes for students, interviews, arts and physical education, health activities, day celebrations, field trips, workshops, parental help and support and strengthening of PTA.
- Head teachers make use of the services of SMC/PTA/ MPTA /LSG in the following contexts - re-opening festival, day celebration festivals (Mela), noon-meal, anniversary and majority of them for club activities . The other contexts where the services of SMC/ PTA are availed are field trips, infrastructure, awareness programmes, agriculture, celebrations, health activities, camps, seminars and workshops. The services of the alumni of the school are also availed by majority of the head teachers for the same aspects.
- Majority of the head teachers (97.22%) ensure that teachers share ideas they receive from training programmes.
- Head teachers (80%) organize special classes for those who do not know how to read and write and who face difficulties in learning.
- The head teachers reported that for gifted children, they arrange training for competitive examinations (33.33%); quiz and other competitions (22.22%); library and extra reading materials (21.67%); special (extra) training (16.67%); encouragement (13.33%);and expert classes (7.78%).
- It is seen that 71.11 % of head teachers reported that ISM team had not paid monitoring visit to their school. Out of those head teachers who reported that ISM team had paid visit to their schools, 98.8 % reported that the ISM monitoring visit was effective.
- Head teachers reported that that they had received help and support from ISM team in the following ways: - got directions for quality improvement (19.61%) started special training for backward students (19.61%); pointed out the deficiencies (17.64%); got directions for making classes effective (15.69%) possibilities /scope of TLMs became

clear (9.80%); empowerment of teachers (9.80%); got directions for conducting SRGs effectively (7.84%).

- Suggestions offered by head teachers for improvement of ISM are to be conducted in all classes in all the three terms, conduct follow-up supervisions, linked with clusters and teacher trainings, include expert teachers and evaluation should be conducted after (outside) school hours
- Vast majority of head teachers took initiative to carry out cleanliness drive (89.44%) and environment protection activities (83.33%) whereas water resource management and energy conservation activities were done by 29.44% and 23.89% respectively.

Findings based on Focus group Discussion (AEOs)

- Majority of the AEOs (more than 80%) reported that they conduct monitoring of the academic activities and give support wherever and whenever needed. In addition to this they motivate teachers by appreciating their excellence.
- According to them majority of the teachers do not prepare teaching manual as envisaged in the teacher text .It is found that majority of the teachers feel difficulty in writing reflective notes.
- Many of the teachers use teaching learning materials for making the classroom teaching effective. But some of the teachers are not even using the learning materials available in the school. It is found that the major learning material used in the classroom is the textbook itself
- In more than half of the classes the teaching learning process takes place effectively. It is significant to note that certain classes are not at all effective.
- In majority of classes learning products are displayed. But only in certain schools the display of products are periodically updated. It is found that the majority of the teachers are not making use of these products later.
- Service of the teachers in a school is permitted for the smooth conduct of programmes like Youth festival and science fairs in other schools
- AEOs reported that they give creative and valuable suggestions for the smooth conduct of PTA and SMC. They are involved in the programmes of village education committees actively
- All the AEOs reported that the Internal Support Mission (ISM) visits were very much effective in enhancing the academic as well as administrative excellence.

AEOs participate in the DRG training of the Cluster, and they monitor each cluster and make sure that the cluster is conducted as per the module

- The infrastructure facilities of the school as well as the classroom facilities are monitored and necessary suggestions are given for their improvement. AEOs ensure that the funds allotted to schools are properly utilized and the records are kept. They monitor the noon meal programme and ensure that nutritious and hygienic food is given to the students without fail.
- Majority of the AEOs feel that team monitoring is more effective than individual monitoring as both administrative and academic aspects could be monitored within a single visits

Findings based on Focus Group Discussion with PTA

- PTA Members reported that general body meeting will be conducted at the beginning of the academic year and executive committee meetings are conducted as and when required. Most of the executive members attend the executive meetings along with the teachers.
- MPTA and CPTA meetings are conducted for ensuring the security, quality of noon meal and to provide suggestions for academic improvement.
- It is reported that the facilities such as classrooms, toilets, differently abled are available in most of the schools.
- Regarding the revised textbook, they reported that the text books are learner friendly, attractive and suitable for intellectual level to a certain extent. The activities included in the text book are learner friendly and practicable.
- They are unaware of the learning outcomes. No support is rendered by PTA for the CWSN students, but renders services to solve problems, if any. PTA plays an important role in the availability and utilisation of funds.

Practical difficulties encountered by teachers while implementing the curriculum

- The difficulties reported by the teachers for attaining all learning outcomes are lack of time, excess content, organizing day celebration and co-curricular activities, involvement of teachers in duties other than class room teaching, excess activities and presence of different level of learners. Some other areas are higher level of the content, difficult vocabulary and language ambiguity, lack of appropriate activities for differently abled students, insufficient extended activities for enhancing

creativity, inaccessible links and hints and lack of resources and lack of slots to make use of local resources, library and laboratory.

- The difficulties with respect to art education pointed out by teachers are lack of special teachers to deal with art, lack of training, lack of time, lack of financial support, lack of materials and opposition from certain religions section. The suggestions given by the teachers for overcoming these limitations are to appoint specialized teachers for art. To provide support from LSG and to conduct training programmes for other subject teachers to equip them to handle Art classes.
- Some of the teachers experienced difficulties in using the strategies such as investigative learning, metacognition and critical thinking.
- ‘Lack of time’ and ‘Lack of facilities/materials’ were the major difficulties mentioned by the teachers to make use of appropriate learning strategies. The other genuine difficulties reported by teachers are in considering backward learner .
- Difficulties reported by teachers in the implementation of learning activities to enrich the abilities of gifted learners are difficulty in planning challenging learning activities and Lack of time.
- The difficulty faced by the teachers to carry out learning process and evaluation simultaneously is lack of proper planning. The other difficulties reported are giving more emphasis to learning process than evaluation and lack of awareness about suitable strategies.
- It is revealed that 48.50% of teachers were facing difficulty while transacting discourses through Group work (15.57%), Presentation (18.56%), Model presentation (13.17%), Editing (25.15%) and Evaluation (18.56%).
- The practical difficulties mentioned by teachers in the recording of continuous evaluation are lack of sufficient time, excess number of students, lack of timely availability of records, complexity in recording and lack of awareness of recording procedure. The other difficulties reported are inadequate evaluation strategies, difficulty in grading and difficulty in recording, in framing questions suiting different level of learners, lack of time, over loaded content and abundance of students.

Suggestions emerged out of the study

The following are the suggestions derived from the study.

Learning outcome

- Provide more clarity to the teachers regarding the characteristic features of the learning outcomes envisaged in the curriculum 2013.
- Simplification of the content, Special Training to teachers and provision for extended activities are the suggestions given by the teachers of class II to achieve the expected learning outcomes.
- Strengthen the training by emphasizing the ideas/skills to be acquired from each unit through the learning outcomes.

Learning resources

- Since the teachers (57.49%) of second standard opined that activities considering different levels of learners are not present in the text book, provide activities considering different levels of learners.
- Resource teachers mainly provide help in the adaptation of CWSN, so ensure the authorities the service of resource teachers in all needed schools.
- Teaching learning resources in the area of art, physical and health and work experience are present in the teacher text only to some extent level and hence more resources in these areas are to be included.
- Provide resource persons with the co-operation of local bodies; appoint special teachers for sports and ensure regular service of health workers/nurses in schools are the suggestions given by the teachers to overcome the limitation of sports and health education.
- Provide special teachers for art education in each school or clubbing the schools are the suggestions given by the teachers to solve the difficulty faced by the teachers in art education.
- Teachers suggested for providing training to teachers at the beginning of academic year in transacting activities related to work experience.

Learning process

- Half of the teachers of class II experienced difficulties while planning learning activities. It necessitates the intensive training especially in thrust areas like life skills, continuous evaluation, community bound activities, values/attitudes, and utilizing learning resources.
- Limit the classroom strength and provide specially prepared learning materials to overcome the constraints of slow learners and gifted learners.

Evaluation

- Provide more clarity regarding Continuous Evaluation especially Assessment of Learning Process, Portfolio Assessment, Recording and Unit Assessment.
- Provide learning activities which can be executed in the classroom to ensure learning and providing support to learners while carrying out learning process and continuous evaluation simultaneously.
- The result of the study shows that teachers were not preparing indicators for evaluation. So provide proper indicators related to different areas of evaluation.
- Frame the different continuous evaluation strategies for CWSN learners.
- Provide training to teachers for conducting evaluation related to arts, sports and work experience and socio-emotional areas.

Text books

- Teachers opined that there are learning materials / learning ideas in Class two that have difficulty in transacting through integration. So provide necessary instructions to conduct learning activities by integrating subjects as well as arts-sports-health and work-experience.
- Abstract mathematical ideas and too much work sheet make the learning process more difficult, it necessitates the simplification of abstract mathematics.
- Even though the learners of second standard show ability in oral communication, they show average standard in written communication. So, more activities should be given to reinforce letters and signs.

- Learners maintain an average level in the skills: observation, outdoor learning and formulation of inference. Answer sheet analysis revealed that this may be due to lack of written communication, firsthand experience in the class room and similar activities. So provide necessary steps to improve language skills and other process skills.

Textbook - English

- Make sure that all the lessons are suitable for constructivism.
- The vastness of the content hinders proper transaction. The language used is not up to the level of second standard learners. so reduce the content and simplify the language
- Ample opportunities for process oriented learning like choreography, enactment of skit, role-play are given in the text book.
- Provide variety of activities in the text book.
- Make use of familiar vocabulary and make sure that pictures are attractive and clear.
- Make the layout of the text book child friendly and attractive.
- More performance based activities should be ensured in English class rooms. And the reader should include more worksheets based on games.
- Give short and simple stories in all the units.

Textbook - Integration

- Provide pictures fully appropriate and realistic to the lessons.
- Some of the activities in the textbook need further explanation, elaboration, more clarity and support.
- Provide adequate layout for making a qualitative impact on children's thoughts
- Include hints for ICT enabled learning in the textbook and teacher text.

Mathematics

- All the lessons do not go in conformation with constructivism. Provide learning activities suitable for construction of knowledge.
- Provide much importance to the possibility of group activities.
- It'd be better to give activities for the same learning outcomes continuously in one unit for the proper development of process skills. E.g. In order to enforce the idea

of addition in the child in different ways, it can be limited to one or two units. The lessons like Place Value, Practical Issues, etc. which needs rearrangement and everything else related to addition can be included in one unit.

Conclusion

From the findings it can be concluded that the teachers participating in this study were generally in favour of the new curriculum. According to the teachers the structure and organization of the new curriculum at Primary level shows that they find the goals of the curriculum appropriate for primary education. The teachers reported that the suggested teaching and learning activities in the curriculum helped them during teaching -learning process. Textbooks are prepared in tune with the curriculum, but to be revised timely . The study revealed that students' active participation and interest in the subject matter has increased with the new curriculum. The curriculum content has a good sequence and that the subject matter is related to real life issues. However, it is found that subject matter is too detailed that orient students to rote learning especially in Environmental Science. They also think that the time allocated for the loaded curriculum content is not enough to carry out intended curriculum tasks. Although the teachers seemed to approve the major aspects of the new curriculum in general, there were some differences in the ways of transaction due to certain constraints like lack of time, overloaded content and lack of facilities. Although certain teachers seemed to use instructional technology, field trips and observations more often, it was observed that these teaching methods and techniques were rarely or never used during instruction in general. Although the instructional materials used by these teachers show variety (written materials, examples and models, diagrams and graphs, living things,), the findings of this study show that written materials and text book were the most commonly used instructional materials in classes .Even though there is provision for the use of ICT materials in learning process, majority of teachers are not using ICT facilities. Since the physical structure and facilities of the schools emerged as one of the major factors constraining the implementation process of the new primary curriculum, the first focus is to be given to facilities, resources & materials and existing and emerging technologies. In order to use inquiry-based practices, teachers should be supported with rich and satisfactory facilities and resources. However, the results of this study show that teachers working in different schools do not have access to the same satisfactory conditions to use the desired implementation tasks in their classrooms.

Situation is far from ideal in many schools trying to implement the new curriculum in the way it is intended.

It is seen that the findings of this study can be used to help curriculum developers in planning strategies for improving the present Primary school curriculum. Findings were varied in relation to parents' involvement in supporting the implementation of the curriculum and in their active participation in school. It was found that effective consultation and parental involvement to enhance their children's learning is being encouraged. Textbooks exert a dominant influence on teaching and learning in a significant number of classrooms. Also the teacher text is suitable for transaction of all units. There was an overdependence on text book and workbook activities, which often resulted in pupils engaging in unchallenging and repetitive tasks. There was little emphasis on the development of higher-order thinking skills, on nurturing pupils' creativity, or on encouraging pupils to respond emotionally and imaginatively. The findings suggest strongly that teachers require additional supports to broaden their teaching strategies and approaches and to further focus on the process approach. There is a need for additional guidance for schools on how to adapt the curriculum to meet the diverse needs of learners. It is serious to consider the instruction and evaluation of Arts, Physical and Health Education and Work experience. Serious improvement is needed in these areas. Most schools had not developed whole-school plans for assessment. Monitoring is made by AEOs, but needs effective feedback and follow up. Although the teachers moderately or fully approved many characteristics of the new curriculum at primary level, they pointed to make necessary changes for the language and subject curriculum.

The learners of second standard show ability in oral communication, but they show average standard in written communication. So, more activities should be given to reinforce letters and signs. Learners maintain an average level in the skills observation and formulation of inference. Answer sheet analysis revealed that this may be due to lack of written communication, firsthand experience in the class room and similar activities. So provide necessary steps to improve language skills and firsthand experience in the class room itself. The study highlighted the need for simplified and reorganized curriculum for the attainment of full vision of the constructivist approach and also for catering the needs of CWSN. Working together and sharing ideas and experiences help teachers implement the curriculum more successfully.

Chapter - 1

Introduction

The prime objective of education is the socialization of human beings and the school is the pivotal agency to organize and transmit all the cultural and social values to individuals. Curriculum is the most effective tool to disseminate all these values to the society and individuals. To assess a curriculum a breathless effort is needed. Assessment of the process of curriculum development plays a vital role in channelizing and keeping the direction of young generation on the desired way for the achievement of national objectives and keeping the system update respect to changing scenario of time. Curriculum development process also undergoes transformation due to newer developments in education and its evaluation keeps it valid, reliable and keeps it in the right direction. Recommendations through evaluation for any process have a message of eternity for it. Therefore the needs to organize the curriculum development process in such a way which should prepare young men and women for pursue of the higher education as well as to make them able to adjust with their practical life meaningfully and productively are necessary. The goals of education can be attained only through valid reliable curriculum and proper evaluation of the process for updating and fulfilling required social needs.

Current reconceptualization of curricular frameworks place the curriculum content in more ecologically valid contexts, making it more inquiry based, and urging the adoption of outcomes assessment measures which tap students' abilities to engage in activities rather than test their abilities to regurgitate rote learnt facts. Such reconceptualization also place greater emphasis on the need to develop students' critical thinking and problem solving skills so that they will be prepared for the challenges and opportunities of the new millennium. With the aim of maximizing the efforts to bring about the proposed curricular reforms and to increase the success of the curriculum implementation process, there arise the need to make careful descriptions of what transpires in classrooms on a daily basis and why this happens. This will allow educationalists to find ways to support teachers, as they are required to adopt retooled and reformed curricula. If this is not done teachers continue with their routines: their previous experiences, what has worked in the past. As a result, change does not occur and the implementation of a new curriculum does not conform to the curriculum intended by curriculum designers.

It helps us to visualize how curriculum developers' decisions are interpreted and practiced by teachers in classrooms. The rich information collected through the survey questionnaire also helps us to identify the forces applying to the process of implementation. In turn what does or does not get implemented in the curriculum can be determined and the reasons for the differences between intended and implemented curricula can be recognized. This study also helps to identify the practical problems faced by teachers. The findings of this study can help teachers to improve their performance and instructional practices. This valuable information in turn can help curriculum planners, authorities, decision makers to develop better-designed materials and make further progress in the curriculum design.

The Kerala Curriculum Framework, adopted in 2007 (KCF 2007), was recognized by far and wide, that it was an exemplary, modified and progressive document that the State had to offer - apt for the Kerala social and educational scenario, after the National Curriculum framework (NCF 2005) guidelines laid down by the NCERT. The Curriculum developed on the basis of KCF 2007 –from the primary to the higher secondary level - giving thrust to philosophical and psychological premises of Social Constructivism, Critical Pedagogy, Multiple and Emotional intelligences, Inclusion in Education, etc., stressed on the 'Mental process of the learners.

Primary school curriculum was always considered the cornerstone of any educational progress, because it had direct influence on the 'making' process of the learner. The Right of Children to Free and Compulsory Education Act (RTE Act, 2009/2010) underlines the important aspects of the primary school curriculum. The Primary School curriculum in Kerala after curricular revision of KCF 2007, already had conformed to these aspects.

Curriculum evaluation is an essential phase in the development of a progressive curriculum. Curriculum development is an evolving process which makes curriculum suitable to the individual and social needs as well as the goals of the nation. Curriculum at school education revises in Kerala after every five years. The curriculum and textbook prepared as per the Kerala Curriculum Framework (KCF, 2007) has been reviewed by an expert committee appointed by government of Kerala and an approach paper developed to change the curriculum and textbooks of School education in Kerala. As a result the text books of 1st, 3rd, 5th, 7th and 11th standards were revised in the academic year 2014-15. The text books of 2nd, 4th, 6th, 8th and 12th standards were revised in 2015-16 and textbook of 9th and 10th were revised in 2016-17 academic years. A status survey at higher

secondary level and a baseline study at primary and secondary levels have been conducted during the period.

The present study is conducted after the implementation of current cycle of curriculum development. The study is planned to conduct in different phases: lower primary level and upper primary level. The present investigation covers upper primary level of standard 2 on the subjects such as English, Mathematics and Integration. The study focused on five major dimensions of curriculum, i e, Learning outcome, Learning resources and materials, Learning Process, Evaluation system and Teacher support mechanisms. Data were collected from the different stakeholders of educational system including students, teachers, parents, and heads of institutions, AEOs and members of the local bodies.

Need and Significance of the Study

Curriculum implementation refers to the act of working out the plans and suggestions that have been made by **curriculum** specialists and subject experts in a classroom or school setting. Teachers are the main **curriculum** implementers, while at the same time students, parents, school administrators can be directly or indirectly involved in the **implementation** process. Curriculum implementation entails putting into practice the officially prescribed courses of study, syllabuses and subjects. The process involves helping the learner acquire knowledge or experience. It is important to note that curriculum implementation cannot take place without the learner. The learner is therefore the central figure in the curriculum implementation process. Implementation takes place as the learner acquires the planned or intended experiences, knowledge, skills, ideas and attitudes that are aimed at enabling the same learner to function effectively in a society.

The teachers view their role in curriculum implementation as an autonomous one. They select and decide what to teach from the prescribed syllabus or curriculum. Since implementation takes place through the interaction of the learner and the planned learning opportunities, the role and influence of the teacher in the process is indisputable. It is a fact that teachers are pivotal in the curriculum implementation process. If the teacher is to be able to translate curriculum intentions into reality, it is imperative that the teacher understand the curriculum document or syllabus well in order to implement it effectively. SCERT is the apex body in the development of School curriculum. Timely restructuring and

reification of curricula are taking place incorporating the developments in Science, technology and in other areas. Thus in 2013 new curriculum was designed and so it is significant to assess the implementation of the curriculum for the future curriculum revisions. A concurrent review and assessment of the Curriculum being followed would help to assess the merits and demerits of the existing curriculum as well as to offer suggestions to implement it in a better manner or to fill the gap, if any. Review of the curriculum is to evaluate its effectiveness after it has been implemented and reflect on what students, teachers and the society did and did not get out of it. Hence, the study, 'Assessment of the Implementation of Kerala Curriculum 2013 At Primary Level: Standard II'.

The study has carried out by considering the following objectives:

Objectives

- To assess the Revised Kerala curriculum (Class- VII) with respect to
 - i. Learning Outcomes
 - ii. Learning Resources
 - iii. Learning Process
 - iv. Support System
 - v. Evaluation
- To find out the practical difficulties encountered by teachers in implementing the revised curriculum.
- To suggest measures for making further revision effective.

Methodology

Method

Survey method and Document analysis are the major methods used for collecting data for the present study.

Sample of the study

The present study was conducted in primary schools (second standard) of 6 Revenue districts(Thiruvananthapuram, Idukki, Palakkad, Ernakulam, Malappuaram, and Kannur). From each Revenue district two sub districts were selected for the collection of data. The

sub districts selected were: Thiruvananthapuram South and Attingal from Thiruvananthapuram district, Munnar and Arakkulam from Idukki District, Ernakulam and Thrissur from Ernakulam District, Mannarkkad and Ottappalam from Palakkad district, Panoor and Iritty from Kannur district and Parappanangadi and Vengara from Malappuram district. The sample for the study consisted of 12 AEOs (two AEOs from each Revenue District, 180 Headmasters/ Headmistresses (15 Headmasters from each sub district) and 540 primary school teachers (45 teachers from each sub district)

Tools and techniques used for the Study

Series of workshops were conducted by the SCERT for developing the various tools for data collection. Members included in the tool preparation work shops consisted of subject concerned faculties from SCERT, AEO, experts from various universities, training colleges and colleges, teachers from higher secondary, secondary and practicing teachers from the classes. The major tools and techniques used for the study were:

1. **Questionnaire for teachers (General as well as specific questionnaire for teachers)**
2. **Questionnaire for head teachers**
3. **Answer sheet analysis – Error analysis**
4. **Text book analysis (Integration, English and Mathematics of Standard II)**
5. **Class Observation Schedule**
6. **Group discussion schedule for Students,AEO and PTA**

Description of the tools and Techniques

Questionnaire for teachers

General as well as specific questionnaires were given to second standard school teachers. The questionnaires contain both closed and open ended questions. The questionnaires are used to collect views and suggestions of teachers regarding assessment of Revised Kerala curriculum (Integration, English, and mathematics) with respect to its Learning Outcomes, Learning Resources, Learning Process, Evaluation and Support System. Moreover, the practical difficulties encountered by teachers in implementing the revised curriculum and their suggestions regarding different measures for making further revision of the curriculum more effective were also collected by using the questionnaire for teachers.

Questionnaire for Head Teachers

A questionnaire was prepared to collect data from Head teachers to assess the different aspects of revised curriculum such as learning outcomes, learning resources, learning process, support system and evaluation. The questionnaire include questions related to whether they are checking the teaching manual of teachers, what are the difficulties they are experiencing in giving supports to different areas of Art, Sports-Health and work experience, whether they are getting support from different agencies such as SMC/PTA, MPTA, LSG, ALUMNI etc., whether the teachers are sharing the experiences they gained during different training, what are the measures they are taken to provide support to backward and gifted students, what are the different community activities conducted in school to improve teaching and learning.

Text book analysis (Integration, English and Mathematics of Standard II)

Text book analysis was done to find out whether the text books (Integration, English and Mathematics of Standard II) are in conformation with the constructivist paradigm, suitability of its content in attaining learning outcomes, suitability of the content for activity based learning, whether the books contain diversity of learning activities, use child friendly language, have clarity in pictures, graphs and maps, slots for continuous evaluation, instances of disparity and what are the different areas which need further simplification explanation.

Class observation schedule

The observation schedule was designed as an analytical device to observe and gather factual information regarding the performance of teachers with regard to the components such as Teaching Manual preparation, pre-planning, interest and motivation, learning activities, learning environment, classroom intervention, evaluation and consolidation.

Focus Group Discussion

Focus Group Discussion points was prepared carefully in advance through identifying the main objective(s) of the meeting, developing key questions, developing an agenda, and planning how to record the session. A detailed report is prepared after the session was finished. Observations during the session were noted and included in the report.

Data Collection Procedure

Data collection was done by a group of six members in each education sub-districts under the leadership of concerned AEOs and faculty members of DIET. A one day workshop was conducted in the SCERT to the members of data collection for familiarising the tools.

A one day meeting of HMs of 15 schools was conducted by AEO for collecting data from HMs using the questionnaire. The team consists of practising teachers in the subjects of Malayalam, English, Environmental Science, Social Science and Mathematics including AEO and DIET faculty visited the various schools for collecting data from the teachers, conducting group discussion with PTA/LSG and for observing the classroom.

Questionnaire for teachers and HMs, were administered in 12 sub-districts of six Revenue districts (Thiruvananthapuram, Idukki, Palakkad, Ernakulam, Malappuram, and Kannur) and their responses were collected back. The data thus obtained were scrutinised and only those found complete and correct with respect of all the necessary information above were chosen for analysis.

A series of workshops were conducted for analysing data, tabulation of data and report writing.

Statistical Technique Used

The statistical technique used for the analysis of data was Percentage Analysis.

Chapter 2

ANALYSIS AND INTERPRETATION

The present study is to assess the implemented curriculum in second standard of the Kerala state. This part presents the analysis of data collected from various stakeholders of primary education using various methods. Data were collected from the teachers, headmasters, students, PTA/LSG members and AEOs and analyses separately. Classroom observations were also conducted by using the schedule. An in-depth analysis of textbook and teacher text was also analyzed and presented.

Data collected from the teachers regarding the learning outcome, learning resources, learning process, evaluation and support system are analyzed separately and it is presented in the suitable heads.

I. Learning outcome

The teachers of the second standard were asked to mark their responses regarding the characteristics of learning outcomes envisaged in the Curriculum 2013. The responses were collected and tabulated. The results are given under the subheadings.

I. Clarity of the features of the learning outcomes

The teachers were asked to mark their opinion regarding the clarity of different features of the learning outcomes envisaged in the curriculum 2013 as 'Yes' or 'No'. The responses obtained from teachers are given in Table 1.1.

Table 1.1

Clarity of the features of the learning outcomes envisaged in the curriculum 2013

Statement	Responses (%)	
	Yes	No
Clarity regarding features of the learning outcomes envisaged by curriculum 2013	79.04	20.96

From Table 1.1, it is observed that majority of teachers (79.04%) have a clear idea regarding the characteristic features of the learning outcomes envisaged in the curriculum

2013. But 20.96% of teachers opined that they don't have the clear idea of the characteristic features of the learning outcomes envisaged in the curriculum 2013.

Therefore it can be inferred that the characteristic features of the learning outcomes envisaged in the curriculum 2013 are clear to majority of teachers who are teaching in class II. It should be noted that among the teachers of Class II, 20.96 percent of teachers do not have clarity regarding the characteristic features of the learning outcomes envisaged in the curriculum 2013.

The second standard teachers need more clarity about the features of short term and long term achievement, activity oriented learning outcomes, and Inclusive learning.

1. Ensuring the attainment of expected learning outcomes

The teachers are asked to mark their opinion regarding the ensuring of attainment of expected learning outcomes through the transaction of content as 'Yes' or 'No'. The responses obtained from teachers are given in Table 1.2.

Table 1.2

Ensuring the attainment of expected learning outcomes in all learners

Statement	Response (%)	
	Yes	No
Ensuring the attainment of the expected learning outcomes in all learners through the transaction of the content.	23.95	76.05

Majority of teachers (76.05%) teaching in standard II opined that they cannot ensure that all learners attained the expected learning outcomes to be aimed through the transaction of the content. Only 23.95% of teachers could ensure that all learners achieved the expected learning outcomes through the transaction of the content.

It can be inferred that the learners of second standard couldn't achieve the expected learning outcomes to be aimed through the transaction of the content.

Teachers, who couldn't ensure the attainment of expected learning outcomes in all learners through the transaction of the content, suggested following measures to be practiced and included in the textbook of class II-simplification of the content, extended activities, peer teaching and special training

2. Differentiating short term and long term learning outcomes

The teachers are asked whether they could differentiate between the short term and long term learning outcomes imbibed in mathematics textbook and responses given by the teachers are collected presented in Table 1.3.

Table 1.3

Differentiating short term and long term learning outcomes

Statement	Response (%)		
	To a great extent	To some extent	Not at all
Differentiate between the short term and long term learning outcomes	29.34	67.66	2.99

From table 1.3, it is clear that majority (67.66%) of teachers teaching in standard II could differentiate short term learning outcomes from long term learning outcomes only to some extent. Only 29.34% of teachers could differentiate between short term and long term learning outcomes.

Therefore it is inferred that the teachers of standard II couldn't differentiate between short term and long term learning outcomes.

3. Spiraling of learning outcomes to ensure continuity and growth

The teachers are asked whether the learning outcomes are arranged in such a way to ensure the continuity and development of it from the lower to higher classes. The responses marked by teachers are presented in Table 1.4.

Table 1.4

Spiraling of learning outcomes to ensure continuity and growth

Statement	Yes	No
Arrangement of the learning outcomes in such a way to ensure the continuity and development of it from the lower to higher classes	93.41	6.59

From the table, it is clear that a great majority (93.41%) of teachers of standard II agreed that the learning outcomes are arranged in such a way as to ensure the continuity and development of it from lower to higher classes. Thus it can be inferred that the learning outcomes are arranged in such a way to ensure the continuity and development of it from the lower to higher classes.

Teachers who were against the opinion that the learning outcomes are arranged in such a way as to ensure the continuity and development have suggested the changes such as local text or local resources can be used, in some of the learning outcomes, spiraling is not ensured, text should follow simple to complex method, the content of the text book has to be reduced and teachers should be given more time to process the activities.

4. Observable and measurable learning outcomes

Teachers of standard II were asked whether the learning outcomes given in different units are observable and measurable. The responses of the teachers are presented in Table 1.5.

Table 1.5

Observable and measurable learning outcomes given in different units

Statement	Yes	No
Opinion regarding observable and measurable learning outcomes	90.42	9.58

The table shows that a great majority of teachers (90.42%) teaching in II standard opined that the outcomes given in different units are observable and measurable. Minor percentage (9.58) of teachers opined that the learning outcomes given in different units are not observable and measurable.

Almost all the teachers of standard II agree that the outcomes given in different units are observable and measurable, nearly 10% of the teachers do not agree to it.

5. Acquisition of ideas/ skills from each unit through the learning outcomes

The teachers were asked whether they could understand the ideas/ skills to be acquired from each unit through the learning outcomes. The responses of the teachers are presented in table 1.6.

Table 1.6

Acquisition of ideas/ skills from each unit through the learning outcomes

Statement	To a great extent	To some extent	Not at all
Understanding the ideas/ skills to be acquired from each unit through the learning outcomes.	65.87	32.93	1.20

As per the table, majority (65.87%) of teachers teaching II standard opined that they could understand to a great extent the ideas/skills to be acquired from each unit of text book through learning outcomes. But, 32.93% responded that they could understand the ideas/skills to be acquired only to some extent. About 1.20% of teachers opined that they Not at all understand the ideas/ skills to be acquired from each unit of text book through the learning outcomes.

It is observed that 34% of teachers not able to understand the ideas/skills to be acquired from each unit through the learning outcomes.

6. Learning outcomes according to the age-level of the learners

The teachers are asked to opine whether the learning outcomes are given according to the age- level of the learners and the responses are given in Table 1.7.

Table 1.7

Learning outcomes according to the age-level of the learners

Statement	To a great extent	To some extent	Not at all
Learning outcomes are given according to the age-level of the learners	65.87	32.93	1.20

The table 1.7 shows that, 65.87% of teachers who teach in class II opined that learning outcomes are age specific only to a great extent and 32.93% opined that it is some extent. Whereas 1.2% of teachers opined that the learning outcomes are not at all age specific. It can be concluded that the learning outcomes given in different units of II standard textbooks are not according to the age level of learners

7. Learning outcomes helpful for self-evaluation

The teachers are asked to respond whether the learning outcomes imbibed in textbook are helpful for self-evaluation. The responses of the teachers are given in Table 1.8.

Table 1.8

Learning outcomes helpful for self-evaluation

Statement	To a great extent	To some extent	Not at all
Learning outcomes are helpful for self-evaluation	29.34	69.46	1.20

Table 1.8 shows that 29.34% of teachers opined that learning outcomes are helpful to a great extent for self-evaluation and 69.94% opined that it is helpful to some extent. Only 1.20% of teachers opined that the learning outcomes are not at all helpful for self-evaluation.

Result shows that majority of teachers have the opinion that the learning outcomes are helpful to some extent for self-evaluation.

8. Time bound completion of learning outcomes

The responses regarding the possibility of time bound completion of the learning outcomes is recorded as ‘Yes’ or ‘No’ and it is presented in Table 1.9.

Table 1.9
Time bound completion of learning outcomes

Statement	Yes	No
Time bound completion of the given learning outcomes is possible	54.49	45.51

From Table 1.9, it is found that 54.49% of teachers of II standard reported that the time bound completion of learning outcome are not possible. Whereas 45.51% of teachers agreed that time bound completion of learning outcomes is possible.

It can be inferred that majority of the teachers find difficult in the time bound completion of learning outcomes in standard II.

Majority of the teachers opined that the following are the reasons that hinder the time bound completion of learning outcome:

- Learning activities are overloaded
- Need to carry out remedial teaching
- Different level of learners is there in the class
- Find it difficult to focus on all the learning activities given in the text book

9. Outcome focused methodology to ensure the level of learning proposed by RTE

The teachers were asked to record their opinion whether the outcome focused methodology is helpful in ensuring the attainment of level of learning envisaged by RTE. The responses are presented in Table 1.10.

Table 1.10

Outcome focused methodology to ensure the level of learning proposed by RTE

Statement	Yes	No
Outcome focused methodology helpful in ensuring the attainment of level of learning envisaged by RTE	92.22	7.78

Table 10 shows that a great majority of teachers (92.22%) opined that the outcome focused methodology is helpful in ensuring the level of learning envisaged by RTE. But, 7.78% opined that outcome focused methodology is not helpful in ensuring the level of learning envisaged by RTE.

It is noteworthy that about majority of teachers has the opinion that the outcome focused methodology is helpful in ensuring the level of learning envisaged by RTE Act.

II. Learning resources

The responses of second standard teachers regarding the learning resources are analysed and the results are given under various subheadings.

Features of Textbook

The teachers are asked to mark their opinion regarding different features of the textbook as 'Agree' and "Disagree". The responses obtained from 500 Malayalam teachers were tabulated and analyzed. The result showing the percent of teachers agreed or disagreed to different features of text book are given in Table 2.1.

Table 2.1
Opinion of teachers regarding the features of Textbook

Statements	Agree	Disagree
Content appropriate to the level of learner	88.62	11.38
Conceptual clarity	94.61	5.39
Adequate activities are given in the text book to achieve the learning out comes	81.44	18.56
Language appropriate to the level of learners	88.62	11.38
Pictures, lay-out, etc., arouse interest in the learners	92.22	7.78
Activities considering different level of learners	57.49	42.51
Adequate follow up activities are mentioned	86.23	13.77
Opportunity to foster the creativity of learners	93.41	6.59
Units are framed considering the possibilities of varied learning strategies	95.21	4.79
Concepts are arranged spirally	88.02	11.98
Slots for ICT are given for effective learning	84.43	15.57
Adequate activities are given in appropriate situations to enhance values and attitudes in learners	95.81	4.19

From the Table 2.1 it is found that a great majority of teachers reported that the text book provides opportunity to foster creativity of learners, lessons are framed considering varied learning strategies and opportunity for the learners to enhance their creativity and the activities given in the text book are adequate to enhance values and attitudes in learners.

Majority of teachers (70-89%) agreed that slots for using ICT are given for effective learning, learning materials are arranged in a spiraling manner, specifications for required extended activities, the learning activities given in the Text book are appropriate to achieve the learning outcomes, clarity of lessons, suitability of pictures and lay out to arouse interest in the learners and content appropriate to the level of the learners. Study also reveals that 42.51% of respondents disagreed that activities considering the specially-abled are present in the text book.

Even though majority of teachers favours the most of the characteristics of the textbook like Content appropriate, Conceptual clarity, Adequate activities , Opportunity to foster the creativity, Language appropriate, Pictures, lay-out, etc., But, 57.49% of teachers opined that those activities considering different levels of students are not present in the Malayalam text book.

The following are opinions and suggestions of the teachers of standard 2 after analysis of the Text book and

- No special activities for CWSN students
- Include more activities in mathematics for CWSN students
- More consideration for CWSN students
- Provide simple and interesting activities
- Lack of follow-up activities
- ICT facilities are not feasible in class rooms
- Provide more learning activities
- Lack of suitable activities
- Provide separate text books to CWSN students with big font size and pictorial representations
- Provide activities including pictures
- No spiraling in mathematics

Features of Teacher text (TT)

The teachers are asked to mark their responses regarding different features of the teacher text as 'Yes' or 'No'. The responses obtained from teachers were tabulated and analysed. The result showing the percent of teachers agreed or disagreed to different features of teacher text are given in Table 2.2.

Table 2.2
Responses of teachers regarding the features of teacher text

Statements	Yes	No
1. Text book and the teacher text are complementary to each other	97.60	2.40
2. Given hints are suitable for transacting lessons	97.01	2.99
3. Helpful in preparing TM	97.60	2.40
4. Instructions are given for CE and TE	95.21	4.79
5. Suitable additional information is provided for the transaction of the lesson	80.84	19.16
6. Suitable tools for evaluation are provided	95.21	4.79
7. The reference books and sites referred in the T.T are helpful for the teachers for the conceptual transaction of the lessons.	82.04	17.96
8. The division of periods for each units is suitable for its transaction	61.08	38.92
9. Gives clear cut idea about the right based education envisaged by RTE act	94.61	5.39
10. Helps the teacher in attaining clarity in the general approach of the curriculum	97.01	2.99
11. It provides clarity in moral and professional ethics to be practiced by the teachers	94.01	5.99

Table 2.2 reveals that a great majority of teachers (greater than 90%) in second standard reported that Text book and the teacher text are complementary to each other, Given hints are suitable for transacting lessons, Helpful in preparing TM, Instructions are given for CE and TE, Suitable tools for evaluation are provided, Gives clear cut idea about the right based education envisaged by RTE act, Helps the teacher in attaining clarity in the general approach of the curriculum and It provides clarity in moral and professional ethics to be practiced by the teachers

Majority of teachers (70-89%) agreed that in the teacher text Suitable additional information is provided for the transaction of the lesson, and the reference books and sites referred in the T.T are helpful for the teachers for the conceptual transaction of the lessons.

It is noteworthy that 38.29% of teachers opined that the division of periods given based on the units is not appropriate for the transaction.

From the results it can be inferred that, even though majority of teachers supports the teacher text of standard II in many aspects 38.25% opined that the division of periods for each units is not suitable for its transaction.

The following are the suggestions and apprehensions shared by the teachers with regarding to teacher text.

- Periods allotted for units are not sufficient
- Provide more simple and interesting activities to slow learners
- Lack of suitable resources
- Provide more worksheets to slow learners
- Non availability of resource books
- Lack of ICT facilities especially in English
- Precise information regarding resources and Web sites
- Insufficient time for content transaction
- Provide variety of follow-up activities'

Materials used other than the TB and TT

Responses of teachers regarding different materials used other than textbook and teacher text for ensuring the learning outcome in the learners of second standard are presented Table 2.3.

Table 2.3
Materials used other than the TB and TT

Materials	Percentage
a. Reading materials prepared by the teacher	97.01
b. Local resources	85.03
c. Resource CD (video, audio)	77.25
d. Pictures	98.20
e. Tables	88.02

From the table 2.3 it is found that a great majority of teachers reported that they use pictures (98.20%), reading materials prepared by teachers (97.01%), Resource CD (video, audio), (77.25%), Tables (88.02%) and Local resources (85.03%) other than TB and TT.

Teachers reported that they use pictures (98.20%), reading materials prepared by teachers (97.01%), Resource CD (video, audio), (77.25%), Tables (88.02%) and Local resources (85.03%) other than TB and TT.

Materials useful for the adaptation of CWSN

Responses of teachers regarding different materials useful for the adaptation of CWSN learners of second standard are presented Table 2.4.

Table 2.4
The facilities which help for adaptation of CWSN students

Facilities	Percentage
a. Text book	60.48
b. Teacher text	64.67
c. Infrastructure	58.68
d. Resource teachers	57.49

It is found from table that majority of teachers reported that resource teachers (57.49%) helps them in the adaptation for the CWSN and the same by text book (60.48%), teacher text (64.67%) and Infrastructure (58.68%) also used for the adaptation of the CWSN students. From this it can be inferred that resource teachers mainly provide help in the adaptation of CWSN.

The following are the different materials used by the teachers of second standard for the adaptation of CWSN learners

- Games
- Interesting learning resources
- Provide pictures for colouring to CWSN students
- Special training for teachers
- Ensure the assistance of peer group
- Ensure resource teachers
- Provide interesting worksheets
- Ensure participation of parents

Teaching learning resources for art education

Response of the teachers after the evaluation of teaching learning resources for art education is presented in Table 2.5.

Table 2.5
Teaching learning resources for art education

Statements	Great extent	Some extent	Not at all
Suitable situations for transaction are given in the textbook	62.28	36.53	1.20
Instructions are there to frame necessary resources in the TT of different subjects	67.66	29.34	2.99
The school is well equipped to carry out these activities	32.93	59.28	7.78
Able to make available local resources in these areas	19.16	68.86	11.98
Able to make use of teacher text for these areas	56.89	39.52	3.59
Able to make use of activity books	43.11	34.73	22.16

Based on the table 2.2 it is seen that Suitable situations for transaction are given in the textbook (62.28), Instructions are there to frame necessary resources in the TT of different subjects (67.66%) and Able to make use of teacher text for these areas (56.89%) are Great extent. But in the case of teaching learning resources for art education, the school is well equipped to carry out these activities and Able to make available local resources in these areas **are** some extent. It can be inferred that teaching learning resources in the area of art are present in the TT only to some extent level.

Evaluation of teaching learning resources for sports and health education

Response of the teachers after the evaluation of teaching learning resources for sports and health education is presented in Table 2.6.

Table 2.6
Evaluation of teaching learning resources for sports and health education

Statements	Great extent	Some extent	Not at all
Suitable situations for transaction are given in the textbook	46.71	50.30	2.99
Instructions are there to frame necessary resources in the TT of different subjects	50.90	43.71	5.39
The school is well equipped to carry out these activities	32.34	61.68	5.99
Able to make available local resources in these areas	16.77	65.87	17.37
Able to make use of teacher text for these areas	52.69	40.72	6.59
Able to make use of activity books	32.93	38.92	28.14

Table 2.6 reveals that the teachers are opined Suitable situations for transaction are given in the textbook (50.30), The school is well equipped to carry out these activities (61.68%) and Able to make available local resources in these areas (65.87%) to some extent.

Table also shows that the teachers are opined Instructions are there to frame necessary resources in the TT of different subjects (50.90%) and Able to make use of teacher text for these areas (52.69%) to a great extent.

It can be inferred that teaching learning resources in the area of sports and health are present in the TT only to some extent level.

Evaluation of teaching learning resources for work experience education

Response of the teachers after the evaluation of teaching learning resources for **work experience** education is presented in Table 2.7.

Table 2.7

Evaluation of teaching learning resources for work experience education

Statements	Great extent	Some extent	Not at all
• Suitable situations for transaction are given in the textbook	52.10	44.31	3.59
• Instructions are there to frame necessary resources in the TT of different subjects	56.29	38.92	4.79
• The school is well equipped to carry out these activities	29.34	61.08	9.58
• Able to make available local resources in these areas	16.77	65.27	17.96
• Able to make use of teacher text for these areas	51.50	39.52	8.98
• Able to make use of activity books	34.73	39.52	25.75

Based on the table- it is found that 44.31% of teachers opined that slots appropriate for conceptual transaction are provided in the teacher textfor Work experience to some extent dimension while 52.10% teachers opined to great extent level.

About 38.92% of teachers reported that instructions for framing necessary resources for Work experience are there in teacher text to some extent level and 56.29% of teachers to some extent level.

Only 29.34% teachers opined that suitable materials related to Work experience are available in the school to great extent while 61.08% reported that to some extent. About 16.77% reported that resources are available to a great extent level while 65.27% reported

it to some extent level. Very few (17.96%) reported that suitable materials related to Work experience and local resources are not at all available in their schools.

About 39.52% of teachers reported that they make use of TT for the area to some extent level while about 51.50% to great extent level. About 39.52% of teachers reported that they make use of activity book to some extent level whereas 34.73% teachers opined to great extent level. It can be inferred that teaching learning resources in the area of work experience are present in the TT only to some extent level.

Art: Lack of special teachers who possess good skills and aptitude in art subjects, Lack of resource persons and Difficulty in linking with scholastic area are the major limitation of the art education. Provide special teachers for art education and Clubbing the schools and appointing resource persons in art education are the suggestions given by the teachers.

Sports and Health Education: Lack of special teachers for sports and health education is the main limitation. Providing resource persons with the co-operation of local bodies, Appoint special teachers for sports and Ensuring regular service of health workers/nurses in schools are the suggestions.

Work experience: Lack of trained teachers and Lack of awareness in transacting workbook are the major limitation. Teachers suggested providing training to teachers at the beginning of academic year.

Products of the learning activities

Opinion of the teachers regarding the products of learning activities is presented in Table 2.8.

Table 2.8
Details of the products of the learning activities

Question	Yes	No
a. Evaluation of products	96.41	3.59
b. Encourages learners outstanding products	97.01	2.99
c. Utilising the possibility of reusing products	92.81	7.19
d. Conducts exhibition of learners products	13.17	86.83

Table 2.8 reveals that regarding the products of the learning activities a great majority of teachers (96.41%) reported that they evaluated the products, encouraged the learner's outstanding products (97.01%) and utilized the possibility of re-using the products (92.81%). Only very few (13.17%) of teachers opined that they conducted exhibition of the products.

Majority of teachers (96.41%) reported that they evaluated the products, encouraged the learners for their outstanding products (97.01%) and utilized the possibility of re-using the products (92.81%). Only very few (13.17%) of teachers opined that they conducted exhibition of the products.

Showcasing of classroom product

Other than the enlisted items a few teachers reported that they conduct exhibitions at school level, BRC, CRC, level and competition like CRC, BRC, School assembly and cultural programmes.

III. Learning process

The teachers were asked to mark their responses regarding the various learning processes that take place inside the classrooms. The responses of the Teachers, in this section, for the Quantitative items were recorded as Yes / No, and Always/Sometimes/Not at all. The Qualitative responses were noted and listed the responses were collected and analyzed. The results are given under the appropriate headings.

3.1 Difficulty experienced while planning learning activities in the classrooms

The responses obtained from teachers of II standard regarding the Difficulty experienced while planning learning activities in the classrooms were tabulated and is given in Table 3.1.

Table 3.1
Difficulty experienced while planning learning activities

Statement	Responses in Percentage	
	Yes	No
Difficulty experienced while planning learning activities	52.10	47.90

It is seen from the table that 52.10% of teachers reported that they experienced difficulties while planning learning activities whereas 47.90% mentioned that they did not experience any difficulty.

From this, it can be inferred that half of the teachers of standard II experienced difficulties while planning learning activities.

3.2 Thrust areas where difficulty is experienced while planning learning activities

The teachers, who indicated that they experienced difficulties while planning the learning activities, were asked to indicate thrust areas where difficulty is experienced while planning learning activities and the responses are given in Table 3.2.

Table 3.2

Thrust areas where difficulty is experienced while planning learning activities

Thrust area	Responses in Percentage
a) Learning Outcomes	17.37
b) Integrating arts, sports, health and work experience	7.78
c) Life skills	41.32
d) Utilizing learning resources	22.16
e) Slots for ICT	16.17
f) Community bound activities	36.53
g) Values/attitudes	23.35
h) Learning of the different levels of learners	14.37
i) Continuous evaluation	38.32
j) Areas to develop social commitment	14.37

The thrust areas where the teachers of class II faced difficulties are Life skills (41.32%), Continuous evaluation (38.32%), Community bound activities (36.53%) Values/attitudes (23.35%), Utilizing learning resources (22.16%), Learning Outcomes (17.37%), Slots for ICT (16.17%), Learning of the different levels of learners (14.37%), Areas to develop social commitment (14.37%) and Integrating arts, sports, health and work experience (7.78%).

Therefore it can be inferred that Life skills, Continuous evaluation, Community bound activities, Values/attitudes, and Utilizing learning resources, are thrust areas that posed difficulty to majority of Teachers who indicated that they experienced difficulties while planning the learning activities.

The following are the remedial measures suggested by teachers to overcome difficulties experienced in the various thrust areas:-

- Enhance infrastructure facilities
- Ensure ICT availability
- Required more training in WE and ICT
- Arts and sports teachers to be recruited

3.3 Ensuring the development of process skills in learners through learning process

The teachers are asked to mark their Responses regarding ensuring the development of process skills in learners through learning process. The responses were tabulated and it is given in Table 3.3.

Table 3.3

Ensuring the development of process skills in learners through learning process

Statement	Responses in Percentage		
	Always	Sometimes	Not at all
Ensure the development of process skills in learners through learning process	16.77	78.44	4.79

It is seen from the table majority of teachers (78.44%) of Class II reported that they sometimes ensured the development of Process skills in the learners through learning process, whereas only 16.77% could always ensure it in the class. Only 4.79% of teachers responded that they were not at all able to ensure the development of Process skills in the learners through the learning process.

From this, it can be inferred that majority of teachers of class II (78.44%) sometimes ensured the development of Process skills in the learners through learning process, only 16.77% could always ensure it in the class.

3.4 Planning and implementing learning activities to attain conceptual clarity

The teachers are asked to mark their Responses regarding planning and implementing learning activities to attain conceptual clarity through multi-sensory experiences. The responses obtained from the teachers is given in Table 3.4

Table 3.4

Planning and implementing learning activities to attain conceptual clarity through multi-sensory experiences

Statement	Responses in Percentage	
	Yes	No
Plan and implement learning activities to attain conceptual clarity through multi-sensory experiences	85.63	14.37

It is seen from the table that a great majority of teachers (85.63%) of class II reported that they planned and implemented learning activities to attain conceptual clarity through multi-sensory experiences, whereas 14.37% did not do so.

From this, it can be inferred that Majority of Teachers of class II planned and implemented learning activities to attain conceptual clarity through multi-sensory experiences. However 14.37% of the Teachers did not do so.

3.5 Appropriateness of the curriculum in enabling learners to apply the knowledge acquired through learning process in their daily life

The teachers are asked to mark their responses regarding appropriateness of the curriculum in enabling learners to apply the knowledge acquired through the learning process in their daily life. The responses obtained from the teachers are given in Table 3.5.

Table 3.5

Appropriateness of the curriculum in enabling learners to apply the knowledge acquired through learning process in their daily life

Statement	Responses in Percentage	
	Yes	No
Curriculum is appropriate for enabling learners to apply the knowledge acquired through learning process in their daily life	94.01	5.99

It is evident from the table a great majority of teachers (94.01%) of standard II reported that curriculum is appropriate for enabling learners to apply the knowledge acquired through learning process in their daily life, whereas 5.99% recorded disagreement to the statement.

From this, it can be inferred that the curriculum is considered appropriate for enabling learners to apply the knowledge acquired through learning process in their daily life by majority of teachers of class II.

3.6 Learning strategies appropriate to the content

The teachers are asked to mark their responses regarding making use of the learning strategies appropriate to the content. The responses obtained from the teachers are given in Table 3.6.

Table 3.6
Making use of the learning strategies appropriate to the content

Statement	Responses in Percentage	
	Yes	No
Make use of the learning strategies appropriate to the content	91.02	8.98

The table 3.6 shows that majority of teachers (91.02%) of Class II reported that they made use of the learning strategies appropriate to the content.

From this, it can be inferred that majority of Teachers of Class II made use of learning strategies appropriate to the content.

3.8 Difficulty while making use of appropriate learning strategies

The teachers were asked to express their responses regarding the reasons for experiencing difficulty while making use of appropriate learning strategies. The responses are given in Table 3.8

Table 3.8
Reasons for experiencing difficulty while making use of appropriate learning strategies

Reason	Responses in Percentage
a. Lack of time	70.06
b. Practical difficulty	32.93
c. Lack of facilities/materials	36.53
d. Lack of training	11.98

The reasons that were noted by the teachers for experiencing difficulty while making use of appropriate learning strategies as evident from the table, are Lack of time (70.06%), Lack of facilities/materials (36.53%), Practical difficulty (32.93%) and Lack of Training (11.98%).

Therefore it can be inferred that ‘Lack of time’ and ‘Lack of facilities/materials’ were the major reasons that were mentioned by the teachers of class II who indicated that they faced difficulty while making use of appropriate learning strategies.

Teachers also reported the following reasons for experiencing difficulty in utilizing suitable learning strategies:

- Difficulty in considering backward learners
- Small size of class rooms

3.9 Learning activities to overcome the constraints of slow learners

The teachers are asked to mark their responses regarding planning and implementing learning activities to overcome the constraints of slow learners and the responses are given in Table 3.9.

Table 3.9
Planning and implementing learning activities to overcome the constraints of slow learners

Statement	Responses in Percentage	
	Yes	No
Plan and Implement learning activities to overcome the constraints of slow learners	71.26	28.74

As seen from the table, majority of the teachers of class II (71.26%) planed and implemented learning activities to overcome the constraints of slow learners, whereas 28.74% did not.

Hence it can be inferred that majority of teachers of class II (71.26%) are planned and implemented learning activities to overcome the constraints of slow learners.

3.10 Difficulty while planning and implementing learning activities to overcome the constraints of slow learners

The teachers, who indicated that they experienced difficulties while planning and implementing learning activities to overcome the constraints of slow learners, were asked to indicate their responses regarding the difficulties they experienced. The various difficulties are given in Table 3.10.

Table 3.10
Reasons for experiencing difficulty while planning and implementing learning activities to overcome the constraints of slow learners

Reason for Difficulties	Responses in Percentage
(a) To plan and implement the activities for different levels of learners	21.56
(b) Remedial Teaching	4.79
(c) Lack of specially prepared learning materials	17.96
(d) Lack of time	22.75

The reasons reported by the English teachers of class II for difficulties in planning and implementing learning activities to overcome the constraints of slow learners are Lack of time (22.75%), ‘difficulties in planning and implementing activities for different levels of learners (21.56%), Lack of specially prepared learning materials (17.96%), and Difficulties in remedial teaching (4.79%).

Therefore it can be inferred that ‘Lack of specially prepared learning materials’ and ‘Lack of time’ were the reasons that were mentioned by majority of the of class II who indicated that they faced difficulty while planning and implementing learning activities to overcome the constraints of slow learners.

3.11 Ensuring attainment of learning outcomes in different levels of learners

The teachers are asked to mark their responses regarding ensuring attainment of learning outcomes in different levels of learners. The responses obtained from the teachers are given in Table 3.11.

Table 3.11

Ensuring attainment of learning outcomes in different levels of learners

Statement	Responses in Percentage	
	Yes	No
Ensure attainment of learning outcomes in different levels of learners	38.92	61.08

As evident from the Table majority of the teachers of class II (61.08%) were did not ensure the attainment of learning outcomes in different levels of learners, whereas only 38.92% were able to do so.

Hence it can be inferred that majority of the teachers of class II did not ensure the attainment of learning outcomes in different levels of learners.

Teachers also reported the following difficulties in ensuring learning outcomes satisfactorily in different levels of learners.

- Time is not sufficient for exploring the possibilities necessary adaptations.
- The extra duty of teachers is a major issue.
- There is also lack of suitable learning materials.
- Parents are not providing enough support
- The class management is also very difficult.
- Teachers are lacking experience in planning the activities.
- The presence of deaf and dumb students creates communication problems.
- Another difficulty felt by teachers is the continuous absence of the differently abled.

3.12 Implementation of learning activities to enrich the abilities of gifted learners

The teachers are asked to mark their responses regarding implementation of learning activities to enrich the abilities of gifted learners. The responses obtained from the teachers are given in Table 3.12.

Table 3.12

Implementation of learning activities to enrich the abilities of gifted learners

Statement	Responses (%)	
	Yes	No
Implement learning activities to enrich the abilities of gifted learners	85.03	14.97

Majority of the teachers of class II (85.03%) implemented learning activities to enrich the abilities of gifted learners, whereas 14.97% did not.

3.13 Difficulties in the implementation of learning activities to enrich the abilities of gifted learners

The teachers, who indicated that they experienced difficulties in the implementation of learning activities to enrich the abilities of gifted learners, were asked to indicate their responses regarding the difficulties they had. The responses are given in Table 3.13

Table 3.13

Reasons for Difficulties in the Implementation of learning activities to enrich the abilities of gifted learners

Reason for Difficulties	Responses in Percentage
a) Difficulty in planning challenging learning activities	11.38
b) Lack of suitable learning resources	3.59
c) Lack of time	4.19
d) Lack of training	0.60

The reasons that were attributed by the teachers of class II for not able to implement learning activities to enrich the abilities of gifted learners effectively are ‘Difficulty in planning challenging learning activities (11.38%), Lack of time (4.19%), Lack of suitable learning resources (3.59%) and Lack of training (0.60%).

Therefore it can be inferred that difficulty in planning challenging learning activities and ‘Lack of time’ are the major reasons for the Implementation of learning activities to enrich the abilities of gifted learners.

3.14 Suitable learning strategies to ensure maximum participation of all learners

The teachers were asked to mark their responses regarding applying suitable learning strategies to ensure maximum participation of all learners. The responses obtained from teachers are given in Table 3.14.

Table 3.14

Applying suitable learning strategies to ensure maximum participation of all learners

Statement	Responses in Percentage		
	Always	Sometimes	Not at all
Apply suitable learning strategies to ensure maximum participation of all learners	29.94	67.66	2.40

The table reveals that majority of teachers of class II (67.66%) sometimes applied suitable learning strategies to ensure the participation of all learners whereas 29.94% were always able to it apply it. Only 2.40% were not at all able to apply the learning strategies which ensured the participation of all learners.

Therefore it can be inferred that majority of teachers of class II sometimes ensured the maximum participation of all learners, only 29.94% always ensured full learner participation.

3.15 Transaction of the content in a learner friendly manner

The teachers were asked to mark their responses regarding transaction of the content in a learner friendly manner and the opinions are presented in Table 3.15.

Table 3.15

Transaction of the content in a learner friendly manner

Statement	Responses in Percentage		
	Always	Sometimes	Not at all
Transact the content in a learner friendly manner	55.69	41.92	2.40

More than half of the teachers of class II (55.69%) are always able to transact the content in a learner friendly manner, whereas 41.92% of teachers sometimes transacted the content in a learner friendly way.

IV. Evaluation

The responses based on various aspects of evaluation were collected from teachers and analyzed. The details are given under appropriate heads.

1. Clarity in continuous Evaluation

The responses from teachers based on clarity in continuous evaluation (CE) were collected and analyzed. The details are given in table 4.1

Table 4.1

Responses of teachers regarding clarity in Continuous Evaluation

Aspect	Responses in Percentage	
	Yes	No
Clarity in continuous assessment	86.23	13.77

From the table 4.1 it is found that majority of teachers (86.23%) reported that they got a clear idea about continuous evaluation. At the same time 13.77% of teachers have no clarity regarding the continuous evaluation.

Even though majority of teachers got a clear idea about continuous evaluation, about 13.77% teachers need clarity regarding continuous evaluation.

2. Areas which need clarity for teachers

The specific areas which need clarity regarding the Continuous Evaluation were elicited from the teachers and it is presented in Table 4.2.

Table 4.2

Areas which need clarity regarding the Continuous Evaluation

Area	Responses in Percentage
Assessment of Learning Process	7.78
Portfolio Assessment	4.19
Unit Assessment	1.20
Recording	2.99

Table 2 reveals that very few teachers in standard II reported that they need clarity in assessment of learning process (7.78%), portfolio assessment (4.19%), recording (2.99%) and unit assessment (1.20%).

However majority of teachers got a clear idea about continuous assessment, simultaneously a significant number of teachers need clarity in the area of continuous evaluation viz. assessment of learning process (7.78%), portfolio assessment (4.19%), recording (2.99%) and unit assessment (1.20%).

3. Continuous Evaluation to ensure learning and to provide adequate support to learners

The data based on ability to carry out CE to ensure learning and to provide adequate support to learners were collected from teachers and were subjected to analysis. The details are given in table 4.3.

Table 4.3
Continuous Evaluation to ensure learning and to provide adequate support to learners

Aspect	Responses (%)	
	Yes	No
Ability to ensure learning and to provide support to learners though CE	67.66	32.34

From the table 4.3 it is found that teachers of standard II (67.66%) reported that they are able to ensure learning and to give support to the learners while carrying out continuous evaluation. At the same time 32.34% teachers reported that they couldn't.

From the analysis it is clear that 32.34% of teachers are not able to ensure learning and to provide support to learners though continuous evaluation.

4. Practical difficulties encountered while carrying out Continuous Evaluation

The practical difficulties to carry out continuous evaluation to ensure learning and to provide adequate support to learners were collected and it is given in table 4.4.

Table 4.4

Practical difficulties to ensure learning and providing adequate support to learners

Practical difficulties	Responses in Percentage
Lack of awareness	12.57
Lack of time	22.75
Complexity of learning process	12.57
Overcrowded class rooms	7.19

Analysis of table 4.4 reveals that teachers reported that Lack of time (22.75%), Lack of awareness (12.57%), Complexity of learning process (12.57%) and Overcrowded class rooms (7.19%) are the major practical difficulty to ensure learning and providing support to learners while carrying out CE.

The analysis reveals that Lack of time, Lack of awareness, Complexity of learning process and Overcrowded class rooms are the major practical difficulty to ensure learning and providing support to learners while carrying out CE.

5. Simultaneous taking place of Learning process and Evaluation

The data based on responses of teachers regarding the simultaneous taking place of learning process and evaluation were collected and analyzed. The details are given in Table 4.5.

Table 4.5

Simultaneous taking place of Learning process and Evaluation

Aspects	Responses (%)	
	Yes	No
Learning process and evaluation taking place simultaneously	83.83	16.17

From the table 4.5 it is found that that majority of teachers in standard II (83.83%) reported that learning process and the continuous evaluation process takes place simultaneously while 16.17% of teachers reported that that learning process and the continuous evaluation process is not taking place simultaneously.

It is clear that even though majority of teachers are able to carry out learning process and evaluation simultaneously a significant number of teachers are not able to undertake the task successfully.

6. Practical difficulties encountered to carry out learning process and evaluation simultaneously

The data based on responses of teachers regarding the practical difficulties encountered for simultaneous taking place of learning process and evaluation were collected and analyzed. The details are given in Table 4.6.

Table 4.6

Practical difficulties in learning process and evaluation

Practical difficulties	Responses in Percentage
Lack of proper planning	16.17
Lack of awareness about suitable strategies	13.17
To give more emphasis to learning process than evaluation	1.80

From Table 4.6 it is clear that 16.17% of teachers responded that the difficulty to carry out learning process and evaluation simultaneously is due to lack of proper planning. The other difficulties reported are: lack of awareness about suitable strategies and giving more emphasis to learning process than evaluation.

7. Specificity of indicators related to different areas of evaluation

The data based on responses of teachers regarding specificity of indicators related to different areas of evaluation were collected and analyzed. The details are given in Table 4.7.

Table 4.7

Specificity of indicators related to different areas of evaluation

Aspects	Responses (%)	
	Yes	No
Specificity of indicators related to different areas of evaluation	86.23	13.77

From the table 4.7 it is found that 86.23% teachers in standard II reported that the indicators given to the areas for evaluation are specific while 13.77% teachers reported as not specific. It is significant to note that a significant percentage of teachers (13.77%) reported that the indicators related to different areas of evaluation are not specific.

8. Responses of teachers regarding the Area which needs clarity for indicators

Responses of the teachers regarding the areas which need clarity for indicators were collected from teachers who didn't get a clear idea about it and were subjected to analysis. The details are given in table 4.8.

Table 4.8
Area which needs clarity for indicators

Area	Responses in Percentage
Assessment of Learning Process	6.59
Portfolio Assessment	2.40
Unit Assessment	2.40

From the table 4.8 it is found that a very few teachers in standard II (2.40%) reported that they need clarity in Unit Assessment. A very few of teachers needs clarity of indicators in assessment of learning process (6.59%) and portfolio assessment (2.40%).

9. Problems faced by teachers during the assessment of learning process

The problems faced by teachers during the assessment of learning process were collected and it is presented in Table 4.9.

Table 4.9
Problems faced by teachers during the assessment of learning process

Problems	Responses in Percentage
Overcrowded classroom	24.55
Lack of suitable criteria	15.57
Lack of time	69.46
Lack of awareness of teachers	3.59
Lack of planning	2.99

The table 4.9 reveals that 69.46% of teachers of standard II reported that the main problem faced by them during assessment of learning process is lack of time. Overcrowded classrooms (24.55%), Lack of suitable criteria (15.57%), Lack of awareness to the teachers

(3.59%) and Lack of planning (2.99%) are the other problem faced by teachers during assessment of learning process.

10. Provision for self-evaluation and peer evaluation

The responses of teachers regarding the opportunity for self-evaluation and peer evaluation were collected and are given in Table 4.10.

Table 4.10
Opportunity for Self-evaluation and Peer evaluation

Aspects	Responses (%)	
	Yes	No
Self-Evaluation	97.60	2.40
Peer Evaluation	86.23	13.77

From the table 4.10 it is clear that a great majority of teachers reported that they provide opportunities for self-assessment (97.60%) and (86.23%) for peer evaluation. But it is significant to note that 13.77% of teachers are not at all providing any opportunity for peer evaluation.

11. Preparation of indicators for Evaluation

Method of preparation of indicators for evaluation by the teachers are recorded and it is presented in Table 4.11.

Table 4.11
Responses of teachers regarding Preparation of indicators for Evaluation

Method	Responses in Percentage
Prepared by Teacher	55.09
Prepared by learners themselves	10.18
Derives from classroom discussion	61.08

The table 4.11 reveals that 55.09% of teachers in standard II reported that they prepare indicators for evaluation by classroom discussion, while 55.09% of teachers themselves prepare indicators for evaluation. A few of teachers (10.18%) reported that learners prepare indicators for evaluation.

About 30% of teachers are not preparing indicators for evaluation. It is also significant to note that majority of teachers are not concerned with the preparation of indicators by learners.

12. Opportunity to learners to present their products related to self-assessment and peer assessment

The responses of teachers regarding provision of ample opportunity to learners to present their products related to self-assessment and peer assessment are given in Table 4.12.

Table 4.12

Opportunity to learners to present their products related to self-assessment

Aspects	Responses (%)	
	Yes	No
Opportunity provided to learners to present their products related to self-assessment	94.01	5.99

From the table 4.12 it is found that majority of teachers of standard II (94.01%) reported that they provide ample opportunity to learners to present their products related to self-assessment and peer assessment. Majority of teachers are providing of opportunities to present their product related to self-evaluation and peer evaluation, but 5.99% of teachers are not providing at all.

13. Suitable changes in the classroom process considering the learners' assessment

The responses of teachers regarding suitable changes in the classroom process considering the learners' assessment are given in Table 4.13.

Table 4.13

Changes in the classroom process considering the learners' assessment

Aspect	Responses (%)	
	Yes	No
Suitable changes in the classroom process considering the learners' assessment	86.83	13.17

From the table 4.13 it is found that majority of teachers in of standard II (86.83%) reported that they make suitable changes in the classroom process considering the learners' assessment.

The following are the changes in the classroom process considering the learning assessment for the last academic year.

- Compositions by learners
- More materials for reading are given
- More group activities
- Groups are arranged with different students every day
- Students are given avenues for creative writings- riddles- poetry- stories – proverbs
- Group the students for evaluation
- Sought the help of peer group
- Special consideration is given to the learners in difficult areas
- Exhibition of learner's products
- Different methods for reading are adopted

14. Tools / techniques for unit evaluation

Tools / techniques used by the teachers of standard II for unit evaluation are given in Table 4.14.

Table 4.14
Tools / techniques used by the teachers for unit evaluation

Area	Percentage
a. Quiz	48.50
b. Class test	77.84
c. Others	2.99

The table 4.14 reveals that majority of teachers of standard II (77.84) reported that they use Class test for unit wise evaluation. Whereas 48.50% of teachers are using quiz as a tools / technique for unit evaluation.

Study reveals that majority of teachers of standard II (77.84) are using Class test for unit wise evaluation.

15. Records considered for continuous evaluation

Records considered for continuous evaluation are collected from the teachers and it is given in Table 4.15.

Table 4.15
Records considered for continuous evaluation

Records	Percentage
Note book	94.61
Worksheet	93.41
Writings	91.62
Short notes	89.22
Project/seminar reports	58.68
Answer sheets of unit wise assessment	69.46
Others	10.18

From the table 4.15 it is noted that vast majority of teachers of class II (89-94%) reported that the records considered for continuous evaluation were note book, creative writings short notes and Worksheet. Whereas 69.46% of teachers reported that they considered answer sheets of unit wise assessment and 58.68% considered Project/seminar reports as records for continuous evaluation.

From the analysis it is inferred that teachers of standard II are considering different records such as Notebook, Worksheet, Project/seminar report, answer scripts, short notes and creative writings for continuous evaluation. It is significant to note that 58.68% of teachers are considering project/seminar reports and 69.46% of teachers are considering answer sheets for continuous evaluation.

16. Feedback based on continuous evaluation

Opinion of teachers regarding the feedback providing based on continuous evaluation are collected and is given in Table 4.16.

Table 4.16
Providing feedback to learners and parents based on continuous evaluation

Feedback providing	Responses (%)	
	Yes	No
For learners	95.81	4.19
For parents	80.84	19.16

Table 4.16 reveals that a great majority of teachers of standard II (95.81%) reported that they provide feedback based on continuous evaluation for learners, while 80.84% teachers provide feedback for parents. It is significant to note that 19.16% of teachers are not giving feedback to parents and very few teachers (4.19%) not to learn also.

Even though majority of teachers are giving feedback based on CE a significant number of teachers (19.16%) are not giving feedback on CE for parents and 4.43% of teachers not for learners too.

17. Provision for remedial instruction based on feedback from Continuous Evaluation

The responses of teachers regarding remedial teaching based on continuous evaluation are given in Table 4.17.

Table 4.17

Provision for remedial teaching based on continuous evaluation

Aspect	Responses (%)	
	Yes	No
Provision for remedial instruction based on feedback from Continuous Evaluation	86.83	13.17

Table 4.17 reveals that a great majority of teachers (86.83%) of standard II reported that they are providing remedial instruction based on feedback from Continuous Evaluation, while 13.17% teachers are not providing remedial instruction.

It is significant to note that even though majority of teachers are providing remedial instruction based on feedback from Continuous Evaluation, significant percentage of teachers (13.17%) are not providing remedial instruction based on the feedback obtained from continuous evaluation.

18. Methods adopted for remedial instructions

The data regarding the various strategies adopted for the remedial teaching are recorded and are given in Table 4.18.

Table 4.18
Various strategies adopted for remedial teaching

Strategy	Percentage
a. Changing the process	46.71
b. Giving support	76.05
c. Peer tutoring	43.71
d. follow-up activities	70.06

It is evident from the table 4.18 that teachers of standard II are adopting various strategies for remedial teaching viz. Giving support (76.05%), Follow-up activities (70.06%), changing the process (46.71%) and Peer tutoring (43.71%). Giving support (76.05%), Follow-up activities (70.06%), changing the process (46.71%) and Peer tutoring (43.71%) are the various strategies adopted by the teachers of standard II for remedial teaching.

19. Accurate recording of continuous evaluation

Responses of teachers regarding the **accurate** recording of continuous evaluation were collected and are given in table 4.19

Table 4.19
Accurate recording of continuous evaluation

Aspect	Responses (%)	
	Yes	No
Recording of continuous evaluation	74.85	25.15

From the table 4.19 it is found that 74.85% of teachers of standard II reported that they are accurately recording the details of the continuous evaluation. While 25.15% reported that they are not accurately recording the details of CE.

Even though majority of teachers accurately record the details of continuous evaluation, 25.15% of teachers did not record accurately the details of continuous evaluation.

20. Different evaluation strategies for CWSN learners

Responses of teachers regarding the framing separate strategies of **evaluation** for CWSN learners were collected and it is given in Table 4.20.

Table 4.20

Framing Different evaluation Strategies for CWSN learners

Aspect	Responses (%)	
	Yes	No
Framing Different evaluation Strategies for CWSN learners	57.49	42.51

From the table 4.20 it is found that 57.49% of teachers standard II reported that they are framing separate strategies of evaluation for CWSN learners

From the analysis it is clear that 57.49% of teachers are framing different strategies for CWSN learners. But a significant percentage of teachers (42.51%) are not framing different strategies for CWSN learners.

The following are the Strategies of evaluation for CWSN learners framing by the teachers.

- Worksheets are not there to assess CWSN
- Simplified evaluation, observation of learners responses growth in learning activities understandings
- Alphabet charts, big pictures, picture charts, responses

21. Awareness and adequacy of tool related to Term Evaluation

Opinion of teachers regarding the Awareness, adequacy of tool and variety in questions in the Term Evaluation are collected. The details are given in table 4.21.

Table 4.21

Awareness and adequacy of tool related to Term Evaluation

Statements	Great extent	Some extent	Not at all
Clear awareness about TE	89.82	7.78	2.40
The tools adopted for Term Evaluation are adequate for evaluating learning outcomes.	75.45	22.75	1.80
Include variety questions which give emphasis to thinking skills	73.05	22.16	4.79

Table 4.21 reveals that majority of teachers (89.82%) reported that they have a clear awareness about TE, 75.45% of teachers reported that tools for TE is suitable to great extent for evaluating the learning outcomes and 73.05% opined that TE includes variety of questions which give emphasis to thinking skills to a great extent level.

22. Difficulties related to Term Evaluation

Responses of teachers regarding the difficulties regarding Term Evaluation are recorded and it is given in table 4.22.

Table 4.22
Difficulties related to Term Evaluation

Aspect	Responses (%)	
	Yes	No
Teachers face Difficulties related to TE	22.16	77.84

Table 4.22 reveals that the majority of teachers in standard II (77.84%) not faced any difficulty regarding TE. But 22.16 % of teachers reported that they face difficulties related to regarding TE. Even though majority of teachers are not facing any difficulties related to TE, a significant number of teachers (22.16%) have difficulties related to TE.

23. Difficulties reported by teachers related to TE

The data based on responses of teachers regarding the difficulties related to TE were collected and analysed. The details are given in Table 4.23

Table 4.23
Difficulties experienced by teachers related to Term Evaluation

	Percentage
a) Inadequate evaluation strategies	16.17
b) Difficulty in grading	12.57
c) Difficulty in recording	1.80

From the table 4.23 it is seen that 12.57% of teachers in standard II reported that the difficulties they experienced related to term evaluation is due to difficulty in grading. The other difficulties reported are inadequate evaluation strategies (16.17%) and difficulty in recording (1.80%).

From the analysis it is found that few teachers reported that they experienced difficulties related to term evaluation. The difficulties are inadequate evaluation strategies, difficulty in grading and difficulty in recording.

24. Evaluation related to art, sports and work experience

Responses of teachers regarding the evaluation of art, sports and work experience are collected and it is presented in table 4.24

Table 4.24
Evaluation related to art, sports and work experience

Aspect	Responses (%)	
	Yes	No
Conduct of evaluation related to art, sports and work experience	59.28	40.72

It is clear from the table 4.24 that 59.28% of teachers in second standard were conducted evaluation related to art, sports and work experience properly.

It is significant to note that about half of the teachers are not able to conduct evaluation related to arts, sports and work experience effectively.

25. Evaluation and recordings of Social and Emotional areas

The responses of teachers regarding Evaluation and recordings of Social and Emotional areas are presented in table 25.

Table 4.25
Evaluation and recordings conducted in Social and Emotional areas

Area	Percentage
Empathy	65.27
Intrapersonal skill	79.64
Problem solving capacity	53.29
Critical thinking	36.53
Self-awareness	65.87
Communicative skill	64.07
Coping with emotions	39.52
Decision making	80.24
Creative thinking	65.87
Coping with stress	35.93

The table 25 reveals that majority of teachers of class II reported that they evaluated and recorded in intrapersonal skill (79.65%), decision making (80.24%), self-awareness (65.87%) and empathy (65.27%), Communication skill (64.07%), Problem solving capacity (53.29%). Coping with emotions (39.52%), Critical thinking (36.53%) and Coping with stress (35.93%) are evaluated and recorded by less than 40 percent of the teachers.

It is important to note that a significant number of teachers are not carrying out evaluation and recording of socio-emotional area like empathy, problem solving skill, creative thinking, critical thinking, and coping with stress under socio emotional areas. Majority of teachers are evaluating and recording socio-emotional areas like interpersonal skill, decision making, self-awareness and communication skill, a significant number of teachers are not yet carrying out evaluation and recording in these areas.

V. Support system

The teachers of the second standard were asked to mark their responses regarding the support system available in for the effective transaction of the content and the developmental activities of the institution. The responses were collected and tabulated. The results are given under the subheadings.

Individual/agencies providing support

Individual/agencies providing various types of support for the effective functioning of the system are tabulated and it is presented in Table 5.1.

Table 5.1

Individual/agencies providing support

Sl. No.	Individual/Agencies	Total
1	HM	98.20
2	BRC	95.21
3	DIET	55.09
4	ISM	52.10
5	SCERT	49.10
6	SMC/PTA	84.43
7	MPTA	88.62
8	SSG	76.05
9	LSG	45.51
10	NGO	13.17
11	SSA	82.04
12	Clubs	60.48
13	SPC	11.38
14	Alumni	10.78

From the table 5.1 it is evident that a great majority of teachers of standard II reported that they received support from HMs (98.20%), BRC (95.21%) while majority received support from MPTA (88.62%), SMC/PTA (84.43%), SSA (82.04%), SSG (76.05%), DIET (55.09%), Clubs (60.48%), SCERT (49.10%), and ISM (52.10%). Less than half of the teachers received support from LSG (45.51%) whereas a very low percentage of them received support from Alumni (10.78%), SPC (11.38%) and NGOs (13.17%).

From the analysis it can be inferred that great majority of teachers received support from HMs and BRC. Majority of the teachers received support from, SMC / PTA, MPTA, SSA,SSG, DIET ,clubs, SCERT and ISM. Support from LSG was reported by less than half of the teachers. Only a very low percentage of teachers received support from Alumni SPC and NGOs.

Areas of getting support

The teachers were asked to list the areas in which they got support from the agencies like HM, BRC, DIET, ISM, SCERT, SMC/PTA, MPTA, SSG, LSG, NGO, SSA, Clubs, SPC, and Alumni. Their responses were collected and tabulated in Table 5.2.

Table 5.2
Areas of getting support from the agencies

Sl. No.	Areas	Total
1	Academic	95.21
2	Infrastructure (Class room facilities)	85.63
3	Financial (Grants)	88.62
4	To ensure child rights	76.65
6	To nurture life skills in children	71.86
7	Child friendly environment	85.63
8	Environmental awareness	74.25
9	Waste management	71.26
10	Health and Physical education	69.46
12	Art and Work experience education	65.87
14	Guidance and Counseling	53.29
16	Awareness against Crimes	55.69
18	Values/Attitudes	65.87
19	Awareness against Abuses	58.68
20	Assessment (CE & TE)	78.44

From the table 5.2 it is clear the majority of the teachers opined that they got support in the areas of Academic (95.21%), Financial Grants (88.62%), Infrastructure (Class room facilities) (85.63%), Child friendly environment(85.63%), Assessment (CE & TE) (78.44%), To ensure child rights (76.65%), Environmental awareness (74.25%), To nurture life skills in children (71.86%), Waste management (71.26%), Health and Physical

education (69.46%), Art and Work experience education (65.87%), Values/Attitudes (65.87%), Awareness against Abuses (58.68%), Awareness against Crimes (55.69%), and Guidance and Counseling (53.29%)

Self-improvement using feedback from monitoring

The teachers under study were asked how far the feedback from monitoring was helpful for them for their improvement. The responses obtained are presented in table 5.3.

Table 5.3
Self-improvement using feedback from monitoring

	To a great extent	To some extent	Not at all
Self-improvement using feedback from monitoring	23.35	74.85	1.80

From the table it is clear that majority of the teachers (74.85%) opined that self-improvement using feedback from monitoring is done to some extent while 23.35% opined to a great extent dimension.

Academic improvement based on feed back

The teachers under study were asked whether they try to improve themselves on the basis of the feedback of monitoring the responses are given in table 5.4.

Table 5.4
Academic improvement based on feedback

	Yes	No	No response
Self-academic improvement based on feed back	94.01	3.59	2.40

From the table it is clear that 94.01% of the teachers agreed that self-academic improvement was done on the basis of the feedback where as a meager percentage (3.59%) negated it.

Follow up activity based on monitoring

The teachers were asked whether they plan and implement follow up activities on the basis of monitoring experience. Their responses presented in table 5.5.

Table 5.5

Follow up activity based on monitoring

	Yes	No
Follow up activity based on monitoring	95.81	4.19

From the table 5.5 it is found that majority of the teachers (95.81%) agree that follow up activity was carried out based on the monitoring whereas 4.19% disagree to it.

Clarity in the academic areas through training

The teachers were asked to specify the area which they are getting clarity through training. Their responses are presented in table 5.6.

Table 5.6

In which of the academic areas given below did you get clarity through training?

Areas	Total
Content	90.42
Teaching learning strategies	91.02
Products	78.44
Art and work experience education	58.08
ICT	63.47
Inclusive education	37.13
CE/TE	92.81
Learning outcomes	86.83
Learning resources	68.26
Health and physical education	47.31
Guidance and counseling	32.34
Others	17.37

From the table 5.1 it is clear that a great majority of the teachers got clarity in the areas like CE/TE (92.81%), Teaching learning strategies (91.02%), Content (90.42%), Learning

outcomes (86.83%), Products(78.44%), Learning resources (68.26%), ICT (63.47%), Art and work experience education (58.08%), Health and physical education (47.31%), Inclusive education (37.13%), and Guidance and counseling (32.34%).

From the analysis it can be inferred that not much teachers got clarity in areas of Health and physical education, Inclusive education and Guidance and counseling.

Training helps in transacting the lessons fruitfully

The teachers were asked to specify the helps of training in transacting the lessons and the responses are presented in table 5.7.

Table 5.7

Training helps in transacting the lessons fruitfully

	Great extent	Some extent	Not at all
Training helps in transacting the lessons fruitfully	47.90	44.31	7.78

Table 5.7 reveals the fact that below fifty percentage opined that the training was helpful for them in transacting the lessons fruitfully to a great extent. It is noteworthy that 44.31% opined that the training was helpful only to some extent. Whereas it is noted that 7.78% opined that training was not at all helpful for them in transacting the lessons.

VI. Subject specific analysis

Data were collected from the teachers regarding subjects of II standard for integration and Mathematics and it was analyzed separately.

Integration

The responses of second standard teachers related to contents of Lesson, Suitability, Learning activities, materials, subject based competencies and teacher text are analysed and the results are given in Table 6.1.

Table 6.1
Responses teachers related to various aspects of Textbook

Statement	Fully agree	Partially agree	Do not agree
In the Class Two text book, ideas related to the learners' environment are integrated with language	89.82	8.98	1.20
Preparation of a separate text book for mathematics integrating learning experiences is helpful in improving the mathematical learning abilities of learners	92.22	6.59	1.20
The language, pictures, layout, etc. are attractive and are appropriate to the level Class two learners	86.23	12.57	1.20
Integration of learning activities do not obstruct the attainment of learning outcomes of Malayalam, Environment Study, Mathematics and art-sports-work experience	71.86	25.75	2.40
Language skills and Scientifics skills are developed through Integration	70.66	27.54	1.80
Integration of learning activities do not hinder the development of Mathematical skills	82.04	15.57	2.40
Instructions given in the Teacher text are helpful in the transaction of the textbook	82.04	14.37	3.59

The table reveals, teachers of second stand are reported that ideas related to the children's environment are integrated with language (89.82%), preparation of a separate text book for mathematics integrating learning experiences is helpful in improving the mathematical learning abilities of students (92.22%), the language, pictures, layout etc. are attractive (86.23%), Integration learning activities do not obstruct the attainment of learning outcomes (71.86%), Language skills and Scientifics skills are developed through Integration (70.66%), Integration of learning activities do not hinder the development of

Mathematical skills (82.04%) and Instructions given in the Teacher text are helpful in the transaction of the textbook (82.04).

Learning experiences required for the attainment of language and science skills

Opinion of the teachers regarding the suitability of learning experiences required for the attainment of language and science skills are assessed and it is presented in Table 6.2.

Table 6.2

Suitable of learning experiences required for the attainment of language

Statement	Yes	No	Total
Does the textbook have suitable learning experiences required for the attainment of language and science skills of a class II learner?	97.01	2.99	100.00

Table 6.2 reveals that majority of teachers (97.01%) reported that textbook have suitable learning experiences required for the attainment of language and scientific skills of a class II learner.

Ability to conduct learning activities by integrating arts-sports-health work -experience

Responses of the teachers regarding the ability to conduct learning activities by integrating arts-sports-health work -experience are given in Table 6.3.

Table 6.3

Ability to conduct learning activities by integrating arts-sports-health work -experience

Statement	Yes	No	Total
Are you able to conduct learning activities by integrating arts-sports-health work -experience areas?	77.84	22.16	100.00

From the table 6.3 it is found that majority of teachers (77.84%) reported that they are able to conduct learning activities by integrating arts-sports-health work-experience areas. At the same time 22.16% of teachers are not able to carry out learning activities by integrating arts-sports-health work-experience.

Some teachers are opined that integration of learning activities with arts, sports, health and work experience is possible only in some areas.

Difficulty in transaction through integration

Responses of the teachers regarding the learning materials / learning ideas in Class two that have difficulty in transacting through integration are given in Table 6.4.

Table 6.4
Difficulty in transaction through integration

Responses (Percentage)	Yes	No	Total
Are there still any learning materials / learning ideas in Class two that you have difficulty in transacting through integration?	12.57	87.43	100.00

Table 6.4 reveals that, 87.43% of the teachers opined that there are no learning materials / learning ideas in Class two that have difficulty in transacting through integration. But, 12.57% of the teachers opined that there are learning materials / learning ideas in Class two that have difficulty in transacting through integration.

Merits and demerits in preparing a separate mathematics text book

Teachers are opined that the following are the merits in preparing a separate mathematics text book by integrating learning experiences.

- Transaction of mathematics is done in a time bound manner.
- Parents are able to help their children
- Parents could intervene easily
- The textbook is useful for learners who are good at studies
- Extra time is used to instill mathematics skill among learners
- Excellent activities, pictures, narration, follow- up activities

Teachers are opined that the following are the demerits in preparing a separate mathematics text book by integrating learning experiences.

- Difficulty to ensure the spiraling
- The TB is not useful for the learners who are weak in studies
- Addition- subtraction; if this method is followed, difficulties should have come down
- Necessity to include more activities related to mathematics
- Activities that cultivate place values should be given more

Ideas related to the daily life of a learner included in the textbook

Life related ideas included in the second standard integration textbook are mathematical thought, scientific temper, civil sense, values, attitude communications, food cleanliness, diseases, traffic rules, austerity, love, morality, scientific temper, social sense, discipline, honesty, obedience, water resources, villages, towns and houses.

Life related ideas included in the second standard integration textbook are Nationalism, Respect for suppressed, Respect towards one own profession, Fraternity, Ideas to improve life skill and values, Moral stories, Social relations, Stories that convey love morality, discipline and obedience and Simple stories from the life of great people

Suitable activities in the textbook for the acquisition of language skills

Responses of the teachers regarding the suitable activities in the textbook for the acquisition of language skills by a second standard are given in Table 6.5.

Table 6.5

Suitable activities in the textbook for the acquisition of language skills

Learning strategies	Yes	No
Story	62.87	37.13
Poems	58.08	41.92
Riddles	64.07	35.93
Picture reading	64.67	35.33
Simple conversation	61.68	38.32
Simple description	62.28	37.72
Notes	62.87	37.13

More than 60% of teacher reported that story, riddles, picture reading, simple conversation, simple description and notes are the suitable activities in the textbook for the acquisition of language skills. But about 58% of teachers reported the activities related to poems.

Suggestions given by teachers for the acquisition of language skills are:

- Opportunities for story completion and poem completion should be given more in TB
- Environmental studies that gives more importance to language too should be included
- Add some more interesting poems
- Letter of invitation and diary should be detailed more

- Poems which the children can recite and enjoy should be included
- More models
- More activities should be given for diary entry. Poems of animals should be included

Performance based activities

Performance based activities included in the Textbook/TT to enable acquisition of language skills are presented in Table 6.6.

Table 6.6
Performance based activities included in the Textbook/TT to enable acquisition of language skills

	Yes	No
Role play	94.01	5.99
Miming	78.44	21.56
Story telling	92.22	7.78
Recitation	94.61	5.39
Choreography	83.83	16.17

It is founded that majority of teachers used a variety of performance based activities included in the textbook. They are roll play (94%), miming (78.44%), storytelling (92.22%), recitation (94.61%) and choreography (83.83%).

Difficulty while transacting discourses

The teachers were asked to record their difficulty while transacting discourses and the responses is given in Table 6.7.

Table 6.7
Difficulty while transacting discourses

Statement	Yes	No	Total
Difficulty while transacting discourses	48.50	51.50	100.00

Table 6.7 shows that 48.50% of teachers opined that they are facing difficulty while transacting discourses. While 51.50% of teachers opined that they are not facing difficulty while transacting discourses.

The stages of difficulties facing while transacting discourses are presented in Table 6.7.

Table 6.7

Stages of difficulties facing while transacting discourses

Stages	Yes	No
Individual work	35.33	64.67
Group work	15.57	84.43
Presentation	18.56	81.44
Model presentation	13.17	86.83
Editing	25.15	74.85
Evaluation	18.56	81.44

Table 6.7 reveals that, 35.33% of the teachers are opined that they facing difficulties in the area of individual work while transacting discourses. The other stages of difficulties facing while transacting discourses are Group work (15.57%), Presentation (18.56%), Model presentation (13.17%), Editing (25.15%) and Evaluation (18.56%).

Adequacy of Textbook and Teacher text for various aspects of environment study

Adequacy of Textbook and Teacher text for various aspects of environment study are presented in table 6.8.

Table 6.8

Adequacy of Textbook and Teacher text for various aspects of environment study

Aspects	Adequate	Not adequate
Observation	91.62	8.38
Comparison	91.62	8.38
Categorization	91.62	8.38
Analysis	89.22	10.78
Inference	87.43	12.57
Simple experimentation	91.02	8.98

Table 6.8 reveals that, majority of the teachers are opined that various facets of teaching learning process like Observation (91.62%), Comparison (91.62%), Categorization (91.62%), Analysis (89.22%), Inference (87.43%) and Simple experimentation (91.02%) are adequate.

The following are the difficulties, opinions of teachers faced while transacting through various facets of teaching learning process like observation, comparison, categorization, analysis, inference and simple experiments

- Individual difficulties
- All the learners do not come forward to make their presentations
- Reluctance of learners to follow steps of editing
- Slow learners face difficulty while doing discourses
- Concepts, letters, symbols and punctuation marks are not instilled well
- All the learners do not actively participate in individual work.
- Lack of clarity
- Write stories and narrate
- Add more simple and attractive experiments.
- Inference and analysis could be done only by gifted learners
- Attractive activities formed from experiences should be consolidated and shared in training programs

Mathematics

The responses of teachers based on Contents of the Lesson, Suitability, Learning activities, materials, subject based competencies and teacher text of class II Mathematics were collected and analyzed. The details are given in Table 6.9.

Table 6.9
Responses of teachers based on text book and teacher text in Mathematics

Statements	Great extent	Some extent	Not at All
Able to transact the contents of Mathematics effectively to the students	86.23	10.18	3.59
Activities are included by confirming that adequate pre-requisites required for conceptualization are available with the students	89.82	6.59	3.59
Learners are able to apply the ideas generated by them in new situations	80.24	16.17	3.59
Teachers require clarity in certain areas of Mathematics	55.69	22.75	21.56
Explanations in the textbook can be understood by the students	77.25	19.16	3.59
Teacher text is helpful in planning classroom transaction	90.42	4.79	4.79
Teacher text is helpful in enhancing conceptual knowledge	91.02	4.19	4.79
Activities that can be done by the students themselves are given in the text book	85.63	10.18	4.19
Able to organize classroom activities so that children can effectively generate mathematical ideas themselves	73.65	15.57	10.78
Learners can analyse and solve problem by themselves	50.30	42.51	7.19
The learner is able to identify the mathematical idea/ task that can be used for problem solving	58.68	36.53	4.79
Learners get opportunities for hypothesising and generalization in the class	76.65	17.96	5.39
Learners are able to think rationally and find the cause-effect relation	60.48	35.93	3.59
Learners are able to gather information and analyse them	72.46	22.75	4.79
Learning activities can be completed in a time-bound manner	65.27	31.14	3.59

The table 6.9 reveals that majority (91.02%) of teachers reported that Teacher text is helpful to a great extent in enhancing conceptual knowledge of the content and 90.42% reported that Teacher text is helpful to a great extent in planning classroom activities. It is followed by activities are included by confirming that adequate pre-requisites required for conceptualization are available with the students (89.82), students get opportunities for

hypothesizing and generalization in the class (76.65) and able to make the students apply the ideas generated by them in new situations (80.24). It is also found that 55.69% of teachers reported that there are some more areas in the Mathematics content that requires more clarity for teachers, Activities can be done by the students themselves are given to a great extent level (50.30), Explanations in the textbook can be understood by the students themselves (77.25). It is significant to note that, learning activities given can be completed in a time-bound manner to some extent level by 65.27% of teachers while 3.59% reported that learning activities given in the text cannot be completed in a time-bound manner. It is very important to note that only half of teachers (50.30%) reported that Learners can analyze and solve problem by themselves to great extent level using the Mathematics text book.

The difficulties faced by the teachers while transacting mathematics to the second standard learners are difficulty in transacting abstract mathematical ideas and too much work sheet makes the learning process more difficult.

Class room observation

This section deals with the analysis of the data collected through class observation using rubrics. 10 classes (standard II) each for 3 subjects – English, EVS and Mathematics were observed. The details are given under appropriate heads. Indicator used for the class observation are Teaching Manual, Preparation, Interest and Motivation, Learning Activities, Learning Environment, Classroom Intervention, Reflective Thought, Consolidation, Evaluation Process and Overview of the Class.

7.1 Classroom Observation - English

Analysis of the English classroom observation of standard II and its ratings of various dimensions of classroom presentation are given in Table 7.1.

Table 7.1**Ratings of various dimensions of English classroom activities**

Sl. No	Dimensions	Very Good	Good	Needs Improvement	Does Not Meet Standards	Remarks	
1	Teaching Manual	2	5				
2	Preparation	4	2	1			
3	Interest and Motivation	1	5	1			
4	Learning Activities	Nature	3	4			
		Continuity	3	1	2	0	1
		Use of Learning Materials	1	5	1		
		Knowledge Construction through Learning Activities	5	2			
		Development of Attitude and Values	2	4	1		
		Involvement of Learners	4	3			
5	Learning Environment	1	4	1			
6	Classroom Intervention	3	2	1	0	1	
7	Reflective Thought	2	4	1			
8	Consolidation	3	3	1			
9	Evaluation Process	Process	3	3	1		
		Self -Assessment					
		Peer Assessment					
		Portfolio					
10	Overview of the Class	2	4	1			
	Total						

1. Teaching Manual (TM)

Observation of classes of 10 teachers (Table 7.1) indicated that four teachers have prepared TM using additional resources and creative activities other than Teacher Text, whereas five teaches prepared the TM using essential resources and activities. It is also observed that only one TM observed needs improvement.

2. Pre-planning

It is observed that only five teachers ensured the necessary pre-requisites using variety of creative activities, while two teachers provided a variety of learning activities to get adequate pre-requisites to all learners. At the same time two teachers provided activities necessary for basic pre-requisites to very few learners. But only one teacher not at all provided any activities to ensure necessary pre-requisite.

3. Interest and motivation

Table - shows that only three teachers provided life-oriented and thought provoking activities like description, stories and leaning materials for developing interest and motivation among the learners. At the same time four teachers made the class interesting using descriptions, stories and learning materials. Two of them motivated the learners by only describing the content and asking questions. It is observed that no effort was taken by one of the teachers to make the class neither interesting nor motivating.

4. Learning Activities

Observation of classes of 10 teachers indicated that, in two classes learning activities suggested in TB and TT used by teachers used were highly effective for developing reflective thinking among learners, where as in five classes variety of learning activities provided were effective. In three other classes it is found that learning activities were carried out mechanically.

Five of the teachers transacted the content in a sequential order. Spontaneous progress in learning and timely recording in the TM were there in another three classes observed. But in two classes continuity was losing in certain places.

Among the 10 teachers two teachers were using innovative learning aids, prepared by local resources, for attaining conceptual clarity and six teachers used easily accessible learning aids recommended in the curriculum and one teacher used minimum number of learning aids already available in the school and it is pathetic to observe that one of the teachers were not even using already available learning aids in the school.

Regarding the knowledge construction through learning activities it is found that two teachers supported the learners to attain higher level of knowledge construction through variety of learning strategies including reflective questioning and debating, four teachers intervenes actively by discussion and clearing doubts where as two teachers only tries to

clarify the doubts through explanations and two teachers was providing opportunity for recalling facts through repeated drill and practice.

It is seen that two teachers are providing slots for learning activities to develop attitudes, values and social responsibilities stipulated in the content for intellectual and emotional development, three teachers provided learning activities for intellectual and emotional development and through advice and suggestions were the measures taken by two teachers for developing attitudes and values. It is serious to note that three teachers didn't provide situations for the development of attitudes and values.

It is again observed that four teachers helped learners to identify their roles and ensured their involvement in group and individual activities, other four teachers helped learners to identify their roles in learning situations correctly, but the involvement of all learners were not ensured and two teachers didn't cared for the identification of their roles and didn't ensure the involvement of all learners equally in learning process.

5. Learning Environment

From the classes observed it is noted that two teachers created infrastructure/ICT facilities and independent social and emotional environment suitable for learning activities for all types of learners, while five teachers provided learning activities based on available infrastructure/ICT facilities and creates essential situation necessary for independent social and emotional environment. It is serious to consider that two teachers are not even using available infrastructure/ICT facilities and only one class observed were teacher centered.

6. Class room intervention

As per the analysis it is observed that four teachers intervened with all types of learners as mentors rather than teachers whereas four teachers made only essential interventions as teachers to attain learning out comes and two of them intervened only as much required to transact the content.

7. Reflective thinking

It is observed that out of the 10 classes observed four teachers provide opportunity for reflective thinking in the concerned class itself and provided Remedial measures and other two teachers provided opportunity for reflective thinking. It is also noted that activities provided by four teachers were not adequate for reflective thinking.

8. Consolidation

It is found that in the only one class observed teacher consolidated individual and group activities so as to ensure the learning during and at the end of the class, whereas four teachers consolidated group activities during and at the end of the class, where as in other five classes observed teachers consolidated only at the end of the class.

9. Evaluation

From class room observation it is found that four teachers used variety of strategies for different types of evaluation, while three teachers were using variety of strategies for evaluating learning outcomes based on the content. It is also seen that only three teachers depended on certain evaluation strategies suggested in the text book. Evaluation as envisaged by curriculum was not followed by three of the teachers.

10. Overview

From the analysis it can be tentatively concluded that among the 10 classes observed the performance of teachers is up to the mark with regard to the components like teaching manual preparation, learning environment, classroom intervention and evaluation process. The above mentioned findings high light the need for empowering EVS teachers with necessary competencies and skills for making the learning process oriented and learner friendly.

6.2 Classroom Observation – Integration

Analysis of the Environmental Studies classroom observation of standard II and its ratings of various dimensions of classroom presentation are given in Table 7.2.

Table 7.2

Ratings of various dimensions of Integration classroom activities

Sl. No	Dimensions	Very Good	Good	Needs Improvement	Does Not Meet Standards	Remarks	
1	Teaching Manual	2	3	1			
2	Preparation	1	4	1			
3	Interest and Motivation	1	3	2			
4	Learning Activities	Nature	1	4	1		
		Continuity	0	5	1		
		Use of Learning Materials	1	2	3		
		Knowledge Construction through Learning Activities	0	5	1		
		Development of Attitude and Values	2	0	4		
		Involvement of Learners	2	3	1		
5	Learning Environment	1	2	3			
6	Classroom Intervention	1	3	1	1		
7	Reflective Thought	0	3	3			
8	Consolidation	1	2	3			
9	Evaluation Process	Process	1	1	3	1	
		Self -Assessment					
		Peer Assessment					
		Portfolio					
10	Overview of the Class	1	1	4			
	Total						

1. Teaching Manual (TM)

Observation of classes of 10 teachers (Table 7.2) indicated that only three teachers have prepared TM using additional resources and activities other than Teacher Text, whereas five teachers prepared the TM using essential resources and activities. It is also observed that two of the TMS observed needs improvement.

2. Pre-planning

It is observed that only four teachers ensured the necessary pre-requisites using variety of creative activities, while three teachers provided a variety of learning activities to get adequate pre-requisites to all learners. At the same time three teachers provided activities necessary for basic pre-requisite knowledge to very few learners.

3. Interest and motivation

Table - shows that only one teacher provided life-oriented and thought provoking activities like description, stories and leaning materials for developing interest and motivation among the learners. At the same time seven teachers made the class interesting using descriptions, stories and learning materials. At the same time three of them motivated the learners by only describing the content and asking questions. It is observed that no effort was taken by one of the teachers to make the class neither interesting nor motivating.

4. Learning Activities

Observation of classes of 10 teachers indicated that, in three classes learning activities suggested in TB and TT used by teachers used were highly effective for developing reflective thinking among learners, where as in five classes variety of learning activities provided were effective. In two other classes it is found that learning activities were carried out mechanically.

Four of the teachers transacted the content in a sequential order. Spontaneous progress in learning and timely recording in the TM were there in another five classes observed. But in three classes continuity was losing in certain places.

Among the 10 teachers two teachers were using innovative learning aids, prepared by local resources, for attaining conceptual clarity and four teachers used easily accessible learning aids recommended in the curriculum and three teachers used minimum number of

learning aids already available in the school and it is pathetic to observe that only one teacher was not even using already available learning aids in the school.

Regarding the knowledge construction through learning activities it is found that four teachers supported the learners to attain higher level of knowledge construction through variety of learning strategies including reflective questioning and debating, three teachers intervenes actively by discussion and clearing doubts where as two teachers only tries to clarify the doubts through explanations and one of the teachers was providing opportunity for recalling facts through repeated drill and practice.

It is seen that only one teacher was providing slots for learning activities to develop attitudes, values and social responsibilities stipulated in the content for intellectual and emotional development, three teachers provided learning activities for intellectual and emotional development and through advice and suggestions were the measures taken by five teachers for developing attitudes and values. It is serious to note that one teacher didn't provide situations for the development of attitudes and values.

It is again observed that five teachers helped learners to identify their roles and ensured their involvement in group and individual activities, other four teachers helped learners to identify their roles in learning situations correctly, but the involvement of all learners were not ensured and only one teacher didn't cared for the identification of their roles and didn't ensure the involvement of all learners equally in learning process.

5. Learning Environment

From the classes observed it is noted that three teachers created infrastructure/ICT facilities and independent social and emotional environment suitable for learning activities for all types of learners, while two teachers provide learning activities based on available infrastructure/ICT facilities and created essential situation necessary for independent social and emotional environment. It is serious to consider that one teacher was not even using available infrastructure/ICT facilities.

6. Class room intervention

As per the analysis it is observed that four teachers intervened with all types of learners as mentors rather than teachers whereas four teachers made only essential interventions as teachers to attain learning out comes and two of them intervene only as much required to transact the content and no proper teacher interventions were seen in another two classes.

7. Reflective thinking

It is observed that out of the 10 classes observed three teachers provide opportunity for reflective thinking in the concerned class itself and provided Remedial measures and only one teacher provides opportunity for reflective thinking. It is also noted that seven teachers mainly focused on timely evaluation and recording of performance of students.

8. Consolidation

It is found that in the three classes observed teachers consolidated individual and group activities so as to ensure the learning during and at the end of the class, whereas the other five consolidated group activities during and at the end of the class, where as in other two classes observed teachers consolidated only at the end of the class, but no consolidation was there in other two classes observed.

9. Evaluation

From class room observation it is found that two teachers used variety of strategies for different types of evaluation, while four teachers were using variety of strategies for evaluating learning outcomes based on the content. It is also seen that four of the teachers depended on certain evaluation strategies suggested in the text book.

10. Overview

From the analysis it can be tentatively concluded that among the 10 classes observed the performance of teachers is up to the mark with regard to the components like teaching manual preparation, learning environment, classroom intervention and evaluation process. The above mentioned findings high light the need for empowering EVS teachers with necessary competencies and skills for making the learning process oriented and learner friendly.

6.3 Classroom Observation – Mathematics

Analysis of the Mathematics classroom observation of standard II and its ratings of various dimensions of classroom presentation are given in Table 7.3.

Table 7.3

Ratings of various dimensions of Mathematics classroom activities

Sl. No	Dimensions	Very Good	Good	Needs Improvement	Does Not Meet Standards	Remarks
1	Teaching Manual	2	7			
2	Preparation	1	8			
3	Interest and Motivation	2	5	2		
4	Learning Activities	Nature	2	7		
		Continuity	3	6		
		Use of Learning Materials	3	4	2	
		Knowledge Construction through Learning Activities	0	8	1	
		Development of Attitude and Values	1	7	1	
		Involvement of Learners	4	4	1	
5	Learning Environment	2	5	1	1	
6	Classroom Intervention	4	4	0	0	1
7	Reflective Thought	1	5	3		
8	Consolidation	2	6	0	0	1
9	Evaluation Process	Process	2	5	2	
		Self -Assessment				
		Peer Assessment				
		Portfolio				
10	Overview of the Class	1	8			
	Total					

1. Teaching Manual (TM)

Regarding the observation of classes of 10 teachers (Table 7.3), four teachers prepared TM using additional resources and creative activities other than Teacher Text, whereas four teachers prepared the TM using essential resources and activities and two of the teaching manuals need improvement since resources and activities to be used were not at all included in it.

2. Pre-planning

It is observed that only two teachers ensured the necessary pre-requisites using variety of creative activities, while six teachers provided a variety of learning activities to get adequate pre-requisites to all learners. At the same time two teachers provided activities for acquiring necessary basic pre-requisite knowledge to very few learners.

3. Interest and motivation

Table - shows that three teachers provided life-oriented and thought provoking activities like description, stories and leaning materials for developing interest and motivation among the learners. Five teachers made the class interesting using descriptions, stories and learning materials. At the same time one of them motivated the learners by only describing the content and asking questions. It is serious to note that the activities provided by one of the teachers were dull and boring.

4. Learning Activities

Observation of classes of 10 teachers indicated that, in three classes learning activities suggested in TB and TT used by teachers used were highly effective for developing reflective thinking among learners. At the same time in six classes variety of learning activities provided were effective and that provided by one of the teachers were dull and not suitable for attaining learning outcomes.

Four teachers transacted the content in a sequential order. Spontaneous progress in learning and timely recording in the TM were there in five classes observed. It is significant to consider that in only one class continuity was losing in certain places.

Among the 10 teachers three teachers were using innovative learning aids, prepared by local resources ,for attaining conceptual clarity and four teachers used easily accessible

learning aids recommended in the curriculum and four teachers were not even using available learning aids.

Regarding the knowledge construction through learning activities it is found that two teachers supported the learners to attain higher level of knowledge construction through variety of learning strategies including reflective questioning and debating, two teachers intervened actively by discussion and clearing doubts where as two teachers only tried to clarify the doubts through explanations.

It is seen that two teachers are providing slots for learning activities to develop attitudes, values and social responsibilities stipulated in the content for intellectual and emotional development, five teachers provided learning activities for intellectual and emotional development and advice and suggestions were the measures taken by three of the teachers for developing attitudes and values.

It is again observed that regarding the intervention, four teachers helped learners to identify their roles and ensured their involvement in group and individual activities, five teachers helped learners to identify their roles in learning situations correctly, but the involvement of all learners were not ensured and one teacher didn't care for the identification of their roles and didn't ensure the involvement of all learners equally in learning process.

5. Learning Environment

From the classes observed it is noted that one teacher creates infrastructure/ICT facilities and independent social and emotional environment suitable for learning activities for all types of learners, while three teachers provided learning activities based on available infrastructure/ICT facilities and creates essential situation necessary for independent social and emotional environment. It is serious to consider that three teachers are not even using available infrastructure/ICT facilities and two classes was teacher centered.

6. Class room intervention

As per the analysis it is observed that three teachers intervened with all types of learners as mentors rather than teachers whereas four teachers made only essential interventions as teachers to attain learning out comes. Three of the teachers intervene only as much required to transact the content.

7. Reflective thinking

It is observed that out of the 10 classes observed three teachers provided variety of opportunities for reflective thinking in the concerned class itself and provided Remedial measures and other five teachers provided opportunity for reflective thinking. It is also noted that activities/situations provided by two teachers were not adequate for providing reflective thinking.

8. Consolidation

It is found that in the four classes observed teachers consolidated individual and group activities so as to ensure the learning during and at the end of the class, whereas the three classes consolidated group activities during and at the end of the class. But in three classes observed, teachers consolidated only at the end of the class.

9. Evaluation

From class room observation it is found that two teachers used variety of strategies for different types of evaluation, while three teachers were seen using variety of strategies for evaluating learning outcomes based on the content. It is also seen that three of the teachers depend on certain evaluation strategies suggested in the text book and in two class evaluation envisaged by curriculum was not taking place.

10. Overview

From the analysis it can be tentatively concluded that among the 10 classes observed the performance of teachers is almost average with regard to the components like Teaching Manual preparation, learning environment, classroom intervention and evaluation process. The above mentioned findings high light the need for empowering teachers in Mathematics with necessary competencies and skills for making the learning process oriented learner friendly.

Answer sheet analysis: Error Analysis

Answer sheets of the second standard students of all subjects were collected from selected schools. It was reevaluated by considering the learning outcomes stated in the text book and activities given in the worksheet. Analysis was done for all the subjects Malayalam, Mathematics and Environment Science separately.

Answer sheet analysis – English

Activities given in the question paper to evaluate the achievement of stated outcome were Complete the conversation, Completion of story, Prepare description, Recount riddles, Prepare invitation letter and Poem completion. Findings derived after evaluating all the Malayalam answer sheets of second standard students separately for each activity are given.

Complete the conversation

Majority of the students are supposed to acquire the skills to prepare a conversation using suitable letters and signs with clarity of ideas appropriate to the situation.

Completion of story

Children show a lack of comprehension in the usage of suitable linguistic expression, sequence of ideas etc. There is a need to solve the problems like pervasive spelling mistakes, shortcomings in using signs etc. Children lag behind in completion of the story maintaining the continuity of the situation.

Prepare description

Children experience a lack of comprehension in completing the activity using letters and signs with clarity of ideas and conforming to the sentence structure.

Recount riddles

Maintain the learners an average standard in riddles and language games. There is need to provide children with more activities so as to present the ideas in a concise form.

Prepare invitation letter

There is a lack of clarity about simple language forms for expression of ideas including content, structure, linguistic usages

Poem completion

Children face a practical difficulty in engaging in independent creations using appropriate language/expression without spelling mistakes. The reasons for this include lack of appropriate usages, spelling mistakes, lack of understanding in using signs and lack of practice.

Answer sheet analysis – Mathematics

Activities given in the mathematics question paper to evaluate the achievement of stated outcome were How much (addition), Finish the house (understanding number pattern and geometrical figures), Find the winner (number concept), Price (problem solving), Balance (subtraction), and Complete the pattern. Findings derived after evaluating all the Mathematics answer sheets of second standard students separately for each activity are given.

How much (addition)

Taking this activity alone into consideration, the learner could solve the problem based on the idea of 'addition'.

Finishing the house and colouring (understanding number pattern and geometrical figures)

Generally the learners faced difficulty to identify and classify the geometrical figures.

Find the winner (number concept)

When evaluation is done regarding number awareness, majority of students have got an understanding about the idea. But, the children face difficulty in analyzing problems and solving them.

Price (problem solving)

Even though the skills for analyzing the problem, formulation of inference, etc. have not been achieved completely, majority of children could solve the problem given in the activity.

Balance (subtraction)

Learners were able to solve the problem focusing on the idea of 'subtraction' with respect to the activity given. But the idea of subtraction needs to be enforced in some learners.

Complete the pattern

Around 30% of students have got a clear idea about the process of completing the pattern after identifying the number relation.

Remarks

The learners:

- Lack skills for analysis, classification etc.
- Have not got the idea to analyze number relations

- Understanding about number awareness, problem analysis and problem solving, formulation of inference is not up to the level.
- Inference of number relation is not up to the level.

Answer sheet analysis – Environment science

Activities given in the environment science question paper to evaluate the achievement of stated outcome were Features of a house, Habits of hygiene and Types of workers. Findings derived after evaluating all the environment science answer sheets of second standard students separately for each activity are given.

- **Features of a house**

- The skills to be acquired by the children in relation to the skills for analysis, inference, data collection, and classification are not fully achieved. There is a dire need for strengthening the intervention in classroom activities of outdoor learning, observation etc. for acquiring the above mentioned skills.

- **Habits of hygiene**

- Though the students are aware of personal hygiene, environmental cleanliness etc., they reflect lack of firsthand experience (direct experience) in the skills of observation and attitude.

- **Types of workers**

- The skill of observation is used at an average level, nevertheless the classroom activity should be planned in the right manners so as to acquire the skills of classification, inference, tabulation, analyzing etc. that should be achieved as a result of observation.

Remarks

- The prospects of observation and outdoor learning etc. have not reached the student
- The student has not achieved the expected perceptions/skills
- Lack of understanding the skills of observation, tabulation, formulation of inferences etc.
- Has not achieved the capability/skill to analyze and formulate inference
- Maintains an average standard in the skills for observation, outdoor leaning and formulation of inference
- Has not achieved the skills for classification, data collection etc.
- No idea about the habits of hygiene or cleanliness
- Has observation
- Attitude is incomplete

Text book analysis

Analysis of the textbook and teacher text of the second standard was done to find out the suitability and relevance of the content in the constructivist approach. Analysis of text books of English, Integration and Mathematics were done separately by considering the following parameters (indicators).

1. Conformation with the constructivist paradigm
2. Suitability of the content in attaining learning outcomes
3. Suitability of the content for activity based learning
4. Diversity of learning activities
5. Child-friendly languages
6. Suitability and clarity of pictures, graphs and maps
7. Areas which need further explanation
8. Areas in which the explanations are to be simplified
9. Slots for continuous evaluation
10. Instances of disparity
11. Prospects of democratic values
12. Student friendly lay out
13. Suitability of the teacher text for transaction of the lessons

The details are given below:

Textbook Analysis - English

Analysis of the II Standard English textbook was made and the details are given under appropriate heads.

1. Conformation with the constructivist paradigm

Some of the lessons do not go in confirmation with constructivism. Language elements are included but there are no activities to develop or practice them.

The learning experiences given to the children are not always sufficient to lead them through constructivist paradigm. Instead of helping the children to construct their own ideas, in many lessons, direct ideas are given (Unit-1, 3, 5 and 6).

2. Suitability of the content in attaining learning outcomes

The reader contains vast content. It is very difficult to transact in proper way. The textual language is not up to the level of standard 2 learners.

The reader is designed in such a way that various skill of language are integrated and scope for constructing different discourses are not ensured. For standard 2 students the content is be reduced.

3. Suitability of the content for activity based learning

Ample opportunities are provided in the reader, even though it restricts most of the teacher from providing such activities in the classroom.

Much importance is not given to performance based activities. So performance based activities like choreography, enactment of skit, role-play etc. are given least importance.

4. Diversity of learning activities

The reader has failed to provide variety of activities.

In the Unit-5, page 119 mentioning of Reading corner is seen. Such activities for all language skills are needed in each of the unit. And in each unit activities are not arranged from simple to complex.

5 Learner-friendly languages

Languages used in all the units are learner friendly to a great extent.

6. Suitability and clarity of pictures, graphs and maps

Most of the pictures are not attractive and lack clarity.

7. Areas which need further explanation

All the activities given at the end of the text book need more explanation.

8. Areas in which the explanations are to be simplified

Majority of the stories given are lengthy. It is better to give short and simple stories. Need explanations regarding the new words.

9. Slots for continuous evaluation

Learning activities related to each unit should be planned in such a way that it produces the desired learning out-comes.

To ensure learning outcomes, we should adopt an 'Outcome Focused Assessment Approach'. Adequate slots for the evaluation of Critical thinking, rational thinking, reflection of learning, inter related knowledge etc. are not included.

10. Instances of disparity

There is no possibility of any kind of discrimination while considering the lessons and activities.

11. Prospects of democratic values

Participation of the child provision of his rights, Protection etc are to be possible in the classrooms.

There are many opportunities for the development of democratic values in all the units. The only thing is to ensure these aspects by the teachers.

12. Student friendly lay out

The layout of second standard reader is not attractive due to small size and congested words.

13. Suitability of the teacher text for transaction of the lessons

The teacher text is very helpful for the transaction of the text.

Slots for ICT integration and Language activities are not given,

Less slots for conversation in English language is given in the TB.

Textbook Analysis - Environmental Studies

Analysis of the II Standard **Environmental Studies** textbook was made and the details are given under appropriate heads.

1. Conformation with the constructivist paradigm

While analyzing the lessons of environmental studies in second standard, it can be seen that the text book contains activities based on an attitude for knowledge construction. But in some of the lessons there are possibilities for the construction of knowledge through the activities of Observation, Comparison, Classification, Analysis and Inference throughout the text book.

Unit 1: Public spaces- Tabulation- Activity to understand various occupations/jobs.

Unit 2: Picture observation (comparison). Textbook Page No.22, 23

Unit 3: Observation.

Unit 4: Simple Experiment, Classification, Tabulation.

Unit 5, 6, 7: Classification, Inference.

2. Suitability of the content in attaining learning outcomes

The content of almost all the units are suitable and sufficient to achieve the learning outcomes. As the contents of environmental studies are given in integration in the text book, the learning activities for acquiring learning outcomes are less.

Eg. Unit 1- The suggestions for conducting a survey as a part of identifying and tabulating various occupations may be given in the text book itself.

3. Suitability of the content for activity based learning

The content of almost all the units are suitable for activity based learning. The possibility of its success is only when we consider the text book and Teacher text comprehensively. Activities related to arts, sports, and work experiences are also included.

In the activity 'Find out the Public Spaces in Your Locality', mere picture observation will not provide enough understanding. Along with this, the activity in T.T (Field Trip) should also be planned.

Employment Survey (according to suggestions in T.T) The situations where ICT possibilities can be used can also be included in the text book. (**Unit 1-** Different types of

Houses, **Unit 3,6-** Hygiene, **Unit 4-** The parts of plants used for planting Aquatic plants, **Unit 5-** Modes of locomotion of organisms, **Unit 8-** Vehicles)

4. Diversity of learning activities

Diversity of learning activities is ensured in almost all units

Different types of learning activities like Observation, Picture Reading, Field Trip, etc. are dealt with in different units.

Though there was abundant possibilities for ICT enabled learning activities, there is only a little detail about this.

5 Learner friendly languages

All the units follow a child friendly approach with respect to the use of language

6. Suitability and clarity of pictures, graphs and maps

The pictures are not fully appropriate to the lessons. In some of the units, the pictures, graphs etc are not sufficient or clear.

Unit 1-There should be more clarity for the pictures of public spaces given in the lessons (boards cannot be used)

Unit 4-When evaluated on the basis of the subject 'Environmental Studies' the picture given in the lesson is not realistic. Page Nos. 57, 60, 61.

7. Areas which need further explanation

Some of the activities in the textbook need further explanation, elaboration and support.

Unit 2-It'd be better to give worksheets after including the reading note related to hygiene.

Unit 3-Infectious diseases, non-infectious diseases. (T.B. Page No. 51) Needs more explanation.

8. Areas in which the explanations are to be simplified

No need of simplification in any of the units but needs more clarity.

Unit 6-The experiment to identify water which can dissolve salt, sugar, etc.

The experiment related to things that absorb water, activities related to things that float on water, do not float on water, etc. should be marked precisely

9. Slots for continuous evaluation

The text book contains possibilities for continuous evaluation in connection with experiments, observation and other group activities.

10. Instances of disparity

There is no possibility of any kind of discrimination when considering the lessons and learning activities throughout the textbook.

11. Prospects of democratic values

There are enough slots for the development of democratic values in almost all the units

12. Student friendly lay out

The present layout is inadequate for making a qualitative impact on children's thoughts

The child cannot understand clearly the different ways of pollution from the pictures related to environmental pollution given in the text. (Page no. 47 of Unit 3).

13. Suitability of the teacher text for transaction of the lessons

The teacher text is suitable for the transaction of all the units. Teacher Text plays a major role in transferring the processing skills and ideas related to environmental studies in children. More explanations for the activities in the lessons are available in the T.T.

Activities adequate for acquiring the learning outcomes are less in environmental studies text book as it is in an integrated version.

Textbook Analysis - Mathematics

Analysis of the II Standard **Mathematics** textbook was made and the details are given under appropriate heads.

1. Conformation with the constructivist paradigm

All the lessons do not go in conformation with constructivism. Though learning activities suitable for construction of knowledge are given in general, some methods directly related to Math given in some units are to be examined.

Unit 5 - The subtraction of two-digit numbers is introduced in various ways in the text book itself. As a part of learning process, the child should find it out for himself/herself based on the instructions of the teacher. Addition (two-digit numbers) is given directly in the same manner. The same problem has been identified in most units.

Unit 6 - In the activity 'The Price of Water', it's not desirable to split the amount Mayakha has with her into 10s and 1s as directly given in the activity.

Different activities given in a mixed up manner in the units are detrimental to the continuation of learning.

2. Suitability of the content in attaining learning outcomes

The content is generally helpful for acquiring learning outcomes. Some ideas directly given in the text book are a barrier to awakening the thinking skills of the child.

The content is suitable for acquiring the learning outcomes related to Number Awareness, Number Interpretation, Addition, Subtraction, Practical Issues, etc.

Unit 5 - The ideas related to subtraction and addition of two digit numbers are given directly in the text.

Unit 6 - The price of water is depicted in split pictures of notes and coins.

3. Suitability of the content for activity based learning

Almost all units contain activities suitable for acquiring processing skills. Yet, as the activities are given in a mixed up manner, learners are forced to concentrate on the subsequent activities before they are thorough with one processing skill.

Unit 5 - Auditing, Find Out the Length, Logs, Guess and Tell.

Unit 6 :Measurement, Finding Out the Price. The text book in general contains learning activities supporting the acquisition of mathematical skills. Yet, some activities given directly can be avoided.

4. Diversity of learning activities

Diversity of learning activities is ensured in almost all units

5 Child friendly language

All the units follow a child friendly approach with respect to the use of language. The language used is appropriate for the lessons.

6. Suitability and clarity of pictures, graphs and maps

The pictures used are appropriate for the lessons.

7. Areas which need further explanation

The parts of lessons which need more elaboration are less. Yet, it'd be better if the activities are made self-explanatory in the following units.

Unit 1:Domino game should be made self-explanatory. E.g. 'Buy Banana' (T.B.34)

Unit 3:Balanced Diet (Page-50). It'd be better if it is changed suitably for a second standard student. The chapter on Auditing also needs further explanation.

Unit 4:Towards Agriculture.

Unit 6: Bottled Water.

Unit 5:Motor Cycle Rally.

8. Areas in which the explanations are to be simplified

It'd be better if the explanations given in some units are simplified.

Unit 3-Nourishing Food Given in Aswin's school. The activity 'Egg and Milk Given to Children' should be simplified. It'd be better if 'Identify the Patterns' given in various units are a little more simplified.

9. Slots for continuous evaluation

There are a lot of possibilities for continuous evaluation in the text book.

10. Instances of disparity

All students can be made to participate in learning activities only if some changes suitable to satisfy the level of a second grade student are made in the activities given in the text book.

An indiscriminate classroom atmosphere can be created only if some activities are made self-explanatory along with the lessons to be simplified.

11. Prospects of democratic values

The text book has given only very little importance to the possibility of group activities. The activities need to be planned to ensure the participation of the learners.

As there are fewer chances for group activities, TMS should be prepared to solve this problem and give a chance to all the students to participate in learning activities. Not much importance is given to activities for differently-abled learners.

12. Student friendly lay out

All the units invariably keep a student friendly layout

13. Suitability of the teacher text for transaction of the lessons

T.T can overcome the limits of the text book to a certain extent.

Teacher text helps the teachers to plan the learning activities enabling the acquisition of processing skills and to take into consideration the learners of all levels.

There are no big criticisms about the Math text of second grade. Yet, the discontinuity of learning activities negatively influences learning.

Analysis of Data collected from HMs

Data collected from the HMs are analyzed and presented.

School Resource Group (SRG) meetings

The head teachers under study were asked how often they conduct SRG meetings at school. Their responses are given in table 8.1.

Table 8.1

Number of SRG's conducted per month

Frequency of S.R.G's per month	Number of H.M.s	Percentage
1	16	8.89
2	58	32.22
3	32	17.78
4	70	38.89
More than 4	4	2.22

The table 8.1 above gives the frequency of SRG meetings conducted at schools per month, as reported by the head teachers. Most of the head teachers conduct SRG meetings twice (32.22%) thrice (17.78%) or even four times (38.89%). Only 8.89% of H.M.s conducts S.R.G.s once a month whereas 2.22% of H.M.s conducts S.R.G's more than 4 times as the situation demands.

The above results indicate that vast majority of the schools conduct SRG meetings more than once in a month. This shows that the schools recognize the importance of conducting SRG meetings as a review and planning body of school activities and hence their higher frequency.

Areas in which the H.M provides suggestions after going through teaching manuals

After going through the teaching manuals the HMs often give suggestions regarding the various aspects related to the classroom teaching. The HMs was asked to list the areas in which they provide suggestions in this way, and their responses are listed in table 7.2.

Table 8.2

Areas in which the H.M provides suggestions after going through teaching manuals

Areas where Suggestions are provided	Number of H.M.s	Percentage
Learning activities	173	96.11
Continuous evaluation	157	87.22
Learning materials and resources	161	89.44
Responses	166	92.22
Qualitative notes	130	72.22
Work sheets	10	5.56
Considering academically backward students	22	12.22
Portfolio	10	5.56
ICT	2	1.11
Home works	1	0.56

As the table 8.2 indicates, the main areas in which the head teachers had offered suggestions after going through teaching manuals of teachers, were- the learning activities to be given to students(96.11%) followed by the areas ‘responses’ (92.22%) learning materials and resources (89.44%), continuous evaluation.(87.22%).and writing ‘Qualitative notes (72.22%). The other minor areas in which their suggestions were given include ‘Considering academically backward students’(12.22%), on preparation and use of ‘Work sheets’ (5.56%), on Portfolios (5.56%),on ICT (1.11%), and on Home works 0.56% .

Therefore it can be inferred that that a vast majority of H.M.s provide suggestions based on Learning activities, Continuous evaluation, Learning materials and resources and Responses.

Support for the development of Art-Sport-Health-Work Experience

The head teachers have to provide support to areas like Art, Sports, Health, and work experience, irrespective of whether they have got enough expertise in these areas. This often causes difficulties to the HMs. The HMs was asked whether they face any difficulty in providing support for the development of Art, sports, Health, and work experience. Their responses are consolidated below in table 8.3.

Table 8.3
Difficulty in providing support for the development of
Art-Sport-Health-Work Experience

Opinion	Number of H.M.s	Percentage
Very much	52	28.89
Some	109	60.56
Not at all	15	8.33
No Response	4	2.22

From the table 8.3 it is apparent that majority of the H.M's experience (60.56%) 'some' difficulty in providing support for the development of arts, sports, health and work experience while 28.89% reported that they feel 'very much' difficulty in providing support. However 8.33% of H.M.s reported that they experience no difficulty at all in providing support for the development of Art-Sport-Health-Work Experience.

Therefore it is interpreted that a vast majority of H.M.s need to develop a clear understanding of the different aspects related to the development of Art-Sport-Health-Work Experience and the resources that can be used etc, for providing support for the same.

Areas where difficulties are observed

HM's often face difficulties in providing support for the development of arts, sports, health and work experience, with respect to their different areas. The following are the areas where they face difficulties in giving support (Table 8.4).

Table 8.4**Areas where difficulties are observed**

Areas	Number of H.M.s	Percentage
Financial	145	80.56
Infrastructure	127	70.56
Experts / Expertise	145	80.56
Collaboration	56	31.11
Other areas		
Insufficient funds	18	10
The Rule of not to collect money from students	9	5
Lack of Art and Physical education teachers	53	29.44
Lack of adequate space	37	20.56
The huge expenditure required for exhibitions	4	2.22
Lack of services of Experts	18	10
Lack of definite and continuous curriculum	3	1.67
Lack of co-operation from parents	7	3.89
Paucity of time	21	11.67
Lack of materials	23	12.78
Lack of support from Government agencies	2	1.11
Class charge of Head masters	1	0.56
Financial backwardness of parents	1	0.56
Inadequate training	6	3.33

It is obvious from the table 8.4 that a vast majority (80.56%) of H.M.'s face difficulties in financial aspects and in locating Experts / Expertise in providing supports for the development of Art-Sport-Health-Work Experience. Similarly 70.56% face difficulties related to Infrastructure while 31.11% face problems with collaboration.

The other specific areas where the H.M.'s face difficulties in providing support for the development of Art-Sport-Health-Work Experience are Lack of Art and Physical education teachers (29.44%); Lack of adequate space(20.56%); Lack of materials (12.78%); Paucity of time (11.67%); Insufficient funds (10%); Lack of services of Experts (10%); The Rule of not to collect money from students (5%); Lack of co-operation from parents (3.89%); Inadequate training(3.33%); The huge expenditure

required for exhibitions (2.22%); Lack of definite and continuous curriculum(1.67%); Lack of support from Government agencies (1.11%);Class charge of Head masters (0.56%) and Financial backwardness of parents(0.56%).

From the above results it becomes clear that the major areas in which the HMs face difficulties in providing support for the development of arts, sports, health and work experience, are financial aspects, locating experts and procuring the necessary infrastructure.

Conducting class observation and providing necessary suggestions

The head teachers are expected to conduct class observation and provide suggestions for the improvement of the classroom teaching, when and where necessary. But how far this is going on in schools depends on different factors like the attitude of the HM, his\ her managerial skills and expertise, frequency of administrative duties and the like. Hence it is necessary to see how often the HMs conduct class observation and provide necessary suggestions. The responses of the HMs in this regard are provided in table 8.5.

Table:8.5

Conducting class observation and provide necessary suggestions

	Number of H.M.s	Percentage
Always	64	35.56
Sometimes	112	62.22
Never	2	1.11
No Response	2	1.11

From the table 8.5 it is evident that majority (62.22%) of the head teachers could conduct class observation only ‘sometimes’-may be because they are busy with other official works at school and outside. .Yet more than a third (35.56 %) of H.M.s reported that they ‘always’ conduct class observation and provide necessary suggestions. However a negligible proportion (1.11%) of H.M.s said that they do not conduct class observations at all.

These results are in agreement with common observation. In schools, a good number of headmasters try to conduct class observations and provide necessary suggestions to the teachers as and when possible.

Ensuring attainment of learning outcomes

All the learning activities in and out the classroom are focused towards the attainment of student learning outcomes. Hence, the teachers are to focus on this and the HMs have to ensure whether the students of each class attain prescribed learning outcomes. The HM's understudy were asked whether they try to ensure the attainment of learning outcomes and their responses are given below in table 8.6.

Table 8.6

Ensuring that students attain learning outcomes

	Number of H.M.s	Percentage
Always	105	58.33
Sometimes	70	38.89
Never	2	1.11
No Response	3	1.67

The Table 8.6 suggests that a majority of the H.M.s (58.33%) always ensure that students attain learning outcomes whereas 38.89% sometimes do it. 1.11% of H.M.s do not ensure that students attain learning outcomes at all.

This result indicates that vast majorities of H.M.s are much concerned about the students' excellence and hence try to ensure that students attain learning outcomes.

Making use of services-Experts and Local resources

Making use of the resource support from sources outside the school is now a day a common practice among the schools which aim for more excellence. The HMs were asked whether they make use of the service of experts and local resources and their responses are given in table 8.7.

Table 8.7

Making use of Services

	Number of H.M.s	Percentage
Services of Experts	138	76.67
Local resources	115	63.89
No response	4	2.22

The Table 8.7 reveals that a majority of the H.M.s under study use the services of Experts (76.67%) and Local resources (63.89%). This indicates that the excellence of the students as well as teachers is an important concern of majority of the head teachers and hence they are willing to seek maximum resource support for them from experts and local resources.

Details of use of Services of Experts and Local resources

Services of Experts and Local resources are often adopted for giving additional support in areas where the teachers of the schools cannot support the students adequately .This is made use of in schools related to different areas as required. The areas in which their services are used, as reported by the head teachers are given in table 8.8.

Table 8.8

Details of use of Services of Experts and Local resources

Areas	Number of H.M.s	Percentage
Day celebrations	12	6.67
Arts and sports	18	10
Parental help and support	4	2.22
Agriculture	25	13.89
Awareness programs	60	33.33
Experts classes for students	25	13.89
Experts classes for teachers	68	37.78
Interviews	22	12.22
Strengthening of PTA	4	2.22
Health activities	18	10
Workshops	7	3.89
Field trips	12	6.67

The table above shows that the various areas where the H.M.'s use the services of experts and local resources are, for giving experts' classes for teachers (37.78%); awareness programs (33.33%); Agriculture (13.89%); Experts' classes for students (13.89%); Interviews (12.22%); Arts and sports (10%); Health activities (10%); Day celebrations (6.67%); Field trips (6.67%); Workshops (3.89); Parental help and support (2.22%) and Strengthening of PTA(2.22%).

The results shows that the head teachers are much aware about the excellence that can be brought to their institution availing services of Experts and Local resources and the different areas in which they can be availed .

6 (b) Reasons for not availing services

Most of the schools in Kerala try to avail Services of Experts and Local resources. If at all they do not avail them, there are specific reasons for it. The responses of the head teachers regarding the reasons for not availing of services of experts and local resources are as follows:-

Lack of services of experts

Over-workload of Teachers

Over-workload of Head teachers.

Financial constraints

The contexts of availing the services of SMC/PTA

SMC/PTA is a statutory body for giving support to the schools in various contexts. In almost all the schools it is functioning effectively too. The different contexts, in which the services of the SMC / PTA are availed, as reported by the headmasters, are given below in table 8.9.

Table 8.9
Contexts of availing the services of SMC/ PTA

Context	Number of H.M.s	Percentage
Re-opening festival	179	99.44
Day celebration	162	90
Noon-Meal	152	84.44
Club activities	138	76.67
Anniversary	152	84.44
Festivals (Mela)	154	85.56
Other Contexts		
Celebrations	8	4.44
Agriculture	11	6.11
Seminar Workshops	5	2.78
Awareness programmes	12	6.67
Health activities	8	4.44

Infrastructure	23	12.78
Field trips	60	33.33
Camps	6	3.33

The table 8.9 makes it clear that a vast majority of the H.M.s make use of the services of SMC/PTA in the following contexts - Re-opening festival (99.44%); Day celebration(90%); Festivals (Mela) (85.56%); Noon-Meal (84.44%); Anniversary (84.44%) and majority of them for Club activities(76.67%). The other contexts where the services of SMC/ PTA are availed are Field trips (33.33%); Infrastructure (12.78%); Awareness programmes (6.67%); Agriculture (6.11%); Celebrations (4.44%); Health activities (4.44%); Camps (3.33%) and Seminar Workshops (2.78%).

Therefore it can be interpreted that a vast majority of the H.M.s make use of the services of SMC/PTA in different occasions as and when required and their service is mostly availed during the re-opening festival-the pravesanotsavam- and day celebrations.

Table 8.10
Contexts of availing the services of MPTA

Context	Number of H.M.s	Percentage
Re-opening festival	169	93.89
Day celebration	147	81.67
Noon-Meal	156	86.67
Club activities	110	61.11
Anniversary	151	83.89
Festivals (Mela)	142	78.89
Other Contexts		
Celebrations	9	5
Agriculture	10	5.56
Seminar Workshops	5	2.78
Awareness programmes	11	6.11
Health activities	10	5.56
Infrastructure	15	8.33
Field trips	50	27.78
Camps	6	3.33

Mother PTA is one of the most effective agencies rendering support to the school activities. The table conveys that a vast majority of the H.M.s make use of the services of

MPTA in the following contexts - Re-opening festival (93.89%); Noon-Meal (86.67%); Anniversary (83.89%); and Day celebration(81.67%); and majority of them for Festivals (Mela) (78.89%) and Club activities(61.11%). The other contexts where the services of MPTA are availed are Field trips (27.78%); Infrastructure (8.33%); Awareness programmes (6.11%); Agriculture (5.56%); Health activities (5.56%); Celebrations (5%); Camps (3.33%) and Seminar Workshops (2.78%).

It can be inferred that vast majority of the H.M.s make use of the services of MPTA for their school in various occasions especially there-opening festival, Noon-Meal programme, school anniversary and Day celebration whereas majority of them avail its services for Festivals (Mela) and Club activities.

Contexts of availing the services of Local Self Government (LSG)

Local Self Government Play an important role in promoting school education. The different contexts in which the services of the LSG is made use of, as reported by the HMs are given below in Table 8.11.

Table 8.11
Contexts of availing the services of LSG

Context	Number of H.M.s	Percentage
Re-opening festival	123	68.33
Day celebration	83	46.11
Noon-Meal	67	37.22
Club activities	52	28.89
Anniversary	128	71.11
Festivals (Mela)	68	37.78
Other Contexts		0
Celebrations	3	1.67
Agriculture	4	2.22
Seminar Workshops	2	1.11
Awareness programmes	4	2.22
Health activities	4	2.22
Infrastructure	17	9.44
Field trips	11	6.11
Camps	4	2.22

The table 8.11 represents that a majority of the H.M.s make use of the services of LSG for Anniversary (71.11%) and Re-opening festival (68.33%). L.S.G is also made use of, by H.M.s, for Day celebration(46.11%); Festivals (Mela) (37.78%); Noon-Meal (37.22%) and Club activities(28.89%).

The other contexts where the services of LSG availed are, for the development of Infrastructure (9.44%); Field trips (6.11%); Awareness programmes (2.22%); Agriculture (2.22%); Camps (2.22%), Health activities (2.22%); Celebrations(1.67%); and Seminar /Workshops (1.11%).

Therefore it can be inferred that a majority of the H.M.s make use of the services of LSG for Anniversary and Re-opening festivals.

Contexts of availing the services of Alumni

Alumni associations are nowadays on stage rendering support to school in various ways as all the members have a favourite feeling about their school. The different contexts in which the services of the alumni association is availed, as listed by the HMs are given Table 8.12.

Table 8.12
Contexts of availing the services of Alumni

Context	Number of H.M.s	Percentage
Re-opening festival	57	31.67
Day celebration	38	21.11
Noon-Meal	14	7.78
Club activities	29	16.11
Anniversary	103	57.22
Festivals (Mela)	57	31.67
Other Contexts		
Celebrations	2	1.11
Agriculture	2	1.11
Seminar Workshops	2	1.11
Awareness programmes	3	1.67
Health activities	3	1.67
Infrastructure	11	6.11
Field trips	7	3.89

Camps	3	1.67
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It is evident from the table 8.12 that the services of the alumni of the school is availed by majority of the H.M.s for Anniversary (57.22%), whereas alumni support is also utilised by H.M's for Re-opening festival (31.67%); Festivals (Mela) (31.67%); Day celebration (21.11%); Club activities(16.11%) and Noon-Meal (7.78%).

The other contexts where the services of alumni are availed are, Infrastructure (6.11%); Field trips (3.89%); Awareness programmes (1.67%); Health activities (1.67%); Camps (1.67%); Agriculture (1.11%); Celebrations (1.11%); and Seminar Workshops (1.11%).

It can be inferred from the above results that although majority of the H.M.s make use of the services of alumni for Anniversary, the services of alumni is not properly utilised with regard to other aspects.

Ensuring sharing of ideas received by teachers from training

The teachers are expected to have up to date knowledge about the different subjects, strategies that can be adopted to transact the curriculum , innovations made in the education field, and programmes implemented by agencies like DIET, SSA, SCERT, SIEMAT etc related to school education. Hence it is very important to ensure that the sharing of ideas takes place in school, following each training. It is the Headmaster who has to take initiative to ensure such sharing. The responses of the HMs on ensuring sharing of ideas by teachers are given in table below:

Table 8.13

Ensuring that teachers share ideas they receive from training programmes

	Number of H.M.s	Percentage
Yes	175	97.22
No	4	2.22
No Response	1	0.56

From the table 8.13 it is evident that a vast majority of the H.M.s (97.22%) ensure that teachers share ideas they receive from training programmes whereas 2.22% do not do so.

It is imperative from the results that vast majority of H.M.s recognize the need for sharing of ideas by teachers following all training and they ensure it.

Learning situations for different level of students

While focusing on the majority of average students, the gifted students and students with learning difficulty are often ignored. This cause serious effects as the talents of the gifted students often go unreaped while the problems of slow learners remain unsolved. Hence it is the duty of the HMs to take necessary steps to ensure that proper learning situations are provided to each children according to their ability. The responses of HMs regarding the Steps taken by them to provide proper learning situations for students who face difficulties in learning and for gifted children are provided in the tables below:

Table 8.14
Steps taken by HMs to provide proper learning situations for students who face difficulties in learning

	Number of H.M.s	Percentage
Special class for those who do not know to read and write	144	80
Use of ICT resources	4	2.22
Use special learning materials and resources	7	3.89
Providing learning materials	8	4.44
Providing work sheets	9	5
Providing special support	3	1.67
House visits and arranging conducive facilities at home	29	16.11
Peer group study	20	11.11
Providing financial support	4	2.22

It is understood from the table 8.14 that a vast majority of the H.M.s (80%) organize special classes for those who do not know how to read and write. Similarly, to provide proper learning situations for students who face difficulties in learning, H.M.s take the following measures - House visits and helping to arranging conducive facilities at home (16.11%); Peer group study (11.11%); Providing work sheets (5%); Providing learning materials (4.44%); Use special learning materials and resources (3.89%); Use of ICT resources (2.22%); Providing financial support (2.22%) and Providing special support (1.67%).

The results indicate that different measures are adopted by the schools for providing proper learning situations to children with learning difficulties, the most common programme being arranging Special class for those who do not know to read and write.

Table 8.15**Steps taken by HMs to provide proper learning situations for gifted students**

	Number of H.M.s	Percentage
Quiz and other competitions	40	22.22
Encouragement	24	13.33
Library and extra reading materials	39	21.67
Additional work	10	5.56
Debates/ Seminars	1	0.56
Competitive examinations training	60	33.33
Expert classes	14	7.78
Use of Labs	8	4.44
Special (Extra) training	30	16.67
Scholarships	10	5.56
Giving more opportunities	12	6.67
Motivation classes	2	1.11
Supporting those who are backward	13	7.22
Field trips	2	1.11
Camps	4	2.22

It is understood from the table 8.15 that H.M.s take the following steps to provide proper learning situations for students who are gifted/ talented:- Competitive examinations training (33.33%); Quiz and other competitions (22.22%);Library and extra reading materials(21.67%);Special (Extra) training(16.67%); Encouragement (13.33%); Expert classes (7.78%); Supporting those who are backward(7.22%); Giving more opportunities(6.67%); Additional work(5.56%); Scholarships(5.56%);Use of Labs(4.44%); Camps(2.22%);Motivation classes (1.11%); Field trips (1.11%) and Debates/ Seminars (0.56%).

Therefore it is deduced that not much steps are taken by H.M.s for providing proper learning situations for students who are gifted/ talented. It is a sad truism that while the schools take up many programmes for the uplifting students with learning difficulties, enrichment of gifted students to enhance their talents is not given much importance

It is startling to note that 1.67% of the H.M.s do not take any steps to provide proper learning situations for students who face difficulties in learning for various reasons as well as those who are gifted and talented.

Effectiveness of ISM Monitoring at school

Table 8.16
Effectiveness of ISM monitoring in school

	Number of H.M.s	Percentage
Yes	52	28.89
No	128	71.11

As seen in table 8.16, 71.11 % of HMs reported that ISM team had not paid monitoring visit to their school, while 28.89% replied in the affirmative.

Therefore it is interpreted that ISM visit was not paid in a vast majority of schools

Effectiveness of ISM monitoring visit

Table 8.17
Effectiveness of ISM monitoring visit

	Number of H.M.s	Percentage
Yes	51	98.08
No	1	1.92

Out of those HMs who reported that ISM team had paid visit to their schools, 98.8 % reported that the ISM monitoring visit was effective. This indicates that the ISM team could have given academic support to the school giving clarifications and suggestions regarding the various aspects of school activities.

Help and support received from ISM

As the name implies, Internal Support mission (ISM) is intended to give feedback and academic support on the school functioning. Suggestions and directions are expected to be given for making the school activities effective, if necessary. The responses of those head teachers, who reported that ISM team had paid visit to their schools, are given in table 8.18.

Table 8.18
Help and support received from ISM

	Number of H.M.s	Percentage
Got directions for Quality improvement	10	19.61
Possibilities /Scope of TLM became clear	5	9.80
Improvement of Infrastructure	1	1.96
Improvement of Noon-meal	2	3.92
Started special training for backward students	10	19.61
Pointed out the deficiencies	9	17.64
Got directions for making classes effective	8	15.69
Empowerment of Teachers	5	9.80
School became disciplined and in order	1	1.96
Got directions for Activity- based learning	3	5.88
Enhancement of confidence of teachers	3	5.88
Enhancement of efficiency	2	3.92
Clearing of doubts	2	3.92
Got directions for conducting SRGs effectively	4	7.84

The table 8.18 offers the opinions of H.M.s regarding the help and support that they had received from ISM team in the following ways:- Got directions for Quality improvement (19.61%) Started special training for backward students(19.61%); Pointed out the deficiencies(17.64%); Got directions for making classes effective(15.69%) Possibilities /Scope of TLM became clear (9.80%); Empowerment of Teachers (9.80%); Got directions for conducting SRGs effectively (7.84%); Got directions for Activity- based learning (5.88%); Enhancement of confidence of teachers (5.88%); Improvement of Noon-meal (3.92%); Enhancement of efficiency(3.92%) Improvement of Infrastructure (1.96%); and School became disciplined and in order(0.56%).

Therefore it can be interpreted that the ISM team visit is effective in the sense that it helps for the improvement of school by rendering support in different areas , mostly giving directions for quality improvement, special training to backward students, and pointing out the deficiencies.

Suggestions given by the HMs for the improvement of ISM are as follows:-

- ISM should be conducted in all classes
- ISM should be conducted in all the three terms

- Follow-up Supervisions should be conducted
- ISM should be linked with Clusters and Teacher trainings
- ISM should include expert teachers
- Discussions based on evaluation should be conducted after (outside) school hours

Social relationship activities carried out in your school this academic year

The school curriculum envisages the extension of student activities to the society related to the knowledge and skills they had acquired at each stage. This gives practical experience to the students as well as helpsthem to be the useful citizen of the society. There are different areas in which the students can be indulged as a social relationship activity. Responses of the HMs regarding the social relationship activities conducted at school are given in table 8.19

Table 8.19
Social relationship activities carried out in school

	Number of H.M.s	Percentage
Cleanliness drive	161	89.44
Environment protection activities	150	83.33
Water resource management	53	29.44
Energy conservation activities	43	23.89

The table 8.19 shows that a vast majority of H.M.s took initiative to carry out Cleanliness drive (89.44%) and Environment protection activities (83.33%) whereas Water resource management and Energy conservation activities were done by 29.44% and 23.89% respectively.

Therefore it can be inferred that a vast majority of H.M.s carried out Cleanliness drive and Environment protection activities in their schools whereas other areas seem more or less given lesser importance. There are also minor areas suggested by very negligible proportion of the HMs under study which include:-

Distribution of learning materials

Distribution of Uniform

Sports meet for parents

Annual day celebrations/ other celebrations

Vacation programmes
Development of Infrastructure
Activities against the use of drugs and intoxicants
Rally against wars
Awareness classes for parents
Agriculture activities
Opening day festival
Field trips
Home visits
Rendering help to old age homes
Charity works
Awareness on Road safety
Motivation classes
Drama camps
Reading by mothers

Discussion with PTA/LSG

- PTA Members reported that general body meeting will be conducted at the beginning of the academic year and executive committee meetings are conducted as and when required. Most of the executive members attend the executive meetings along with the teachers.
- MPTA and CPTA meetings are conducted for ensuring the security, quality of noon meal and to provide suggestions for academic improvement.
- MPTA and CPTA meetings are to be convened as per the convenience of parents. In addition to this awareness programmes are to be conducted.
- It is reported that the facilities such as classrooms/smart classroom, toilets, facilities for the differently abled, lab and library are available in most of the schools. But not sure about the utilization of smart classroom, lab and library.
- The major interventions made by them are donating books to the library
- Regarding the revised textbook, they reported that the text books are learner friendly, attractive and suitable for intellectual level to a certain extent. The activities included in the text book are learner friendly and practicable.
- They are unaware of the learning outcomes.

- Since there are no teachers to handle the subjects like art education, physical education and work experience, mostly students are exposed to playgrounds during these periods.
- No support is rendered by PTA for the CWSN students.
- PTA renders services to solve problems, if any.
- PTA is one of the essential components of school management
- PTA plays an important role in the availability and utilization of funds.

Discussion with AEO

- Majority of the AEOs (more than 80%) reported that they conduct monitoring of the academic activities and give support wherever and whenever needed. In addition to this they motivate teachers by appreciating their excellence.
- According to them majority of the teachers do not prepare teaching manual as envisaged in the teacher text. It is found that majority of the teachers feel difficulty in writing reflective notes and support is needed for
- Many of the teachers use teaching learning materials for making the classroom teaching effective. But some of the teachers are not even using the learning materials available in the school
- It is found that the major learning material used in the classroom is the textbook itself
- In more than half of the classes the teaching learning process takes place effectively. It is significant to note that certain classes are not at all effective.
- In majority of classes learning products are displayed. But only in certain schools the display of products are periodically updated. It is found that the majority of the teachers are not making use of these products later.
- Service of the teachers in a school is permitted for the smooth conduct of programmes like Youth festival and science fairs in other schools
- AEOs reported that during monitoring, they ensure whether due consideration is given to differently abled, slow learners, gifted students,
- Constant and continuous monitoring and support in organizing programmes and fairs related to art and physical education.
- AEOs reported that they give creative and valuable suggestions for the smooth conduct of PTA and SMC

- AEOs are involved in the programmes of village education committees actively
- All the AEOs reported that the internal Support Mission (ISM) visits were very much effective in enhancing the academic as well as administrative excellence.
- AEOs participate in the DRG training of the Cluster, and they monitor each cluster and make sure that the cluster is conducted as per the module
- The infrastructure facilities of the school as well as the classroom facilities are monitored and necessary suggestions are given for their improvement.
- AEOs ensure that the funds allotted to schools are properly utilized and the records are kept
- They monitor the noon meal programme and ensure that nutritious and hygienic food is given to the students without fail.
- Majority of the AEOs feel that team monitoring is more effective than individual monitoring as both administrative and academic aspects could be monitored within a single visits

Chapter 3

FINDINGS AND SUGGESTIONS

The aim of the present study is to assess the implemented curriculum in second standard of the Kerala state. This part presents the major findings of derived from the study based on the data collected using various methods. Data were collected for the teachers, headmasters, students, PTA/LSG members and AEOs and analysed separately. Classroom observations were also conducted by using the schedule. An in-depth analysis of textbook and teacher text was also analysed and presented the findings.

Data collected from the teachers are analysed and findings derived from it are presented in the learning outcome, learning resources, learning process, evaluation and support system.

Learning outcome

- Study revealed that the characteristic features of the learning outcomes envisaged in the curriculum 2013 were clear to majority of teachers who were teaching in class II. But, 20.96 percent of teachers do not have clarity regarding the characteristic features of the learning outcomes envisaged in the curriculum 2013.
- The learners of second standard couldn't achieve the expected learning outcomes to be aimed through the transaction of the content. Simplification of the content, special training and extended activities are the suggestions given by the teachers of class II.
- It is inferred that the teachers (67.66%) of standard II couldn't differentiate between short term and long term learning outcomes.
- The learning outcomes of second standard were arranged in such a way to ensure the continuity and development of it from the lower to higher classes.
- Almost all the teachers of standard II agree that the outcomes given in different units are observable and measurable; nearly 10% of the teachers disagree with it.
- Study reveals that 34% of teachers were not able to understand the ideas/skills to be acquired from each unit through the learning outcomes.
- Learning outcomes given in different units of II standard textbooks were according to the age level of learners.
- Result shows that majority of teachers have the opinion that the learning outcomes are helpful to some extent for self-evaluation and outcome focused methodology is helpful in ensuring the level of learning envisaged by RTE Act.

Learning resources

- Majority of teachers favours the most of the characteristics of the textbook like content appropriate, conceptual clarity, adequate activities, opportunity to foster the creativity, language appropriate, pictures, lay-out, etc., but, 57.49% of teachers opined that activities considering different levels of learners are not present in the text book.
- Majority of teachers supports the teacher text of standard II in many aspects like text book and teacher text are complementary to each other(97.60%), hints given are suitable for transacting the content(97.01%), helpful in preparing the TM(97.60%), instructions given for CE and TE(95.21%), provided suitable tools for evaluation (95.21%) and helps the teacher in attaining clarity in the general approach of the curriculum.
- Majority of teachers reported that they are using pictures (98.20%), reading materials prepared by teachers (97.01%), Resource CD (77.25%), Tables (88.02%) and Local resources (85.03%) other than TB and TT.
- It is found that 57.49% teachers reported that it is the Resource teachers who mainly provide help in the adaptation of CWSN.
- It is found that school is equipped to carry out the activities related to arts education(59.28%), health education(61.68%) and work experience (61.08%) to some extent level. They also reported that they are able to make available local resource to some extent level in the areas related to arts education(68.86%), health education(65.87%) and work experience (65.27%). It is significant to note that only around 50% of teachers opined that they are able make use of TT for arts education(56.89%), health education(52.69%) and work experience (51.50%) to great extent level.
- Art: Lack of special teachers who possess good skills and aptitude in art subjects, Lack of resource persons and Difficulty in linking with scholastic area are the major limitation of the art education. Provide special teachers for art education and Clubbing the schools and appointing resource persons in art education are the suggestions given by the teachers.
- Sports and Health Education: Lack of special teachers for sports and health education is the main limitation. Providing resource persons with the co-operation of local bodies, Appoint special teachers for sports and Ensuring regular service of health workers/nurses in schools are the suggestions.

- Work experience: Lack of trained teachers and Lack of awareness in transacting workbook are the major limitation. Teachers suggested providing training to teachers at the beginning of academic year.
- Majority of teachers (96.41%) reported that they evaluated the products, encouraged the learners outstanding products (97.01%) and utilized the possibility of re-using the products (92.81%). Only very few (13.17%) of teachers opined that they conducted exhibition of the products.

Learning process

- Half of the teachers of class II experienced difficulties while planning learning activities. Life skills, Continuous evaluation, Community bound activities, Values/attitudes, and Utilizing learning resources, are thrust areas that posed difficulty while planning the learning activities. Enhance infrastructure facilities, Ensure ICT availability, Provide training in ICT and WE, recruit teachers in Arts and sports are the remedial measures suggested by teachers to overcome difficulties experienced in the various thrust areas
- Enhance infrastructure facilities, Ensure ICT availability, Required more training in WE and ICT and Arts and sports teachers to be recruited are the remedial measures suggested by teachers to overcome difficulties experienced in the various thrust areas
- Teachers of class II (78.44%) sometimes ensured the development of Process skills in the learners through learning process.
- Majority of Teachers of class II planned and implemented learning activities to attain conceptual clarity through multi-sensory experiences. However 14.37% of the teachers did not do so.
- Majority of teachers (94.01%) reported that curriculum is considered appropriate for enabling learners to apply the knowledge acquired through learning process in their daily life.
- ‘Lack of time’ (70.06%) and ‘Lack of facilities/materials’ (36.53%) are the major reasons for experiencing difficulty while making use of appropriate learning strategies.
- Majority of Teachers of class II (71.26%) are planned and implemented learning activities to overcome the constraints of slow learners, whereas 28.74% did not.
- The reasons for difficulty while planning and implementing learning activities to overcome the constraints of slow learners are ‘Lack of specially prepared learning materials (17.96%) and ‘Lack of time’ (22.75%). The other difficulties pointed

out are overcrowded classroom, lack of interest of learners, non-cooperation of parents and unsuitable textbook.

- Majority (961.08) of the Teachers did not ensure the attainment of learning outcomes in different levels of learners.
- Even though majority of teachers (95.03%) implemented learning activities to enrich the abilities of gifted learner, 14.97% of them did not do so due to difficulty in planning challenging learning activities and lack of time.
- Difficulty in planning challenging learning activities and 'Lack of time' are the major reasons for the Implementation of learning activities of gifted learners
- Majority of teachers(67.66%) sometimes ensured the maximum participation of all learners. Only 29.94% always ensured full learner participation.
- It is serious note that only 55.69% of teachers always transacted the content in a learner -friendly manner while 41.92% teachers sometimes.

Evaluation

- Even though majority of teachers got a clear idea about Continuous Evaluation, about 13.77% teachers need more clarity regarding Continuous Evaluation.
- A significant number of teachers need more clarity in the area of Continuous Evaluation viz. Assessment of Learning Process (7.78%), Portfolio Assessment (4.19%), Recording (2.99%) and Unit Assessment (1.20%).
- From the analysis it is clear that 32.34% of teachers were not able to ensure learning and to provide support to learners though continuous evaluation. Lack of time, Lack of awareness, Complexity of learning process and Overcrowded class rooms are the major practical difficulties faced while ensuring learning and providing support to learners while out CE.
- Majority of teachers are able to carry out learning process and evaluation simultaneously, a significant number of teachers (16.17%) are not able to undertake the task successfully. Practical difficulties in learning process and evaluation are due to lack of awareness about suitable strategies and giving more emphasis to learning process than evaluation.
- Significant percentage of teachers (13.77%) reported that the indicators related to different areas of evaluation are not specific.

- Overcrowded classrooms (24.55%), Lack of suitable criteria (15.57%), Lack of awareness to the teachers (3.59%) and Lack of planning (2.99%) are the other problem faced by teachers during assessment of learning process
- Teachers reported that they provide opportunities for self-assessment (97.60%) and (86.23%) for peer evaluation.
- It is found that result of the study shows that 30% of teachers were not preparing indicators for evaluation.
- Majority (94.01%) of teachers are providing opportunities to exhibit their products related to self-evaluation and peer evaluation, but a very few of teachers are not providing at all.
- Majority of teachers (77.84%) are using Class test for unit wise evaluation. Teachers are considering different records such as Notebook, Worksheet, Project/seminar report, answer scripts, short notes and creative writings for continuous evaluation. It is significant to note that 58.68% of teachers are considering project/seminar reports and 69.46% of teachers are considering answer sheets for continuous evaluation.
- Even though majority of teachers are giving feedback based on CE a significant number of teachers (19.16%) are not giving feedback on CE for parents
- Teachers are providing remedial instruction based on feedback from Continuous Evaluation, significant percentage of teachers (13.17%) are not providing.
- Giving support (76.05%), Follow-up activities (70.06%), changing the process (46.71%) and Peer tutoring (43.71%) are the various strategies adopted by the teachers for remedial teaching.
- Majority of teachers (74.85%) accurately record the details of continuous evaluation, 25.15% of teachers did not record accurately the details of continuous evaluation.
- From the analysis it is clear that 57.49% of teachers are framing different strategies for CWSN learners. But a significant percentage of teachers (42.51%) were not framing different strategies for CWSN learners.
- Majority of teachers were not facing any difficulties related to TE, a significant number of teachers (22.16%) have difficulties related to TE. It is found that a few teachers reported that they experienced difficulties related to term evaluation. The difficulties are inadequate evaluation strategies, difficulty in grading and difficulty in recording.

- About half of the teachers are not able to conduct evaluation related to arts, sports and work experience effectively.
- A significant number of teachers are not carrying out evaluation and recording of socio-emotional areas like empathy, problem solving skill, creative thinking, critical thinking, and coping with stress. Majority of teachers are evaluating and recording socio-emotional areas like interpersonal skill(79.64%), decision making(80,24%), self-awareness(65.87%) and communication skill (64.07%).

Support system

- From the analysis it can be inferred that great majority of teachers received support from HMs(98.20%) and BRC(95.21%). Majority of the teachers received support from, SMC/ PTA(84.43%), MPTA(88.42%), SSA(82.04%), SSG(76.05%), DIET(55.09%), SCERT(49,10%) and ISM (52.10%). Support from LSG was reported by less than half of the teachers. Only a very low percentage of teachers received support from Alumni,SPC and NGOs.
- Teachers opined that they get support from various agencies for enhancing infrastructure, ensuring child rights, nurturing life skills, creating environmental awareness , waste management, health and physical education , art and work experience and guidance and counseling.
- Majority of the teachers (74.85%) opined that self- improvement using feedback based on monitoring is done to some extent. It is clear that 94.01% of the teachers agreed that academic improvement was done one-self on the basis of the feedback
- Most of the teachers (95.81%) agree that follow up activity was carried out based on the monitoring
- Teachers reported that they are getting training in areas related to content, teaching learning strategies, products , art and work experience education, ICT, /TE, Inclusive education, learning outcome, learning resource, health and physical education and guidance and counseling.But is serious to consider that they need more clarity in areas related to Health and Physical education, Inclusive Education and guidance and Counseling.
- Below fifty percentage teachers opined that the training was helpful for them in transacting the lessons to a great extent level while 44.3% training was helpful only to some extent level.

Findings based on adequacy of resources in the text book

Integration

- It is revealed that majority of teachers agreed that ideas related to the learners environment are integrated with language (89.82%), preparation of a separate text book for mathematics integrating learning experiences is helpful in improving the mathematical learning abilities of learners (92.22%), the language, pictures, layout etc. are attractive (86.23%), Integrating learning activities do not obstruct the attainment of learning outcomes (71.86%), Language skills and Scientifics skills are developed through Integration (70.66%), Integration of learning activities do not hinder the development of Mathematical skills (82.04%) and Instructions given in the Teacher text are helpful in the transaction of the textbook (82.04%).
- Majority of teachers (97.01%) opined that textbook have suitable learning experiences required for the attainment of language and scientific skills. Same time, 22.16% of teachers were not able to carry out learning activities by integrating arts-sports-health and work-experience. It is serious to consider that Some teachers opined that integration of learning activities with arts, sports, health and work experience is possible only in some areas.
- According to 12.57% teachers certain learning materials / learning ideas in Class two are difficult to transact through integration.
- Transaction of mathematics is done in a time bound manner, Parents were able to help their children and at the same time they could intervene easily, he textbook is useful for learners who are good at studies, and extra time may be used to instill mathematics skill among learners are the merits in preparing a separate mathematics text book by integrating learning experiences
- Difficulty in ensuring spiraling, TB not useful for the learners who are weak in studies, and necessity in including more activities related to Mathematics are the demerits in preparing a separate mathematics text book by integrating learning experiences.
- Life related ideas included in the second standard integration textbook are Nationalism, Respect for suppressed, Respect towards one's own profession, Fraternity, Ideas to improve life skill and values, Moral stories, Social relations, Stories that convey love, morality, discipline and obedience and Simple stories from the life of great people.

- It is revealed that 48.50% of teachers were facing difficulty while transacting discourses through Group work (15.57%), Presentation (18.56%), Model presentation (13.17%), Editing (25.15%) and Evaluation (18.56%).
- Majority of the teachers responded that adequate slots are there in the TB and TT for learning process like Observation (91.62%), Comparison (91.62%), Categorization (91.62%), Analysis (89.22%), Inference (87.43%) and Simple experimentation (91.02%).

Mathematics

- Only half of teachers (50.30%) reported that Learners can analyze and solve problem by themselves to great extent level using the Mathematics text book.
- The difficulties faced by the teachers while transacting mathematics to the second standard learners are in transacting abstract mathematical ideas (41.32%), analyzing and solving problems by learners themselves(49.70%) , lack of clarity in certain areas of Mathematics and inability to complete worksheets (44.31%) .

Classroom observation: English

- Analysis of the English classroom observation reveals that Teaching Manual, Preparation, Interest and Motivation, Learning Activities, Learning Environment, Classroom Intervention, Reflective Thought, Consolidation, Evaluation Process and Overview of the Class are very good or good in most of classes.

Classroom observation: Environmental Studies

- Analysis of the Environmental Studies classroom observation reveals that Teaching Manual, Preparation, Interest and Motivation, Learning Activities, Learning Environment, Classroom Intervention, Reflective Thought, Consolidation, Evaluation Process and Overview of the Class are need improvement.

Classroom observation: Mathematics

- Analysis of the Mathematics classroom observation reveals that Teaching Manual, Preparation, Interest and Motivation, Learning Activities, Learning Environment, Classroom Intervention, Reflective Thought, Consolidation, Evaluation Process and Overview of the Class are very good or good in most of classes.

Analysis of Answer sheet of Malayalam: Error analysis

- Complete the conversation:Majority of the students are supposed to acquire the skills to prepare a conversation using suitable letters and signs with clarity of ideas appropriate to the situation.

- Completion of story: Children show a lack of comprehension in the usage of suitable linguistic expression, sequence of ideas etc.
- Prepare description: Children experience a lack of comprehension in completing the activity using letters and signs with clarity of ideas
- Recount riddles: Maintains the learners an average standard in riddles and language games.
- Prepare invitation letter: There is a lack of clarity about simple language forms for expression of ideas including content, structure, linguistic usages.
- Poem completion: Children face a practical difficulty in engaging in independent creations using appropriate language/expression without spelling mistakes.

Analysis of Answer sheet of Mathematics: Error analysis

- The learners Lack skills for analysis and classification .
- Learners are not able to identify number relations.
- Difficulty in identifying number pattern and geometrical figures
- Difficulty in problem analysis and problem solving

Analysis of Answer sheet of Integration: Error Analysis

- Skills for analysis , inference, data collection and classification were not attained
- Have not achieved the capability/skill to analyze and formulate inference
- No idea about the habits of hygiene or cleanliness

Textbook Analysis - English

- Some of the lessons in units 1, 3 and 5 are not suitable for constructivism. Language elements are included in the context only but there are no activities to develop or practice them.
- The vastness of the content hinders proper transaction. The language used is not up to the level of standard 2 learners.
- Ample opportunities for process oriented learning are given in the text book.
- The text book has failed to provide variety of activities.
- With respect to the use of language, all the units follow learner friendly approach, but the vocabulary used in the text is quite unfamiliar.
- Most of the pictures are not attractive and lack clarity.
- Some of the lessons in the text require more clarity and explanation.
- Slots ensuring evaluation are not given in each unit.

- There is no possibility of any kind of discrimination throughout the textbook.
- The lessons help to inculcate democratic values among learners.
- The layout of the text book is neither child friendly nor attractive.
- The teacher text facilitates proper planning and creativity.
- ICT integration is a challenging task for practicing teachers. Language activities are not given much importance.

Textbook Analysis - Integration

- While analyzing the lessons of environmental studies in second standard, it can be seen that the text book contains activities in tune with constructivist approach.
- The content of almost all the units are suitable and sufficient to attain the learning outcomes.
- The content of almost all the units are suitable for activity based learning.
- Diversity of learning activities is ensured in almost all units
- All the units follow a child friendly approach with respect to the use of language.
- The pictures are not fully appropriate to the lessons. In some of the units, the pictures, graphs etc. are not sufficient or clear (Unit 1: need more clarity for the pictures of public spaces; Unit 4: the picture is not realistic. Pages 57, 60, 61).
- Some of the activities in the textbook need further explanation, elaboration and support (Unit 2: need worksheets after including the reading note related to hygiene; Unit 3: Infectious diseases, non-infectious diseases (Page 51) need more explanation).
- No need of simplification in any of the units but needs more clarity.
- The text book contains possibilities for continuous evaluation in connection with experiments, observation and other group activities.
- There is no possibility of any kind of discrimination while considering the lessons and learning activities throughout the textbook.
- There are enough slots for the development of democratic values in almost all the units
- The present layout is inadequate for making a qualitative impact on children's thoughts
- The teacher text is suitable for the transaction of all the units.
- The hints for ICT enabled learning are not included in the textbook. Activities adequate for acquiring the learning outcomes are less in environmental studies text book as it is in an integrated version.

Textbook Analysis - Mathematics

- All the lessons do not go in conformation with constructivism. Though learning activities suitable for construction of knowledge are given in general, some methods directly related to Math given in some units (Unit 5 and 6) are to be examined.
- The content is generally helpful for acquiring learning outcomes. Some ideas directly given in the text book are a barrier to awakening the thinking skills of the child.
- Almost all units contain activities suitable for acquiring processing skills.
- Diversity of learning activities is ensured in almost all units
- All the units follow a child friendly approach with respect to the use of language. The language used is appropriate for the lessons.
- The pictures used are appropriate for the lessons.
- The parts of lessons which need more elaboration are less.
- Most of the activities in the units are in the simplified form. But, in Unit 3, Nourishing Food Given in Aswin's school and the activity 'Egg and Milk Given to Children' should be simplified.
- Possibilities for continuous evaluations are there in the text book.
- There is no possibility of any kind of discrimination when considering the learning activities given in the lessons throughout the textbook.
- The text book has given only very little importance to the possibility of group activities.
- All the units invariably keep a student friendly layout
- Teacher text helps the teachers to plan the learning activities enabling the acquisition of processing skills and to take into consideration the learners of all levels.
- The overall result reveals that there is no drastic or vehement criticism against second standard Mathematics textbook.

Major findings derived from the analysis of responses of HM

- Great majority of the schools conduct SRG meetings more than once in a month.
- The main areas in which the head teachers had offered suggestions to teachers after going through teaching manuals of teachers, were -the learning activities to be given to students (96.11%), 'responses' (92.22%), learning materials and resources (89.44%), continuous evaluation (87.22%) and writing 'Qualitative notes (72.22%)
- Majority of the HM's experience (60.56%) 'some' difficulty in providing support for the development of arts, sports, health and work experience while 28.89% reported

that they feel 'very much' difficulty in providing support. The major areas in which the HMs face difficulties in providing support for the development of arts, sports, health and work experience, are financial aspects, locating experts and procuring the necessary infrastructure.

- Majority (62.22%) of the head teachers could conduct class observation only 'sometimes'-may be because they are busy with other official works at school and outside. Yet more than a third (35.56 %) of H.M.s reported that they 'always' conduct class observation and provide necessary suggestions
- It is found that 58.33% H.M.s always ensure that students attain learning outcomes whereas 38.89% sometimes do it.
- Majority of the H.M.s under study use the services of Experts (76.67%) and Local resources (63.89%). The various areas where the H.M.'s use the services of experts and local resources are, for giving experts' classes for teachers (37.78%); Awareness programs (33.33%). The other areas include Agriculture, Experts' classes for students, Interviews, Arts and sports, Health activities, Day celebrations, Field trips, Workshops, Parental help and support and Strengthening of PTA.
- HMs make use of the services of SMC/PTA/ MPTA /LSG in the following contexts - Re-opening festival (99.44%); Day celebration (90%); Festivals (Mela) (85.56%); Noon-Meal (84.44%); Anniversary (84.44%) and majority of them for Club activities (76.67%). The other contexts where the services of SMC/ PTA are availed are Field trips, Infrastructure, Awareness programmes, Agriculture, Celebrations, Health activities, Camps and Seminar Workshops.
- The services of the alumni of the school are availed by majority of the H.M.s for Anniversary (57.22%), whereas alumni support is also utilized for Re-opening festival (31.67%); Festivals (Mela) (31.67%); Day celebration (21.11%); Club activities (16.11%) and Noon-Meal (7.78%).
- Majority of the H.M.s (97.22%) ensure that teachers share ideas they receive from training programmes.
- HM.s (80%) organizes special classes for those who do not know how to read and write and who face difficulties in learning.
- The HMs reported that for gifted children, training for Competitive examinations (33.33%); Quiz and other competitions (22.22%); Library and extra reading materials

(21.67%); Special (Extra) training (16.67%); Encouragement (13.33%); Expert classes (7.78%).

- It is seen that 71.11 % of HMs reported that ISM team had not paid monitoring visit to their school. Out of those HMs who reported that ISM team had paid visit to their schools, 98.8 % reported that the ISM monitoring visit was effective.
- H.M.s reported that that they had received help and support from ISM team in the following ways:- Got directions for Quality improvement (19.61%) Started special training for backward students (19.61%); Pointed out the deficiencies (17.64%); Got directions for making classes effective (15.69%) Possibilities /Scope of TLM became clear (9.80%); Empowerment of Teachers (9.80%); Got directions for conducting SRGs effectively (7.84%).
- Suggestions offered by HMs for improvement of ISM are to be conducted in all classes in all the three terms, conduct follow-up Supervisions, linked with Clusters and Teacher trainings, include expert teachers and evaluation should be conducted after (outside) school hours
- Vast majority of H.M.s took initiative to carry out Cleanliness drive (89.44%) and Environment protection activities (83.33%) whereas Water resource management and Energy conservation activities were done by 29.44% and 23.89% respectively.

Analysis based on Focus group Discussion with AEOs

- Majority of the AEOs reported that they conduct monitoring of the academic activities and give support wherever and whenever needed. In addition to this they motivate teachers by appreciating their excellence.
- According to them majority of the teachers do not prepare teaching manual as envisaged in the teacher text. It is found that majority of the teachers feel difficulty in writing reflective notes and support is needed for
- Many of the teachers use teaching learning materials for making the classroom teaching effective. But some of the teachers are not even using the learning materials available in the school
- It is found that the major learning material used in the classroom is the textbook itself
- In more than half of the classes the teaching learning process takes place effectively. It is significant to note that certain classes are not at all effective.

- In majority of classes learning products are displayed. But only incertain schools the display of products are periodically updated. It is found that the majority of the teachers are not making use of these products later.
- Service of the teachers in a school is permitted for the smooth conduct of programmes like Youth festival and science fairs in other schools
- AEOs reported that during monitoring, they ensure whether due consideration is given to differently abled, slow learners, gifted students,
- Constant and continuous monitoring and support in organizing programmes and fairs related to art and physical education.
- AEOs reported that they give creative and valuable suggestions for the smooth conduct of PTA and SMC
- AEOs are involved in the programmes of village education committees actively
- All the AEOs reported that the internal Support Mission (ISM) visits were very much effective in enhancing the academic as well as administrative excellence.
- AEOs participate in the DRG training of the Cluster, and they monitor each cluster and make sure that the cluster is conducted as per the module
- The infrastructure facilities of the school as well as the classroom facilities are monitored and necessary suggestions are given for their improvement.
- AEOs ensure that the funds allotted to schools are properly utilized and the records are kept
- They monitor the noon meal programme and ensure that nutritious and hygienic food is given to the students without fail.
- Majority of the AEOs feel that team monitoring is more effective than individual monitoring as both administrative and academic aspects could be monitored within a single visits

Analysis based on Focus Group Discussion with PTA

- PTA Members reported that general body meeting will be conducted at the beginning of the academic year and executive committee meetings are conducted as and when required. Most of the executive members attend the executive meetings along with the teachers.
- MPTA and CPTA meetings are conducted for ensuring the security, quality of noon meal and to provide suggestions for academic improvement.

- It is reported that the facilities such as classrooms, toilets, differently abled are available in most of the schools.
- Regarding the revised textbook, they reported that the text books are learner friendly, attractive and suitable for intellectual level to a certain extent. The activities included in the text book are learner friendly and practicable.
- They are unaware of the learning outcomes.
- No support is rendered by PTA for the CWSN students, but renders services to solve problems, if any.
- PTA plays an important role in the availability and utilization of funds.

Difficulties experienced reported by teachers while implementing the curriculum

- The difficulties reported by the teachers for attaining all learning outcomes are lack of time, excess content, day celebration and co-curricular activities, involvement of teachers in duties other than class room teaching, excess activities and presence of different level of learners. Some other areas are higher level of the content, difficult vocabulary and language ambiguity, lack of appropriate activities for differently abled students, insufficient extended activities for enhancing creativity, inaccessible links and hints and lack of resources and lack of slots to make use of local resources, library and laboratory.
- The difficulties with respect to art education pointed out by teachers are lack of special teachers to deal with art, lack of training, lack of time, lack of financial support, lack of materials and opposition from certain religions section. The suggestions given by the teachers for overcoming these limitations are to appoint specialized teachers for art. to provide support from LSG and to conduct training programmes for other subject teachers to equip them to handle Art classes.
- Some of the teachers experienced difficulties in using the strategies such as Investigative learning, metacognition and critical thinking.
- ‘Lack of time’ and ‘Lack of facilities/materials’ were the major difficulties mentioned by the teachers to make use of appropriate learning strategies. The other genuine difficulties reported by teachers are in considering backward learners .
- Difficulties reported by teachers in the implementation of learning activities to enrich the abilities of gifted learners are difficulty in planning challenging learning activities and Lack of time.

- The difficulty faced by the teachers to carry out learning process and evaluation simultaneously is lack of proper planning. The other difficulties reported are giving more emphasis to learning process than evaluation and lack of awareness about suitable strategies.
- The practical difficulties mentioned by teachers in the recording of continuous evaluation are lack of sufficient time, excess number of students, lack of timely availability of records, complexity in recording and lack of awareness of recording procedure. The other difficulties reported are inadequate evaluation strategies, difficulty in grading and difficulty in recording, in framing questions suiting different level of learners, lack of time, over loaded content and abundance of students.

Suggestions

The following are the suggestions derived from the study.

Learning outcome

- Provide more clarity to the teachers regarding the characteristic features of the learning outcomes envisaged in the curriculum 2013.
- Simplification of the content, Special Training to teachers and provision for extended activities are the suggestions given by the teachers of class II to achieve the expected learning outcomes.
- Strengthen the training by emphasizing the ideas/skills to be acquired from each unit through the learning outcomes.

Learning resources

- Teachers (57.49%) of second standard opined that activities considering different levels of learners are not present in the text book. Provide the activities considering different levels of learners.
- Resource teachers mainly provide help in the adaptation of CWSN, so ensure the authorities the service of resource teachers in all needed schools.
- Teaching learning resources in the area of art, sports and health and work experience are present in the TT only to some extent level.
- Provide resource persons with the co-operation of local bodies; appoint special teachers for sports and ensure regular service of health workers/nurses in schools are

the suggestions given by the teachers to overcome the limitation of sports and health education.

- Provide special teachers for art education in each school or clubbing the schools are the suggestions given by the teachers to solve the difficulty faced by the teachers in art education.
- Teachers suggested for providing training to teachers at the beginning of academic year in transacting activities related to work experience.

Learning process

- Half of the teachers of class II experienced difficulties while planning learning activities. It necessitates the intensive training especially thrust areas like Life skills, Continuous evaluation, Community bound activities, Values/attitudes, and utilizing learning resources.
- Limit the classroom strength and provide specially prepared learning materials to overcome the constraints of slow learners and gifted learners.

Evaluation

- Provide more clarity regarding Continuous Evaluation especially Assessment of Learning Process, Portfolio Assessment, Recording and Unit Assessment.
- Provide learning activities which can be executed in the classroom to ensure learning and providing support to learners while carrying out learning process and continuous evaluation simultaneously.
- The result of the study shows that teachers were not preparing indicators for evaluation. So provide proper indicators related to different areas of evaluation.
- Give emphasis in Training on various strategies suitable for remedial teaching based on feedback from Continuous Evaluation of second standard.
- Frame the different Continuous Evaluation strategies for CWSN learners.
- Provide training to teachers for conducting evaluation related to arts, sports and work experience and socio-emotional areas.

Subject specific analysis: Integration

- Teachers opined that there are learning materials / learning ideas in Class two that have difficulty in transacting through integration. So provide necessary instructions to conduct learning activities by integrating subjects as well as arts-sports-health and work-experience.

- Teachers opined that they were facing difficulty while transacting discourses through Group work, Presentation, Model presentation, Editing and Evaluation. Make necessary steps to overcome these difficulties.

Adequate resources in the text book

Mathematics

- Abstract mathematical ideas and too much work sheet make the learning process more difficult, it necessitates the simplification of abstract mathematics.

Answer sheet analysis: Malayalam

Even though the learners of second standard show ability in oral communication, they show average standard in written communication. So, more activities should be given to reinforce letters and signs.

Answer sheet analysis: Environment science

Learners maintain an average level in the skills for observation, outdoor learning and formulation of inference. Answer sheet analysis revealed that this may be due to lack of written communication, firsthand experience in the class room and similar activities. So provide necessary steps to improve language skills, firsthand experience in the class room, etc.

Textbook Analysis - English

- Make sure that all the lessons are suitable for constructivism.
- The vastness of the content hinders proper transaction. The language used is not up to the level of standard 2 learners.
- Ample opportunities for process oriented learning like choreography, enactment of skit, role-play are given in the text book.
- Provide variety of activities in the text book.
- With respect to the use of language, all the units follow learner friendly approach, but the vocabulary used in the text is quite unfamiliar.
- Make use of familiar vocabulary and make sure the pictures are attractive and clear.
- Clarity and explanation needed in the lessons of text. Provide slots ensuring evaluation in each unit.
- Make the layout of the text book child friendly and attractive.
- More performance based activities should be ensured in English class rooms. And the reader should include more worksheets based on games.
- Give short and simple stories in all the units.

Textbook Analysis - Environmental Studies

- Provide pictures fully appropriate and realistic to the lessons.
- Some of the activities in the textbook need further explanation, elaboration, more clarity and support.
- Provide adequate layout for making a qualitative impact on children's thoughts
- Include hints for ICT enabled learning in the textbook.
- The hints of lessons where ICT enabled learning is possible can be included in the T.T.

Textbook Analysis - Mathematics

- All the lessons do not go in conformation with constructivism. Provide learning activities suitable for construction of knowledge.
- In Unit 3, Nourishing Food Given in Aswin's school and the activity 'Egg and Milk Given to Children' is to be simplified.
- Provide much importance to the possibility of group activities.
- It'd be better to give activities for the same learning outcomes continuously in one unit for the proper development of processing skills. E.g. In order to enforce the idea of addition in the child in different ways, it can be limited to one or two units. The lessons like Place Value, Practical Issues, etc. which needs rearrangement and everything else related to addition can be included in one unit.

Conclusion

From the findings it can be concluded that the teachers participating in this study were generally in favour of the new curriculum. According to the teachers the structure and organization of the new curriculum at Primary level shows that they find the goals of the curriculum appropriate for primary education. The curriculum content was selected and organized appropriately to the level of learners: they agreed that the suggested experiments, field trips, observations, projects and instructional materials in the curriculum were adequate and appropriate to a great extent. The teachers reported that the suggested teaching and learning activities in the curriculum helped them during teaching-learning process. Textbooks are prepared in tune with the curriculum, but to be revised timely. The study revealed that students' active participation and interest in the subject matter has increased with the new curriculum. The curriculum content has a good sequence and that the subject matter is related to real life issues. However, it is found that subject matter is too detailed that orient students to rote learning especially in Social Science. They also think that the time allocated for the loaded curriculum content is not enough to carry out

intended curriculum tasks. Although the teachers seemed to approve the major aspects of the new curriculum in general, there were some differences in the ways of transaction due to certain constraints like lack of time, overloaded content and lack of facilities. Although certain teachers seemed to use instructional technology, field trips and observations more often, it was observed that these teaching methods and techniques were rarely or never used during instruction in general. Although the instructional materials used by these teachers show variety (written materials, examples and models, diagrams and graphs, living things, etc.), the findings of this study show that written materials and text book were the most commonly used instructional materials in classes. Even though there is provision for the use of ICT materials in learning process, majority of teachers are not using ICT facilities. Since the physical structure and facilities of the schools emerged as one of the major factors constraining the implementation process of the new primary curriculum, the first focus is to be given to facilities, resources & materials and existing and emerging technologies. In order to use inquiry-based practices, teachers should be supported with rich and satisfactory facilities and resources. However, the results of this study show that teachers working in different schools do not have access to the same satisfactory conditions to use the desired implementation tasks in their classrooms. Situation is far from ideal in many schools trying to implement the new curriculum in the way it is intended.

It is seen that the findings of this study can be used to help curriculum developers in planning strategies for improving the present Primary school curriculum. Findings were varied in relation to parents' involvement in supporting the implementation of the curriculum and in their active participation in school. It was found that effective consultation and parental involvement to enhance their children's learning is being encouraged. Textbooks exert a dominant influence on teaching and learning in a significant number of classrooms. Also the teacher text is suitable for transaction of all units. There was an overdependence on text book and workbook activities, which often resulted in pupils engaging in unchallenging and repetitive tasks. There was little emphasis on the development of higher-order thinking skills, on nurturing pupils' creativity, or on encouraging pupils to respond emotionally and imaginatively. The findings suggest strongly that teachers require additional supports to broaden their teaching strategies and approaches and to further focus on the process approach. There is a need for additional guidance for schools on how to adapt the curriculum to meet the diverse needs of learners.

It is serious to consider the instruction and evaluation of Arts, Physical and Health Education and Work experience. Serious improvement is needed in these areas. Most schools had not developed whole-school plans for assessment. Monitoring is made by AEOs, but needs effective feedback and follow up. Although the teachers moderately or fully approved many characteristics of the new curriculum at primary level, they pointed to make necessary changes for the language and subject curriculum.

The learners of second standard show ability in oral communication, but they show average standard in written communication. So, more activities should be given to reinforce letters and signs. Learners maintain an average level in the skills for observation and formulation of inference. Answer sheet analysis revealed that this may be due to lack of written communication, firsthand experience in the class room and similar activities. So provide necessary steps to improve language skills and firsthand experience in the class room. The study highlighted the need for simplified and reorganized curriculum for the attainment of full vision of the constructivist approach. Working together and sharing ideas and experiences help teachers implement the curriculum more successfully.

**AN ASSESSMENT OF THE IMPLEMENTATION OF
KERALA CURRICULUM 2013 AT PRIMARY
LEVEL: STANDARD IV**



**State Council of Educational Research and Training (SCERT),
Poojappura, Thiruvananthapuram, Kerala**

March 2017

**AN ASSESSMENT OF THE IMPLEMENTATION OF
KERALA CURRICULUM 2013 AT PRIMARY
LEVEL: STANDARD IV**



Conducted by

Department of Research, Documentation & Dissemination

State Council of Educational Research and Training (SCERT), Kerala

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Preface

The study entitled “An Assessment of the Implementation of Kerala Curriculum 2013 at Primary Level: Standard II” is aimed to determine how the new Kerala Primary school curriculum(standard II) is implemented in classes and to identify the factors influencing its implementation. The necessary data were collected using the tools and techniques prepared by a team of experts and teachers under the leadership of SCERT faculty.

Great effort was taken to collect, compile, classify and analyse data in order to arrive at proper findings and conclusions. The study helps us to visualize how curriculum developers’ decisions are interpreted and practiced by teachers in classrooms. The rich information collected through the survey questionnaire also helps us to identify the forces applying to the process of implementation. In turn what does or does not get implemented in the curriculum can be determined and the reasons for the differences between intended and implemented curricula can be recognized. It helps us to comprehend the process of, and the problems experienced during curriculum implementation in our state. This study also helps to identify the practical problems faced by teachers. The findings of this study can help teachers to improve their performance and instructional practices.

Hope that this study will provide valuable information in turn can help teachers, curriculum planners, authorities and decision makers to develop better-designed materials and make further progress in the curriculum design during every curriculum restructuring and reification.

I owe my sincere gratitude to all involved in the study without which this research study would not have been a grand success.

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**ASSESSMENT OF THE IMPLEMENTATION OF
KERALA CURRICULUM 2013 AT PRIMARY
LEVEL: STANDARD IV**

EXECUTIVE SUMMARY

Introduction

The prime objective of education is the socialization of human beings and the school is the pivotal agency to organize and transmit all the cultural and social values to individuals. Curriculum is the most effective tool to disseminate all these values to the society and individuals. To assess a curriculum a breathless effort is needed. Assessment of the process of curriculum development plays a vital role in channelizing and keeping the direction of young generation on the desired way for the achievement of national objectives and keeping the system update with respect to the changing scenario of time. Curriculum development process also undergoes transformation due to newer developments in education and its evaluation keeps it valid, reliable and keeps it in the right direction. Recommendations through evaluation for any process have a message of eternity for it. Therefore the curriculum development process is organized in such a way to prepare young men and women for pursuing higher education and also to make them able to adjust with their practical life meaningfully and productively. The goals of education can be attained only through valid reliable curriculum and proper evaluation process for updating and fulfilling required social needs.

Current reconceptualization of curricular frameworks place the curriculum content in more ecologically valid contexts, making it more inquiry based, and urging the adoption of outcomes assessment measures which tap students' abilities to engage in activities rather than test their abilities to regurgitate rote learnt facts. Such reconceptualization also place greater emphasis on the need to develop students' critical thinking and problem solving skills so that they will be prepared for the challenges and opportunities of the new millennium. With the aim of maximizing the efforts to bring about the proposed curricular reforms and to increase the success of the curriculum implementation process, there arises the need to make careful descriptions of what transpires in classrooms on a daily basis and why this happens. This will allow educationalists to find ways to support teachers, as they are required to adopt retooled and reformed curricula. If this is not done, teachers will continue with their routines: their previous experiences, what has worked in the past. As a result, change does not occur and the implementation of a new curriculum does not conform to the curriculum intended by the curriculum designers.

The Kerala Curriculum Framework, adopted in 2007 (KCF 2007), was recognized by far and wide, as it was an exemplarily, modified and progressive document that the state had to offer. KCF 2007 is apt for the present Kerala social and educational scenario, after the National Curriculum framework (NCF 2005) guidelines laid down by the NCERT. The Curriculum developed on the basis of KCF 2007 –from the primary to the higher secondary level - which thrusts the philosophical and psychological premises of Social Constructivism, Critical Pedagogy, Multiple and Emotional intelligences, Inclusion in Education, etc., and also it is stressed on the ‘Mental process of the learners.

Primary school curriculum was always considered as the cornerstone of any educational progress because it had direct influence on the ‘making’ process of the learner. The Right of Children to Free and Compulsory Education Act (RTE Act, 2009/2010) underlines the important aspects of the primary school curriculum. The Primary School curriculum in Kerala after curricular revision of KCF 2007 already had conformed to these aspects.

Curriculum evaluation is an essential phase in the development of a progressive curriculum. Curriculum development is an evolving process which makes curriculum suitable to the individual and social needs as well as the goals of the nation. Curriculum at school education revises in Kerala after every five years. The curriculum and textbook prepared as per the Kerala Curriculum Framework (KCF, 2007) has been reviewed by an expert committee appointed by the Government of Kerala and an approach paper is also developed to change the curriculum and textbooks of School education in Kerala. As a result the text book of class I, III, V, VII, XI were revised in the academic year 2014-15. The text books of class II, IV, VI, VIII, and XII revised in 2015-16 and textbook of class IX and X revised in 2016-17 academic years. A status survey at higher secondary level and a baseline study at primary and secondary levels have been conducted during this period.

The present study is conducted after the implementation of current cycle of curriculum development. The investigation covers Standard 4 on the subjects such as English, Malayalam, Mathematics and Environmental Science. The study focused on five major dimensions of curriculum, i.e., learning outcomes, learning resources and materials, learning process, evaluation system and teacher support mechanisms. Data were collected from the different stakeholders of educational system including students, teachers, parents, and heads of institutions, AEOs and members of the local bodies. Concurrent review and assessment of the Curriculum being followed would help to assess the merits and demerits of the existing curriculum as well as to offer suggestions to implement it in a better manner

or to fill the gap, if any. Review of the curriculum is to evaluate its effectiveness after it has been implemented and reflect on what students, teachers and the society did and did not get out of it. Hence, the study, An Assessment of Kerala Curriculum at Primary Level

The study was carried out by considering the following objectives:

Objectives

- To assess the Revised Kerala curriculum (Class- IV) with respect to
 - i. Learning Outcomes
 - ii. Learning Resources
 - iii. Learning Process
 - iv. Support System
 - v. Evaluation
- To find out the practical difficulties encountered by teachers in implementing the revised curriculum.
- To suggest measures for making further revision effective.

Methodology

Method

Survey method and Document analysis are the major methods used for collecting data for the present study.

Sample of the study

The present study was conducted in Class IV of six Revenue districts (Thiruvananthapuram, Idukki, Palakkad, Ernakulam, Malappuram, and Kannur). From each Revenue district, two sub districts were selected for the collection of data. The sub districts selected were: Thiruvananthapuram South and Attingal from Thiruvananthapuram district, Munnar and Arakkulam from Idukki District, Ernakulam and Thrippunithura from Ernakulam District, Mannarkkad and Ottappalam from Palakkad district, Panoor and Iritty from Kannur district and Parappanangady and Vengara from Malappuram district. The sample for the study consisted of 12 AEOs (2 AEOs from each Revenue District), 180 Headmasters/ Headmistresses (15 Headmasters from each sub district) and 720 Primary school teachers (60 teachers from each sub district).

Tools and techniques used for the Study:

The major tools and techniques used for the study were:

1. **Questionnaire for teachers (General as well as specific questionnaire for teachers)**
2. **Questionnaire for head teachers**
3. **Answer sheet analysis – Error analysis**
4. **Text book analysis (Integration, English and Mathematics of Standard II)**
5. **Class Observation Schedule**
6. **Group discussion schedule for Students, AEO and PTA**

Description of the tools and Techniques

Questionnaire for teachers

General as well as specific questionnaires were given to fourth standard school teachers. The questionnaires contain both closed and open ended questions. The questionnaires are used to collect views and suggestions of teachers regarding assessment of Revised Kerala curriculum (Malayalam, English, Mathematics and Environmental Science) with respect to its Learning Outcomes, Learning Resources, Learning Process, Evaluation and Support System. Moreover, the practical difficulties encountered by teachers in implementing the revised curriculum and their suggestions regarding different measures for making further revision of the curriculum more effective were also collected by using the questionnaire for teachers.

Questionnaire for Head Teachers

A questionnaire was prepared to collect data from Head teachers to assess the different aspects of revised curriculum such as learning outcomes, learning resources, learning process, support system and evaluation. The questionnaire include questions related to whether they are checking the teaching manual of teachers, what are the difficulties they are experiencing in giving supports to different areas of Art, Physical Education-Health and work experience, whether they are getting support from different agencies such as SMC/PTA, MPTA, LSG, ALUMNI.etc., whether the teachers are sharing the experiences they gained during different training, what are the measures they

are taken to provide support to backward and gifted students, what are the different community activities conducted in school to improve teaching and learning.

Text Book Analysis (Malayalam, English, Mathematics and EVS of Standard IV)

Text book analysis was done to find out whether the text books (Malayalam, English, Mathematics and EVS of Standard IV) are in conformation with the constructivist paradigm, suitability of its content in attaining learning outcomes, suitability of the content for activity based learning, whether the books contain diversity of learning activities, use child friendly language, have clarity in pictures, graphs and maps, slots for continuous evaluation, instances of disparity and what are the different areas which need further simplified explanation.

Class Observation Schedule

The class observation schedule was designed as an analytical device to observe and gather factual information regarding the performance of teachers with regard to the components such as Teaching Manual preparation, pre-planning, interest and motivation, learning activities, learning environment, classroom intervention, evaluation and consolidation.

Focus Group Discussion

Focus Group Discussion points were prepared carefully in advance through identifying the main objective(s) of the meeting, developing key questions, developing an agenda, and planning how to record the session. A detailed report is prepared after the session was finished. Observations during the session were noted and included in the report.

Answer sheet analysis (Error analysis)

Answer sheets of the fourth standard students of all subjects were collected from selected schools. It was reevaluated by considering the learning outcomes stated in the text book and activities given in the worksheet. Analysis was done for all the subjects Malayalam, English, Mathematics and Environment Science separately.

Data Collection Procedure

Data collection was done by a group of six members in each education sub-districts under the leadership of concerned AEOs and faculty members of DIET. A one day workshop was conducted at SCERT for the members of data collection in order to familiarise the tools.

A one day meeting of HMs of 15 schools was conducted by AEO for collecting data from HMs using the questionnaire. For the collection of data from other sources a team was constituted. The team consists of practising teachers in the subjects of Malayalam, English, Environmental science and Mathematics including AEO and DIET faculty members. They visited various schools for collecting data from the teachers, conducted group discussion with PTA/LSG and observed the classrooms.

Questionnaire for teachers and HMs, were administered in 12 sub districts of six Revenue districts (Thiruvananthapuram, Idukki, Palakkad, Ernakulam, Malappuram, and Kannur) and their responses were collected back. The data thus obtained were scrutinised and only those found complete and correct with respect of all the necessary information above were chosen for analysis. For conducting error analysis, question papers and answer scripts from selected schools were collected and analysed using certain criteria. Desk analysis of textbooks was also conducted by using the expertise of practicing teachers. They were invited to SCERT and a format had been given to them and they noted their observations based on the criteria. These observations were then consolidated.

A series of workshops were conducted for analysing data, tabulation of data and report writing.

Statistical Technique Used

The statistical technique used for the analysis of data was Percentage Analysis.

Findings and Suggestions of the Study

The aim of the present study is to assess the implemented curriculum in Standard IV of Kerala State. This part presents the major findings derived from the study based on the data collected using various tools and techniques. Data were collected from the teachers, Headmasters, students, PTA/LSG members and AEOs and each was analyzed separately. Classroom observations were also conducted using an observation schedule. An in-depth analysis of Textbook(TB), Teacher Text (TT) and errors committed by learners in the answer scripts were also made.

The data thus collected were analyzed and findings derived are presented under appropriate heads:

A. Findings based on Learning Outcomes

- The study revealed that the characteristic features of the learning outcomes envisaged in the curriculum 2013 were clear to majority of teachers (79.41%). But it is noted that the remaining teachers (20.65%) need more clarity regarding the features of learning outcome like short term and long term outcomes, outcomes attained through process oriented learning, learning outcomes that develop values, attitudes, and social commitment and that can be developed through collaborative learning.
- Majority of the teachers (83.53%) were of the opinion that learners couldn't achieve the expected learning outcomes to be aimed through the transaction of the content whereonly a considerable percentage (16.47%) are of the opinion that the learners could achieve the same.
- It is found that majority (72.35%) of teachers couldn't differentiate between short term and long term learning outcomes. Only 27.65% of teachers were able to differentiate it.
- Majority of the teachers (88.82%) opined that the learning outcomes are arranged in such a way as to ensure the continuity and development of it from the lower to higher classes, but a considerable percentage (11.18%) has a difference in opinion in this regard.
- Major percentage of teachers (86.47%) agreed that the outcomes given in different units are observable and measurable but 13.53% of teachers disagreed to it.
- It is inferred that 27.06% of the teachers were able to understand the ideas/skills acquired from each unit of the text book through the learning outcomes to some extent level only. But majority (72.94%) of teachers was able to understand the ideas/skills to a great extent level.
- It is found that for 51.18% of teachers the distribution of learning outcomes in different units of Class IV are according to the level of the learners to some extent level only. But 48.82% agreed to large extent level that the distribution of learning outcomes is given according to the level of the learners.

- A considerable percentage (57.65%) of teachers reported that learning outcomes are helpful for self-evaluation to some extent level only whereas 42.35% of teachers reported it to a great extent level.
- Majority of the teachers (64.71%) found difficulty in the time bound completion of learning outcomes but 35.29% of teachers disagreed to this.
- Even though majority of teachers (88.82%) opined that the outcome focused methodology is helpful in ensuring the attainment of level of learning envisaged by RTE, 11.18% of teachers did not agree to it.

B. Findings based on Learning Resources

- It is observed that majority of teachers (82-94%) agreed with most of the characteristics of the textbook like content appropriateness, conceptual clarity, adequacy of activities, opportunity to foster the creativity, language appropriateness, pictures, lay-out, etc. But, 43.53% of teachers opined that activities considering different levels of learners are not present in the text book, language is not appropriate to the level of the learners (17.06%), content is not appropriate to the level of the learners (15.88%), adequate learning activities are not given in the textbook to achieve the learning outcomes (15.29%), follow up activities mentioned are inadequate (11.76%), concepts are not arranged spirally (12.94%) and slots of ICT are not given for effective learning (11.18%).
- It is found that 63.53% teachers the division of periods given in Teacher Text is not suitable for its transaction. Majority of teachers (81- 93%) supported the Teacher Text of Standard IV in many aspects like complementary nature of Textbook and Teacher Text, suitability of hints, adequacy if additional information provided, specific instructions in TE and CE, suitable tools for evaluation, clarity given for right-based education envisaged by RTE Act, and clarity in professional ethics to be practiced by teachers.
- A significant percentage of teachers (12.35%) opined that Teacher Text is not helpful in preparing TM while 13.53% opined that reference books and different web sites given in the Teacher Text are not helpful for the transaction of lessons.
- The facilities pointed out by majority of teachers (50-90%) are reading corners, ICT facilities, display boards, science club, science lab, Mathematics

club, Mathematics corner, Science corner, Science lab, language lab and reading corner. The facilities such as Social Science Corner, Social Science Club, Social Science lab and Mathematics lab are reported by below 50% of the teachers.

- It is found that 40-49% of teachers reported that the content in the Textbook of class IV has given emphasis to facilities like library, ICT, display board, periodicals and subject corners to some extent level.
- About 24-25% of the teachers reported that instructions provided in the TT to utilize ICT, library and lab are only to some extent level whereas, 38-47% teachers reported that necessary instructions are provided in TT to utilize facilities such as Display board, Periodicals Club and corner to a great extent level.
- It is found that only 33-48% of teachers use the facilities such as lab, library, ICT, Display board, Magazine, Club and Corner to some extent level for providing learning activities to students.
- Majority of teachers use a variety of materials like pictures (92.35%), materials prepared by themselves (91.76%), worksheets (84.71%) and tables (87.65%) other than TT and TB for teaching and learning.
- Additional materials used by teachers to ensure learning outcomes are: magazines, field trips, paper cutting, and daily news quiz.
- Majority of the teachers (64.71%) were of the opinion that resource teachers mainly provide help in the adaptation of CWSN. But 52-61% of teachers opined that Textbooks and Teacher Texts are helpful in the adaptation and 60.59% agreed with the adequacy of infrastructure in this regard.
- It is found that suitable situations for transaction are given in the Textbook with regard to Arts (68.10%), Health (42.94%), and Work Experience (63.19%) to a great extent level. It can be observed that instructions are there to frame necessary resources in the TT to a great extent level in Arts (65.03%), Health (44.17%) and Work Experience (58.28%). The school is equipped to carry out activities to some extent level related to Arts (71.78%), Health (60.74%) and Work experience (54.60%). Teachers are able to make available local resources to some extent level in these areas related to Arts (55.83%), Health (52.76%) and Work Experience (50.31%). They are able to

make use of teacher text to some extent level in the areas related to Arts (46.01%), Health (49.69%) and Work Experience (46.63%). Teachers are able to make use of activity books to some extent level in the areas related to Arts (49.69%), Health (46.01%) and Work Experience (45.40%).

- Majority of the teachers evaluate the products (91.76%), encourage the outstanding products (93.53%) and utilize the chance for the reuse of the products (85.29%). Only 5.88% of teachers are not utilizing the chance for the re-use of the products and 2.35% of teachers do not evaluate the products.
- Majority of teachers exhibit the learner's products in the class (94.71%), in CPTA (64.12%), and in fares (61.76%).

C. Findings based on Learning Process

- The study revealed that 59.41% of teachers face difficulty while planning the learning activities.
- Although the teachers experienced difficulty in various thrust areas, 'Learning of the different levels of learners' (59.41%), and 'Integrating Arts, Physical Education, Health and Work Experience' (44.12%) are two major thrust areas that posed difficulty to majority of teachers while planning the learning activities.
- Majority of teachers (83.53%) were not able to ensure the development of process skills in learners through learning process.
- It is noted that a significant percentage (12.35%) of teachers couldn't plan the learning process in such a way as to get clarity of the content through multisensory experience, but majority of teachers (87.65%) could.
- A significant percentage (12.35%) of teachers opined that the curriculum is not appropriate in enabling learners to apply the knowledge acquired through learning process in their daily life whereas a majority of teachers (87.65%) could.
- Majority of teachers (88.24%) were able to use appropriate learning strategies to the content whereas 11.76% of teachers were not able to make use of the learning strategies appropriate to the content. For these teachers, learning strategies like Investigative learning and Meta cognition were found to be the most difficult strategies. They felt less difficulty in adopting Collaborative learning.

- ‘Lack of time’ (73.53%) and ‘Lack of facilities/materials’ (40%) were the major reasons reported by the teachers in making use of appropriate learning strategy.
- It is noted that 57.06% of the teachers could not plan and implement the learning activities to overcome the constraints of the slow learners. Lack of specially prepared learning materials, lack of time to plan and implement the activities for different levels of learners and lack of time were the major reasons of difficulty that were mentioned by 27-37% of teachers .
- Majority of the teachers (70.59%) were not able to ensure the attainment of learning outcomes in different level of learners.
- A significant percentage (24.12%) of teachers couldn’t implement learning activities to enrich the abilities of gifted learners though majority of the teachers (75.88%) were able to do so.
- Majority of teachers (71.76%) ensured the maximum participation of all learners sometimes only and 28.24% of teachers always ensured full learner participation.
- It is noted that 45.88% of the teachers were able to transact the content in a learner friendly manner sometimes only while 54.12% teachers were able to transact the content in a learner friendly manner.

D. Findings based on Evaluation

- It is seen that a significant percentage, 17.06% of teachers did not get a clear idea about continuous evaluation. But majority of teachers (82.94%) have clarity in it. It is found that teachers need clarity in assessment of learning process (11.76%) and in Port-folio assessment (4.12%).
- It is found that about 40% of teachers are not able to ensure learning and to provide support to learners though CE whereas 60.59% were able to ensure it.
- About 31.76% of teachers were not able to carry out learning process and evaluation simultaneously but majority of teachers (68.24%) are able to undertake the task successfully.
- A considerable percentage of teachers (20.59%) reported that the indicators related to different areas of evaluation are not specific. Very few teachers reported that they need clarity in Assessment of Learning Process (14.12%).

- It is found that 57.06 % of the teachers faced lack of time as the problem faced in evaluation while 37.65% reported that the difficulty is because of the overcrowded classroom.
- Majority of the teachers provide opportunities for self-assessment (87.65%) and peer assessment (82.35%). At the same time, it is found that a significant percentage does not provide opportunity for self-assessment (12.35%) and peer assessment (17.65%).
- It is found that 6.47% of teachers were not concerned with preparation of indicators for evaluation by learners. But majority of teachers (58.24%) used indicators developed in classroom discussions.
- It is significant to note that even though majority of teachers (87.65%) are providing opportunities to learn to present their products related to self-evaluation and peer evaluation while a significant number of teachers (12.35%) are not providing it at all.
- Majority of the teachers (80%) reported that they made suitable changes in the classroom process considering the learners evaluation whereas a significant percentage (20%) did not make any changes in the classroom process.
- It is found that class test and quiz are found to be the most popular tools used by teachers (71.18%) for unit evaluation. Along with open book test (24.12%), teachers use variety of evaluation tools/ techniques like seminars, work sheets, creative writing and collections.
- Majority of teachers (72-92%) are considering different records such as Notebook, Worksheets, Project/seminar report, answer scripts, short notes, creative writings and assignment for continuous evaluation.
- Majority of teachers are giving feedback for learners (92.35%) based on CE while 82.94% of teachers are giving feedback for parents. It is to be noted that 7.65 % of teachers are not giving feedback for learners.
- It is significant to note that even though majority of teachers (87.65%) are providing remedial instruction based on feedback from Continuous Evaluation, significant percentage of teachers (12.35%) are not providing remedial instruction for learners and parents.
- Majority of teachers reported that they give scaffolding (61.18%) and follow up activities (64.71%) as part of remedial teaching. It is found that teachers are giving

importance to strategies like changing process (45.29%) and peer tutoring (39.41%) as part of remedial teaching.

- Even though majority of teachers (65.88%) accurately recorded the details of continuous evaluation, it is significant to note that 34.12% of teachers did not accurately record.
- It is found that half percentage of teachers is framing different strategies for CWSN learners whereas another half percentage of teachers are not framing different strategies for CWSN learners.
- The special strategies adopted by teachers are providing activities using pictures (completing, labeling, coloring, etc.), activities which cater their interest, multidimensional activities, evaluating special abilities, easy and simple activities, simplified evaluation indicators, activities using multimedia, oral test and framing special modules.
- Majority of teachers (84.12%) reported that they have a clear awareness about Term Evaluation to a great extent level. At the same time 75.29% of teachers reported that tools for TE are suitable for evaluating the learning outcomes to a great extent level while 68.24% opined that Term Evaluation includes variety of questions which give emphasis to thinking skills to a great extent level. Regarding the statements related to term evaluation it is noteworthy that more than 30% of teachers opined that they include variety of questions which give emphasis to thinking skills are adequate only to some extent level and 24.71% of teachers opined that the tools adopted for Term Evaluation are adequate for evaluating learning outcomes to some extent level.
- Even though majority of teachers (82.35%) are not facing any difficulties related to TE, a significant number of teachers (17.65%) have difficulties related to TE. It is found that a few teachers reported that they experienced difficulties related to Term Evaluation. The difficulties reported are: inadequate evaluation strategies (18.99%) and difficulty in grading (23.42%).
- It is noted that 52.35% of teachers are not properly conducting evaluation related to Arts, Physical Education and Work Experience.
- It is important to note that a significant number (60-90%) of teachers are carrying out evaluation and recording of socio-emotional areas like intrapersonal skill, decision making, self-awareness, empathy and communication skill

whereas,evaluation and recording in areas like , coping with stress and critical thinking are done only by nearly 40% of the teachers.

E. Findings based on Support system

- A great majority of teachers (97%)received support from HMs and BRC. Majority of the teachers (70-90%) received support from, SMC / PTA, MPTA, SSA, SSG, DIET, Clubs, SCERT and ISM. Support from LSG was reported by 49.08% of teachers. Only 20% of teachers received support from Alumni, SPC and NGOs.
- 50-60% of teachers reported thatonly less support is attained in the areas to enhance the emotional stability of children, awareness against abuses, awareness against crimes, water literacy and right based education whereas majority of the teachers (70-95%)opined that they got support in the areas of academic ,Grants, Child friendly environment, Environmental awareness, Waste management and Health and Physical education,to ensure child's right, support for assessment (CE & TE) , nurture life skills in children, and Values/Attitudes.
- Majority (73.62%) of the teachers agreed that self-improvement using feedback was done on the basis of monitoring.
- Majority of the teachers (98.16%) agreed that self-academic improvement was done on the basis of the feedback.
- Even though majority of the teachers (95.09%) agreed that follow up activitywascarried out based on monitoring whereas, 4.91% of teachers disagreed. Since monitoring and feedback are expected to be done by all teachers it is to be considered seriously.
- From the analysis it is found that many of theteachers did not getclarity inareas of Art and Work Experience Education (59.51%), Inclusive Education (53.37%) and Guidance and Counseling (39.26%).
- It is found that great majority of the teachers(74-94%) got clarity inthe areas like Teaching learning strategies , Learning outcomes , CE/TE and Content , Products , Learning resources and ICT .
- It is noted that for 46.63% of teachers the training was helpful in transacting the lessons fruitfully to some extent level only whereas for 47.87% of teachers, the training was helpful to great extent level.

Findings based on the Adequacy of Resources in the Textbook: Language

- Majority of teachers (76-92%) reported that the provisions /resources for story writing, narration, appreciation, recitation, versification, conversation, description, title writing and story given in the text book are adequate for fostering literary aptitude among learners.
- A great majority of teachers (80%-92%) reported that writing footnotes, writing competition and composition description given in the text book are suitable for providing opportunity for creative writing, while 50% of the teachers reported that activities like poetry completion, picture story and reading picture suitable for creative writing are to be included in the text book.
- As reported by the teachers, the major activities used in the Textbook for acquiring language skills are role play (88.34%), recitation (87.12%), Picture drawing/painting (87.12%), Coloring (86.50%), Miming (83.44%)story telling (71.17%)and choreography (60.74%)
- Majority of the teachers (86.50%) reported that the Teacher Text is adequate for effective transaction of the concepts given in the Text book whereas negligible proportion of teachers responded negatively.
- Majority of the teachers use various techniques like club activities (79.14%), newspapers (67.48%) and language lab (65.64%) for acquiring language skills. Only 35% of them make use of the school assembly for this purpose.
- It is noted that 49.08%of teachers found difficulty while transacting discourses in the classrooms whereas 59.92% of teachers reported that they did not find any difficulty.

Findings based on the Adequacy of Resources in the Textbook: Mathematics

- Majority of teachers (65-90%) reported that the Teacher Text is helpful to a great extent level in planning classroom activities for -enhancing conceptual knowledge of the content, activities given in the textbook can be done by the students themselves, activities which are included by confirming the adequate pre-requisites required for conceptualization are available with the students.
- Teachers are able to carry out the activities given in the Side/ Boxes in the classroom and also able to make the students apply the ideas generated by them in

new situations. Students got opportunities for hypothesizing and generalization in the class

- The textbook helps to organize classroom activities so that children can effectively generate mathematical ideas themselves.
- It is found that only 55.21% of teachers are able to transact the contents of Mathematics effectively to the students, 57.67% reported that the children were able to gather information and analyze them, 49.08% opined that they were able to carry out activities related to ICT given in the Textbook
- It is seen that 40.49% reported that children are able to think rationally and find the cause- effect relation, 36.20% of them reported that the child was able to recognize which mathematical idea/ task to use for problem solving.
- It is noted that nearly 31% reported that a child could analyze and solve a problem himself and learning activities given could be completed in a time-bound manner. It is significant to note that 60.74% reported that a child can analyze and solve a problem himself only upto some extent level.
- It is found that a considerable percentage (13.50%) of the teachers were not able to carry out activities related to ICT given in the Textbook.
- It is also noted that majority of the teachers (62.58%) reported that learning activities given can be completed in a time-bound manner to some extent level only.

Findings based on the Adequacy of Resources in the Textbook: EVS

- Majority of the teachers (72-76%) reported that the text book is suitable with respect to the contents, materials and activities to a great extent level whereas it is noted that 18-20% of teachers reported only to some extent level for the same.
- Majority of the teachers (50-60%) did not find difficulty while transacting the lessons in EVS. Yet a considerable proportion of teachers find difficulties in the making of improvised materials (25.77%) and designing experiments (22.09%).
- Majority of the teachers (60-75%) agreed to a great extent level that the Environmental Science Teacher Text of Class IV gives adequate knowledge about the learning aims of Science, gives clear indication regarding how to plan each learning activity so as to attain the targeted learning outcomes, provides sufficient extra knowledge that helps in conceptualization/ideation and provides different

learning techniques/strategies and that are useful in learning science whereas 12-28% agree to some extent only.

Findings Based on Class Observation: Malayalam

- It is observed that only a few teachers provide a variety of learning activities to get adequate pre-requisites to all learners.
- Majority of teachers have prepared TM using essential resources and activities, but it is noted that very few teachers use additional resources and creative activities other than Teacher Text.
- Majority of teachers provided a variety of learning activities to get adequate pre-requisites to all learners. At the same time very few teachers provided activities necessary for basic pre-requisite knowledge to very few learners.
- Majority of the teachers made the class interesting using descriptions, stories and learning materials. Very few teachers motivated the learners by only describing the content and asking questions.
- Learning activities suggested in TB and TT used by half of the teachers were highly effective for developing reflective thinking among learners, whereas in half of the classes observed the learning activities suggested were effective. Spontaneous progress in learning and timely recording in the TM were there in most of the classes observed.
- Majority of teachers were using learning aids recommended in the curriculum as well as available in the school. A few teachers use innovative learning aids prepared by local resources for attaining conceptual clarity. It is pathetic to observe that two teachers were not even using the readily available learning aids in the school.
- Regarding the knowledge construction through learning activities, it is found that majority of teachers support the learners to attain higher level of knowledge construction through variety of learning strategies including reflective questioning and debating.
- Half of the teachers provided slots for intellectual and emotional development, development of attitudes, values and social responsibilities stipulated in the content.
- Majority of the teachers were able to help all the learners to identify their roles and ensured their involvement in group and individual activities.

- Majority of teachers provided learning activities based on available infrastructure/ICT facilities and created essential situation necessary for independent social and emotional environment. It is serious to consider that very few teachers are not even using available infrastructure/ICT facilities.
- Half of the teachers intervened with all types of learners as mentors and made essential interventions to attain learning outcomes.
- Even though majority of the teachers provided opportunity for reflective thinking, only very few teachers provided opportunity for remedial measures.
- About half of the classes observed, the teachers consolidated group activities during and at the end of the class. But in few classes observed, teachers consolidated only at the end of the class. It is observed that evaluation as envisaged by the curriculum was followed by majority of teachers.
- Among the classes observed, it is found that the performance of teachers is almost average with regard to the components like Teaching Manual preparation, learning environment, and classroom intervention and evaluation process.
- The above mentioned findings highlight the need for empowering teachers with necessary competencies and skills for making the learning process learner friendly.

Findings based on Classroom Observation: English

- From the analysis of English classes, it can be concluded that the performance of majority of the teachers is up to the mark with respect to Teaching Manual, Preparation, Interest and Motivation, Learning Activities, Learning Environment, Classroom Intervention, Reflective Thought, Consolidation, Evaluation Process and Overview of the Class, in most of the classes, but there are cases in which improvement is needed with respect to teaching manual, Learning Environment, Classroom Intervention, Reflective Thought, Consolidation and overview.

Findings based on Classroom Observation: Mathematics

- From the analysis of Mathematics classes, it can be concluded that the performance of majority of the teachers is up to the mark with respect to Teaching Manual, Preparation, Interest and Motivation, Learning Activities, Learning Environment, Classroom Intervention, Reflective Thought, Consolidation, Evaluation Process and Overview of the Class, in most of the classes, But it is noted that in some classes, the areas- interest and motivation, attitude and values , learning environment and reflective thinking need further improvement.

Findings based on Classroom Observation: EVS

- On analysis of the Environmental science classroom observation , it was found that though in most cases Teaching Manual, Preparation, Interest and Motivation, Learning Activities, Learning Environment, Classroom Intervention, , Consolidation, Evaluation Process and Overview of the Class are very good or good , a considerable number of classes need further improvement in these areas. The area reflective thinking need improvement in most of the classes.

Findings based on Answer Script analysis of Malayalam: Error Analysis

- A considerable number of students haven't acquired the skill of writing conversation.
- Majority of students couldn't complete the activity maintaining the processing skills related to poster creation. The children need to acquire the skills for creativity, identifying words/usages appropriate to the context.
- The students didn't get complete understanding about the form of discourse of description based on his /her previous knowledge which he got as part of classroom activities. There is no accuracy in the clarity of ideas, appropriate language, sentence structure, words, symbols etc.
- Only a very small percentage of students possess the ability to prepare note of reminiscence maintaining its stages/phases.
- Students need to acquire skills for using letters, words/usages, sentence structure, clarity of ideas etc. suitable to the context.
- Children face difficulty in preparing note of appreciation based on usage, description, euphony (beauty of words).
- Children face difficulty in completing the form of discourse, completing the poem, creatively and with clarity of ideas using words, usages, description etc.

Findings based on answer script analysis of English: Error Analysis

- Majority (90%) of the students answered for the activity related adding lines. One or two could not identify the rhyming words and set pattern.
- Many of the children got idea from the given context. But they are unable to express it as a thought in a simple language.

- In reading and comprehension learners do not have any difficulty. But some of them are unable to construct dialogues of their own. There were so many spelling mistakes.
- Most of them know the features of a notice. But they are unable to convey the message.
- Children could get ideas from the pictures given. But could not get a holistic view. They could write only individual sentences without any connection. Only one of them wrote it as a description.

Findings based on answer script analysis of Mathematics: Error Analysis

- About 42% children found out the number of notes according to the place value of numbers.
- Majority (83%) of students could arrange the numbers in the table in the ascending and descending order and also can identify a particular number from that .
- Children could identify the minutes and seconds of time. But 50% of children are not able to solve the practical issues related to this.
- Children can identify a.m. and p.m. But makes mistakes when moves to 12-hour clock.
- Children face difficulty to analyse the problem and formulate inferences.

Findings based on the Answer sheet analysis of Environmental Science: Error Analysis

- The learners couldn't identify the features of fish adaptive to aquatic life.
- The learners have not achieved the expected perceptions/skills.
- Majority of the learners could not differentiate between taproot system and fibrous root system.
- It is seen that 83.33 % of learners face difficulty in identifying the physical features of birds adaptive to their ways of travel (flight) and procuring food.
- Lack of skills in observation, tabulation, formulation of interferences etc. was noted among learners.
- Only 16.67 % of the learners could plan activities against environmental devastations

Findings based on Text book analysis - Malayalam

- The lessons do justice to constructivist approach. Different methods are adapted to present ideas on the lessons. Therefore, transaction of an idea to the learners is quite time consuming.
- The contents of unit 2, 3 and 5 are not suited to attain the learning outcomes.
- The content of all the units except unit 1 are suitable for process oriented learning. In unit 1 the vastness of portions/contents defers time bound completion of lessons.
- Even though variety of activities is included, difficulties are encountered regarding time bound completion of them.
- Language used is interactive and child friendly.
- Pictures, graphs, maps used are suitable for learning.
- It may be better to give more models related to language element.
- Simplification of contents is not needed, but more clarification in certain areas may be given.
- Possibilities of continuous evaluation exist in all lessons.
- The activities that enhance discrimination are very rare.
- Activities given in the lesson promote democratic values and attitudes.
- The present layout is child friendly.
- The Teacher Text facilitates transaction of lessons. At the same time, more explanation and activities related to language elements may be given.
- ICT possibilities of all lessons may be given in Teacher Text.
- Poems which can be recited imbibing its music rhythm and emotions may be included in TB.

Findings based on the Textbook Analysis – English

- The vastness of the content hinders proper transaction. The language used is not up to the level of standard 4 learners.
- The activities given are not enough to develop skills, attitudes and values.
- Units 1, 2 and 4 are environment based. The reader considers areas of development but the activities are not enough to ensure it.
- Ample opportunities for process oriented learning are given in the text book.
- The text book has failed to provide variety of activities.

- With respect to the use of language, all the units follow learner friendly approach, but the vocabulary used in the text is quite unfamiliar.
- Most of the pictures are not attractive and lack clarity.
- Some of the lessons in the text require more clarity and explanation.
- Slots ensuring evaluation are not given in each unit.
- There is no possibility of any kind of discrimination throughout the textbook.
- The lessons help to inculcate democratic values among learners.
- The layout of the text book is neither child friendly nor attractive.
- The teacher text facilitates proper planning and creativity.
- ICT integration is a challenging task for practicing teachers.
- Language activities are not given much importance.

Findings based on the Textbook Analysis – Mathematics

- There is no continuity in Mathematical problems. When one problem is presented after the other, continuity/relation is not ensured.
- Lot of Mathematical problems are presented in Unit 10.
- Differently abled learners or learners with different tastes are not taken in to account while presenting activities.
- Some of the activities lead to answers directly, without facilitating construction of answers by the learners. This is quite evident when we examine some of the questions on page 35 of Unit 2.
- Learning outcomes are quite a lot in Unit 1 and 2. Therefore, it is very difficult to ensure that all the learning outcomes are achieved.
- Most of the activities are connected with school and its atmosphere. Activities that ensure learning of Mathematics outside school should also be given.
- Possibilities of Democratic Values are very rare when it is explored in TB.
- Activities that take into account differently abled children can also be included.
- The layout is learner friendly.
- The lessons do not do justice to constructivist approach completely.
- The language is interactive and child friendly.
- The pictures included are suitable in almost all the units except the pictures in pages 65, 128 and 139.
- More explanation is needed only for the activity ‘change to 24 hr. clock’ in Unit 2.

- The lessons in Unit 3–‘Ayirangalcherumbol’,Unit 5–‘Roopangalvarakkam’,Unit 6 – ‘NeelavumBharavum’ need to be simplified.
- More than enough possibilities are there in the TB to ensure continuous evaluation.
- It would have been better if some Units are split into two parts.

Findings based on the Textbook Analysis: Environmental Science

- The lessons in class IV Environmental Science do not do justice to constructivist approach.
- The content of the text book facilitates rote learning thereby leading the learners to one definite answer.
- The contents of the text book are adequate for the process oriented learning. But Unit 8 needs some changes in the activities.
- Different types of leaning activities are seen in the text book. Thus variety is ensured.
- The language used in the text book is suitable to the learners but certain technical terms in unit 2 like Beejaseersham, beejamoolametc.are quite difficult to understand.
- Pictures are suitable in most of the units except unit 2, unit 9 Most of the pictures have to berearranged.
- Unit 3,4 and 8 need more explanation.
- Units 2 and 11 need to be simplified.
- Possibilities for Continuous Evaluation should be included in teacher text.
- Discrimination is not at all seen in any of the units.
- There are possibilities to develop democratic values. Some activities related to environment should also be given.
- Layout is child friendly.
- Teacher Text, facilitates and helps in classroom transaction up to some extent.

Major findings derived from the response of Head Teachers (H.Ms’)

- Vast majority of the schools conduct School Resource Group (SRG) meetings more than once in a month.
- The main areas in which the head teachers had offered suggestions after going through teaching manuals of teachers were: the learning activities to be given to

students (96.11%), learning materials and resources (89.44%), continuous evaluation (87.22%).andwriting 'Qualitative notes (72.22%).

- Majority of the H.M's experience (60.56%) certain difficulties in providing support for the development of arts, physical education, health and work experience while 28.89% reported that they feel 'very much' difficulty in providing support. H.M.s need to develop a clear understanding of the different aspects related to the development of Art, Physical-Health Education and Work Experience and the resources that can be used for providing support for the same.
- The major areas in which the H.Ms face difficulties in providing support for the development of arts, physical education, health and work experience, are financial aspects, locating experts and procuring the necessary infrastructure.
- Majority (62.22%) of the head teachers are able to observe the class only 'sometimes'. It may be because they are busy with other official works at school and outside. Yet more than thirty five percentage (35.56 %) of H.M.s reported that they 'always' conduct class observation and provide necessary suggestions to teachers.
- Majority of the H.M.s (58.33%) always ensure that students attain learning outcomes whereas 38.89% sometimes ensure it.
- Majority of the H.M.s under study use the services of Experts (76.67%) and Local resources (63.89%). This indicates that the excellence of the students as well as teachers is an important concern of majority of the head teachers and hence they are willing to provide maximum resource support for them from experts and local resources.
- The various areas where the H.M.'s use the services of experts and local resources are: giving experts' classes for teachers (37.78%), awareness programs (33.33%), agriculture (13.89%), experts' classes for students (13.89%), interviews (12.22%), arts (10%), and physical and health education activities (10%), day celebrations (6.67%), field trips (6.67%), workshops (3.89), parental help and support (2.22%) and strengthening of Parent Teachers Association (PTA) (2.22%).
- The reasons for not availing of services of experts and local resources ,as given by those HMs who do not avail them, are lack of services of experts, over-workload of teachers, over-workload of H.M and financial constraints.

- Vast majority of the H.M.s make use of the services of School Management Committee (SMC) /Parent Teachers Association(PTA) in the following contexts - Re-opening festival (99.44%); Day celebration (90%); Festivals (Mela) (85.56%); Noon-Meal (84.44%); Anniversary (84.44%) and majority of them for Club activities (76.67%). The other contexts where the services of SMC/ PTA are availed are Field trips (33.33%); Infrastructure (12.78%); Awareness programs (6.67%); Agriculture (6.11%); Celebrations (4.44%); Health activities (4.44%); Camps (3.33%) and Seminar Workshops (2.78%).
- Vast majority of the H.M.s make use of the services of Mother Parent Teachers Association (MPTA) in the following contexts - Re-opening festival (93.89%); Noon-Meal (86.67%); Anniversary (83.89%); and Day celebration (81.67%); and majority of them for Festivals (Mela) (78.89%) and Club activities (61.11%).
- Majority of the H.M.s make use of the services of Local Self Government (LSG) for Anniversary (71.11%) and Re-opening festival (68.33%). LSG is also made use of, by H.M.s, for Day celebration (46.11%); Festivals (Mela) (37.78%); Noon-Meal (37.22%) and Club activities (28.89%).
- The service of the alumni of the school is availed by majority of the H.M.s for Anniversary (57.22%), whereas alumni support is also utilized for Re-opening festival (31.67%); Festivals (Mela) (31.67%); Day celebration (21.11%); Club activities (16.11%) and Noon-Meal (7.78%).
- Vast majority of the H.M.s (97.22%) ensure that teachers share ideas they receive from training programmes whereas 2.22% do not do so. It is imperative from the results that vast majority of H.M.s recognize the need for sharing of ideas by teachers following all training and they ensure it.
- Vast majority of the H.M.s (80%) organize special classes for those who do not know how to read and write. Similarly, to provide proper learning situations for students who face difficulties in learning, H.Ms take the following measures - House visits and helping in arranging conducive facilities at home (16.11%); Peer group study (11.11%); Providing work sheets (5%); Providing learning materials (4.44%); Use special learning materials and resources (3.89%); Use of ICT resources (2.22%); Providing financial support (2.22%) and Providing special support (1.67%).

- The HMs reported that for gifted children are: competitive examinations training (33.33%); quiz and other competitions (22.22%); library and extra reading materials (21.67%); special (extra) training (16.67%); encouragement (13.33%); expert classes (7.78%); supporting those who are backward (7.22%); giving more opportunities (6.67%); additional work (5.56%); scholarships (5.56%); use of labs (4.44%); camps (2.22%); motivation classes (1.11%); field trips (1.11%) and debates/ seminars (0.56%) were given at schools. It is very sad to say that while the schools take up many programmes for the uplifting of students with learning difficulties, enrichment of gifted students to enhance their talents is not given much importance.
- It is seen that 71.11 % of HMs reported that ISM team had not paid monitoring visit to their school while 28.89% replied it positively.

Out of those HMs who reported that Internal Support Mission (ISM) team had paid visit to their schools, 98.8 % reported that the ISM monitoring visit was effective. This indicates that the ISM team had given academic support to the school and given clarifications and suggestions regarding the various aspects of school activities.

- H.Ms reported that that they had received help and support from ISM team in the following ways:- got directions for quality improvement (19.61%) started special training for backward students (19.61%), pointed out the deficiencies (17.64%), got directions for making classes effective (15.69%) possibilities /scope of TLM became clear (9.80%), empowerment of teachers (9.80%), got directions for conducting SRGs effectively (7.84%), got directions for activity- based learning (5.88%), enhancement of confidence of teachers (5.88%), improvement of noon-meal (3.92%), enhancement of efficiency (3.92%), improvement of infrastructure (1.96%) and school became disciplined and in order (0.56%).
- Vast majority of H.Ms took initiative to carry out Cleanliness drive (89.44%) and Environment protection activities (83.33%) whereas Water resource management and Energy conservation activities were done by 29.44% and 23.89% respectively. There are also certain minor areas suggested by very negligible proportion of the HMs under study.

Findings of Focus Group Discussion (FGD): Assistant Education Officer (AEO)

- Majority of the AEOs reported that they continuously monitoring the academic activities and give support wherever and whenever needed. In addition to this they motivate teachers by appreciating their excellence.
- According to them majority of the teachers do not prepare teaching manual as envisaged in the teacher text. It is found that majority of the teachers feel difficulty in writing reflective notes and support is needed for writing that.
- Many of the teachers use teaching learning materials for making the classroom teaching effective. But some of the teachers are not even using the learning materials available in the schools.
- It is found that the major learning material used in the classroom is the textbook itself.
- In more than half of the classes the teaching learning process takes place effectively. It is significant to note that certain classes are not at all effective.
- In majority of classes, learning products are displayed. But only in certain schools the display of products are periodically updated. It is found that the majority of the teachers are not making use of these products later.
- Service of the teachers in a school is permitted for the smooth conduct of programmes like Youth festival and science fairs in other schools. AEOs reported that during monitoring, they ensure whether due consideration is given to differently abled, slow learners and gifted students.
- They do constant and continuous monitoring and provide support in organizing programs and fairs related to art and physical education.
- AEOs reported that they give creative and valuable suggestions for the smooth conduct of PTA and SMC.
- AEOs are involved in the programmes of Village Education Committees (VEC) actively.
- All the AEOs reported that the Internal Support Mission (ISM) visits were very much effective in enhancing the academic as well as administrative excellence of schools.

- AEOs participate in the District Resource Group (DRG) training of the Cluster, and they monitor each cluster and make sure that the cluster is conducted as per the module.
- The infra-structure facilities of the school as well as the classroom facilities are monitored and necessary suggestions are given for their improvement.
- AEOs ensure whether the funds allotted to schools are properly utilized and recorded.
- They monitor the noon meal programme and ensure that nutritious and hygienic food is given to the students without fail.
- Majority of the AEOs feel that team monitoring is more effective than individual monitoring as both administrative and academic aspects could be monitored within a single visits

Findings based on Interview/ G D: Learners

- Majority of learners reported that they are actively involving in classroom activities; mainly through group activities and the timely involvement of majority of teachers make the group activities active and alive.
- Majority of learners opined that teachers also give clues and hints while doing self-activities by learners.
- According to the learners, they are participating in various club activities like Physical Education club, arts club, Road safety club and they involve in the activities like Conservation of nature and water, fairs, cleaning and waste management etc.
- Learners reported that different types of learning aids /models are prepared by the teachers with the cooperation of learners and make use of them in the teaching learning process.
- Majority of the learners opined that they warmly welcome the newly developed textbooks and are satisfied with its color printing, pictures and maps. They agreed that the textbooks are up to the level of learners.
- A great majority of the learners agreed that they get help from their parents for studying and parents motivate them to study. A few learners reported that they are not getting any help from their parents.

Findings based on Interview/ F G D: PTA

- PTA Members reported that general body meeting will be conducted at the beginning of the academic year and executive committee meetings are conducted as and when required. Most of the executive members attend the executive meetings along with the teachers.
- MPTA and CPTA meetings are conducted for ensuring the security, quality of noon meal and to provide suggestions for academic improvement.
- MPTA and CPTA meetings are to be convened as per the convenience of parents. In addition to this awareness programmes are to be conducted.
- It is reported that the facilities such as classrooms/smart classroom, toilets, facilities for the differently abled, lab and library are available in most of the schools. But they are not sure about the utilization of smart classroom, lab and library.
- The major interventions made by them are donating books to the library.
- Regarding the revised textbook, they reported that the text books are learner friendly, attractive and suitable for intellectual level to a certain extent. The activities included in the text book are learner friendly and practicable.
- They are unaware of the learning outcomes.
- Since there are no teachers to handle the subjects like art education, physical education and work experience, mostly students are exposed to playgrounds during these periods.
- No support is rendered by PTA for the CWSN students.
- PTA renders services to solve problems, if any.
- PTA is one of the essential components of school management.
- PTA plays an important role in the availability and utilization of funds.

Practical Difficulties Encountered by Teachers in different areas

A. Learning Outcomes.

- Teachers experienced difficulty in attaining clarity regarding the features of learning outcome like short term and long term outcomes, outcomes attained through process oriented learning, learning outcomes that develop values, attitudes, and social commitment and that can be developed through collaborative learning.
- Teachers couldn't differentiate between short term and long term learning outcomes.

- Teachers find difficulty in the time bound completion of learning outcomes.

B .Learning Resources

- The difficulties pointed out by teachers with respect to the features of the textbook are: too difficult lessons for transaction, lack of activities for catering inclusive learning, difficult vocabulary used, language unsuitable for the age level of learners, lack of clarity, blurred pictures, links provided are inaccessible and lack of extended activities for enhancing creativity.
- The division of periods given in teacher text is not suitable for the transaction of the content in the text.
- Teacher text is not helpful in preparing Teaching Manual (TM).
- The facilities such as Social Science corner, Social Science club, Social Science lab and Mathematics lab are not available in many schools.
- The limitations pointed out by teachers in the areas of Arts, Health and Work experience are: lack of trained teachers, lack of space, lack of local resources and lack of fund.

C. Learning Process

- ‘Learning of the different levels of learners’ and ‘Integrating arts, Physical Education, health and work experience’ are the two major thrust areas that posed difficulty for many of the teachers.
- Teachers find difficulty in ensuring the development of process skills in learners through learning process.
- Learning strategies like Investigative learning and Meta cognition were found to be the most difficult strategies for teachers.
- Lack of time’ and ‘Lack of facilities/materials were the major reasons reported by the teachers in making use of appropriate learning strategy.
- Majority of the teachers were not able to ensure the attainment of learning outcomes in different level of learners due to lack of attendance of students, lack of specially prepared teaching learning materials and lack of continuous support.

D. Evaluation

- Many teachers need clarity in assessment of learning process and in Port-folio assessment.
- Teachers are not able to carry out learning process and evaluation simultaneously due to lack of awareness in suitable learning strategies.

- Teachers pointed out lack of time as well as overcrowded classroom as the difficulties to carry out evaluation.
- Teachers find it difficult to conduct proper evaluation related to art, Physical Education and work experience due to lack of trained teachers, lack of separate period for teaching these areas and lack of evaluation tools/ worksheets for evaluating these subjects.

E. Support System

- It is pointed out that less support is attained in the areas to enhance the emotional stability of children, awareness against abuses, awareness against crimes, water literacy and right based education.
- Monitoring is not carried out effectively.
- Teachers couldn't get clarity in areas of Art and Work Experience Education, Inclusive education and Guidance and Counseling.

Findings Based on Adequacy of Resources in the Textbook: Language (Malayalam & English)

- Teachers find difficulty in transacting the discourses due to lack of sample models, complexity of the learning process, slow learners' difficulty in doing activities, language skills which are above the level of learners, and lack of sufficient vocabulary among learners.

Adequacy of Resources in the Textbook: Mathematics

- Teachers were not able to carry out activities related to ICT given in the textbook.
- It is pointed out that learning activities given can't be completed in a time-bound manner.
- Teachers reported that the learners can't analyze and solve a problem himself completely.

Adequacy of Resources in the Textbook: Environmental Science

- Teachers reported that the text book is not completely suitable with respect to the contents, materials and activities.
- Many teachers find difficulties in the making of improvised materials and designing experiments.

Findings based on Answer script analysis

Answer script analysis of Malayalam: Error Analysis

- Children need to acquire the skills of creativity for identifying words/usages appropriate to complete the activity by maintaining the processing skills related to poster creation.
- There is no accuracy in the clarity of ideas, appropriate language, sentence structure, words, and symbols etc. in the discourse of description as a part of classroom activities.
- Children face difficulty in preparing note of appreciation based on usage, description, euphony (beauty of words)

Answer script analysis of English: Error Analysis

- Even though children got idea from the given context, they are unable to express it as a thought in a simple language.
- Students are unable to construct dialogues of their own and made so many spelling mistakes.
- They could write only individual sentences without any connection.

Answer script analysis of Mathematics: Error Analysis

- Children need clarity in place value of numbers.
- Even though children could identify the minutes and seconds of time, they are not able to solve the practical issues related to this.
- Children can identify a.m. and p.m. But makes mistakes when moves to 12-hour clock.

Answer script analysis of Environment Science: Error Analysis

- Learners couldn't identify the features of fish adaptive to aquatic life.
- Majority of the students could not differentiate between taproot system and fibrous root system.
- Students face difficulty in identifying the physical features of birds adaptive to their ways of travel (flight) and procuring food.
- Students lack the skills of observation, tabulation, formulation of interferences etc.
- Students couldn't plan activities against environmental devastations.

Findings based on Text book analysis -Malayalam

Text book analysis -Malayalam

- The contents of unit 2, 3 and 5 are not suited to attain the learning outcomes.
- The content of unit 1 is not suitable for process oriented learning. In unit 1, the vastness of portions/contents obstruct time bound completion of lessons.
- ICT possibilities of all lessons may be given in teacher text.

Textbook Analysis - English

- The activities given are not enough to develop skills, attitudes and values.
- Units 1, 2 and 4 are environment based, but the activities are not enough to ensure it.
- Most of the pictures are not attractive and lack clarity.
- Slots ensuring evaluation are not given in each unit.
- The layout of the text book is neither child friendly nor attractive.

Textbook Analysis – Mathematics

- Lot of Mathematical problems are presented in Unit 10.
- Differently abled learners or learners with different tastes are not taken in to account while presenting activities.
- Activities that ensure learning of Mathematics outside school are not given.
- Possibilities of Democratic Values are very rare.

Textbook Analysis- Environmental science

- The lessons in class IV environmental science do not do justice to constructivist approach.
- Unit 8 need some changes in the activities for process oriented learning.
- Certain technical terms in unit 2 like Beejaseersham, beejamoolametc.are quite difficult to understand.
- Pictures are not suitable in unit 2 and unit 9.
- Unit 3, 4 and 8 need more explanation.
- Units 2 and 11 need to be simplified.
- The pictures in pages 65, 128 and 139 need more clarity.

Suggestions Emerged out of the Study

A. Learning outcomes

- As teachers need more clarification of learning outcomes, orientation programmes /workshops may be arranged on areas like differentiating short term and long term outcomes, outcomes attained through process oriented learning, learning outcomes that develop values, attitudes, and social commitment and collaborative learning.
- Teachers may be oriented to adopt various teaching learning methods like provision for ICT usage, provision for extended activities, situational learning, peer tutoring, life experience and co-operative work and extended reading activities for achieving the learning outcomes.
- Efforts should be taken to ensure the distribution of learning outcomes in different units of Class IV according to the level of the learners.
- In order to have time bound completion of learning outcomes, the content as well as its depth should be reduced, strength of students in each class should be reduced and ensure the availability of text books in time.

B. Learning resources

In order to make the Text Book more learner friendly, reduce the quantity and complexity of the content and use language suitable for the age level of learners, include activities for catering inclusive learning, simplify the vocabulary used and include pictures of better clarity.

Modifications are to be made in the features of Teacher Text by including more time for processing discourses, sufficient examples in TT, availability of scoring key in Mathematics text and more clarity in text book related hints.

Facilities like Social Science corner, Social Science club, Social Science lab and Mathematics lab are to be provided in all schools.

Content in the Text Book of class IV should give more emphasis for the utilization of facilities like library, lab, ICT, display board, periodicals and subject corners and more instructions may be provided in this regard.

Provide special teachers for Art Education, Physical Education and Work Experience and clubbing the schools and appointing resource persons in Art Education.

C. Learning Process

- Better training is to be provided for teachers to ensure proper planning for the development of process skills in learners through multisensory experience and

adopting the strategies like Investigative learning and Metacognition and Socialization.

- In order to ensure learning outcomes satisfactorily in different levels of learners, learning activities may be reduced and provide specially prepared teaching learning materials.
- Orientation may be given to teachers for transacting the content in a learner friendly manner.

D. Evaluation

- Teachers may be provided awareness programmes to use suitable learning strategies to carry out both learning and continuous evaluation process simultaneously.
- Training is needed to have clarity in Assessment of Learning Process, Unit Assessment, Portfolio Assessment, Self-Assessment, Peer Assessment and developing indicators for evaluation by learners.
- Training should be given for teachers to frame different strategies for CWSN learners.
- Evaluation related to Arts, Physical Education and Work Experience should be made more effective by the appointment of trained teachers in Arts, Sports and Work Experience and by providing evaluation tools/ worksheets for evaluating these subjects.
- **Support system**
- Arrange conscientization programs in the areas related to the emotional stability of children, awareness against abuses, awareness against crimes, water literacy and right based education.
- Orientation and training may be provided for teachers to get clarity in areas of Art and Work Experience Education, Inclusive education and Guidance and Counseling.

Adequacy of resources

1. Language (Malayalam and English)

- Activities like poetry completion, picture story and reading picture suitable for creative writing are to be included in the text book.
- Teachers may be trained to use more techniques for acquiring language skills.
- Teacher text may be made more adequate for effective transaction of the concepts.

2. Mathematics

- The concept of place value of numbers should be made more clear.
- More concretization may be done in the area of time concept, especially 12 hour clock.

3. Science

- Efforts may be taken for provision for making improvised materials and designing experiments in order to reduce difficulty while transacting the lessons in science.
- Science text of class IV may include adequate knowledge about the learning aims of Science, planning learning activity and better conceptualization.

Classroom Observation:

1. Malayalam

- Teachers should be encouraged to use innovative learning aids prepared by local resources for attaining conceptual clarity.
- Teachers should provide more slots for intellectual and emotional development, development of attitudes, values and social responsibilities stipulated in the content.
- As the performance of teachers is almost average with regard to the components like Teaching Manual preparation, learning environment, and classroom intervention and evaluation process, more emphasis is to be given in these areas.

2. English

- More emphasis should be provided for teachers to prepare Teaching Manual, Learning Environment, Classroom Intervention, Reflective Thought, Consolidation and Overview.

3. Mathematics

- The areas of interest and motivation, attitude and values, learning environment and reflective thinking need more improvement.

4. Environmental Science

- Reflective thinking areas may be given more importance eventhough teaching manual preparation, learning activities, learning environment, classroom intervention, consolidation, evaluation process and overview of the class are good.

Analysis of answer scripts: Error Analysis

1. Malayalam

- Provision for improving communicative skills and process skills of learners should be made.
- Training should be provided for poem completion to enhance independent creations using appropriate language/expression without spelling mistakes.

2. English

- More practice sessions may be given for better communication.
- More exercises should be arranged for avoiding spelling mistakes.
- Children should be equipped to construct meaningful connections between the sentences.

3. Mathematics

- More emphasis should be provided to internalize the basic concepts in Mathematics.
- Efforts should be taken to develop problem solving skills, to record and communicate what learners have understood.

4. Environment science

- More provisions are to be provided for developing process skills such as observation, tabulation and formulation of inferences.
- Better conscientization should be rendered in planning the activities against environmental devastations.

Textbook Analysis

1. Malayalam

- The contents of unit 2,3 and 5 may be modified as they are not suited to attain the learning outcomes.
- Unit 1 is too vast in portions/contents which defers time bound completion of lessons and hence should be edited.
- ICT possibilities of all lessons may be given in teacher text.

2. English

- Proper activities should be given to develop skills, attitudes and values.
- In Units 1, 2 and 4 (environment based) modifications may be made with respect to the vocabulary used, pictures used, layout, ICT integrated activities.

3. Mathematics

- Activities should be framed to cater the needs of differently abled learners.
- Activities that ensure learning of Mathematics outside school should also be given.

4.Environmental Science

- The lessons should be modified to cater constructivist approach.
- More process oriented activities are to be included in Unit 8.
- Technical terms should be made comprehensible and clear pictures should be rearranged.
- The concept of ‘adaptations of the fish as suited to its aquatic life’ may be made more concrete.
- Identifying the physical features of birds, adaptive to their ways of travel (flight) and procuring food also need more concretization.
- Students should be conscientized to realize the interference of human beings in destroying natural habitats of his/her locality and plan activities against environmental devastations.
- Overloaded content may be reduced.

Major suggestions derived from the Response of HM

- Provide clear understanding of the different aspects related to the development of Arts-Physical Education-Health-Work Experience materials and resources that can be used so that they can provide support for the same.
- More programmes may be arranged for the enrichment of gifted students to enhance their talents as it is not given much importance.
- Steps may be taken to conduct ISM review effectively for getting clarifications and suggestions regarding the various aspects of school activities.
- More initiative should be taken from the part of HMs in the areas of Water Resource Management and Energy Conservation as a part of social relationship activities.

Major suggestions of FGD members (AEO)

- Ensure the preparation of teaching manuals as envisaged in the Teacher Text and provide support in writing reflective notes for teachers.
- Periodic updating of the display of learning products should be made and the teachers should make use of these products later.

- Team monitoring may be given more importance than individual monitoring as both administrative and academic aspects could be monitored within a single visit.

Major suggestions based on interview/ G D: Learners

- Teaching aids and models may be prepared with more cooperation of learners and use of them in the teaching learning process.
- Parents may be conscientized for enhancing the parental help rendered to their wards.

Major suggestions based on FGD- Parents

- MPTA and CPTA meetings are to be convened as per the convenience of parents and awareness programmes are to be conducted.
- Specialized teachers are to be appointed to handle the subjects like Art Education, Physical Education and Work Experience as most of the students are exposed to playgrounds during these periods.
- Parents may also be involved in the support that can be rendered for the CWSN students.

Conclusions

From the findings it can be concluded that the teachers participated in this study were generally in favour of the new curriculum. According to the teachers the structure and organization of the new curriculum at Primary level are appropriate to achieve the goals of primary education. The curriculum content was selected and organized appropriately to the level of learners and more over they agreed that the suggested experiments, field trips, observations, projects and instructional materials in the curriculum were adequate and appropriate to a great extent. The teachers reported that the suggested teaching and learning activities in the curriculum helped a lot during teaching -learning process. Textbooks are prepared in tune with the curriculum, but to be revised timely. The study revealed that students' active participation and interest in the subject matter has increased with the new curriculum. The curriculum content has a good sequence and that the subject matter is related to real life issues. However, it is found that subject matter is too detailed and so it orients students to rote learning especially in Social Science. They also think that the time allocated for transacting the curriculum content is not enough to carry out intended curriculum tasks. Although the teachers seemed to approve the major aspects of the new curriculum in general, there were some differences in the ways of transaction due to certain constraints like lack of time, overloaded content and lack of facilities. Even

though certain teachers seemed to use instructional technology, field trips and observations more often, it was observed that these teaching methods and techniques were rarely or never used during instruction in general. The instructional materials used by these teachers show variety (written materials, examples and models, diagrams and graphs, living things etc.) but the findings of this study show that written materials and text book were the most commonly used instructional materials in classes. Even though there is provision for the use of ICT materials in learning process, majority of teachers are not using ICT facilities. Since the physical structure and facilities of the schools emerged as one of the major factors constraining the implementation process of the new primary curriculum, the first focus is to be given to facilities, resources & materials and existing and emerging technologies. In order to use inquiry-based practices, teachers should be supported with rich and satisfactory facilities and resources. However, the results of this study show that teachers working in different schools do not have access to the same satisfactory conditions to use the desired implementation tasks in their classrooms and situation is far from ideal in many schools trying to implement the new curriculum in the way it is intended.

It is seen that the findings of this study can be used to help curriculum developers in planning strategies for improving the present Primary school curriculum. Findings were varied in relation to parents' involvement in supporting the implementation of the curriculum and in their active participation in school. It was found that effective consultation and parental involvement to enhance their children's learning is being encouraged. Textbooks exert a dominant influence on teaching and learning in a significant number of classrooms. Also the teacher text is suitable for transaction of all units. There was an overdependence on text book and workbook activities, which often resulted in pupils engaging in unchallenging and repetitive tasks. There was little emphasis on the development of higher-order thinking skills, on nurturing pupils' creativity, or on encouraging pupils to respond emotionally and imaginatively. The findings suggest strongly that teachers require additional supports to broaden their teaching strategies and approaches and to further focus on the process approach. There is a need for additional guidance for schools on how to adapt the curriculum to meet the diverse needs of learners. It is serious to consider the instruction and evaluation of Arts, Physical and Health Education and Work experience. Better improvement is needed in these areas. Monitoring is made by AEOs, but needs effective feedback and follow-up. Although the teachers

moderately or fully approved many characteristics of the new curriculum at primary level, they pointed out to make necessary changes for the language and subject curriculum.

Even though learners have reading skills, they need to acquire skills for expressing their ideas in written form i.e., they need to acquire skills for using words/usages, avoid spelling mistake and proper sentence structure to express ideas clearly in tune with the context. Learners find difficulty in analyzing problems to arrive at valid conclusions. They also have difficulty in practical problems which involves time concepts. Learners found to lack the skills of observation, formulation of inferences and differentiation of scientific concepts. The study highlighted the need for simplified and reorganized curriculum for the attainment of full vision of the constructivist approach. Working together and sharing ideas and experiences help teachers to implement the curriculum more successfully. Moreover, Co-operative and Collaborative learning help to transact the curriculum more effectively and easily.

Chapter - 1

Introduction

The prime objective of education is the socialization of human beings and the school is the pivotal agency to organize and transmit all the cultural and social values to individuals. Curriculum is the most effective tool to disseminate all these values to the society and individuals. To assess a curriculum, a breathless effort is needed. Assessment of the process of curriculum development plays a vital role in channelizing and keeping the direction of young generation on the desired way for the achievement of national objectives and keeping the system update with respect to the changing scenario of time. Curriculum development process also undergoes transformation due to newer developments in education and its evaluation keeps it valid, reliable and keeps it in the right direction. Recommendations through evaluation for any process have a message of eternity for it. Therefore the curriculum development process should be organized in such a way which helps to prepare young men and women for pursuing higher education and also to make them able to adjust with their practical life meaningfully and productively..The goals of education can be attained only through valid reliable curriculum and proper evaluation process for updating and fulfilling required social needs.

The Kerala Curriculum Framework, adopted in 2007 (KCF 2007), was recognized by far and wide, as it was an exemplarily, modified and progressive document that the state had to offer KCF 2007 apt for the present Kerala social and educational scenario, after the National Curriculum framework (NCF 2005) guidelines laid down by the NCERT. The Curriculum developed on the basis of KCF 2007 from the primary to the higher secondary level which thrusts the philosophical and psychological premises of Social Constructivism, Critical Pedagogy, Multiple and Emotional intelligences, Inclusion in Education, etc., and also it is stressed on the ‘Mental process of the learners.

Primary school curriculum was always considered as the cornerstone of any educational progress because it had direct influence on the ‘making’ process of the learner. The Right of Children to Free and Compulsory Education Act (RTE Act, 2009/2010) underlines the important aspects of the primary school curriculum. The Primary School curriculum in Kerala after curricular revision of KCF 2007 already had conformed to these aspects.

Curriculum evaluation is an essential phase in the development of a progressive curriculum. Curriculum development is an evolving process which makes curriculum suitable to the individual and social needs as well as the goals of the nation. Curriculum at school education revises in Kerala after every five years. The curriculum and textbook prepared as per the Kerala Curriculum Framework (KCF, 2007) has been reviewed by an expert committee appointed by the government of Kerala and an approach paper developed to change the curriculum and textbooks of School education in Kerala. As a result the text book of class I,III, V, VII and XI were revised in the academic year 2014-15. The text books of class II, IV, VI, VIII, and XII revised in 2015-16and textbook of class IX and X revised in 2016-17 academic years. A status survey at higher secondary level and a baseline study at primary and secondary levels have been conducted during this period.

Need and significance of the study

Current reconceptualization's of curricular frameworks place the curriculum content in more ecologically valid contexts, making it more inquiry based, and urging the adoption of outcomes assessment measures which tap students' abilities to engage in activities rather than test their abilities to regurgitate rote learnt facts. Such reconceptualization's also place greater emphasis on the need to develop students' critical thinking and problem solving skills so that they will be prepared for the challenges and opportunities of the new millennium. With the aim of maximizing the efforts to bring about the proposed curricular reforms and to increase the success of the curriculum implementation process, there arise the need to make careful descriptions of what transpires in classrooms on a daily basis and why this happens. This will allow educationalists to find ways to support teachers, as they are required to adopt retooled and reformed curricula. If this is not done teachers continue with their routines: their previous experiences, what has worked in the past. As a result, change does not occur and the implementation of a new curriculum does not conform to the curriculum intended by curriculum designers.

It helps us to visualize how curriculum developers' decisions are interpreted and practiced by teachers in classrooms. The rich information collected through the survey and questionnaire also helps us to identify the forces applying to the process of implementation. In turn what does or does not get implemented in the curriculum can be determined and the reasons for the differences between intended and implemented curricula can be recognized. This study also helps to identify the practical problems faced

by teachers. The findings of this study can help teachers to improve their performance and instructional practices. This valuable information in turn can help curriculum planners, authorities, decision makers to develop better-designed materials and make further progress in the curriculum design.

The present study is conducted after the implementation of current cycle of curriculum development. The investigation covers Standard 4 on the subjects such as English, Malayalam, Mathematics and Environmental Science. The study focused on five major dimensions of curriculum, ie, Learning outcome, Learning resources and materials, Learning Process, Evaluation system and teacher support mechanisms. Data were collected from the different stakeholders of educational system including students, teachers, parents, Heads of institutions, AEOs and members of the local bodies. Concurrent review and assessment of the Curriculum being followed would help to assess the merits and demerits of the existing curriculum as well as to offer suggestions to implement it in a better manner or to fill the gap, if any. Review of the curriculum is to evaluate its effectiveness after it has been implemented and reflect on what students, teachers and the society did and did not get out of it. Hence, the study, An Assessment of Kerala Curriculum at Primary Level.√The study has carried out by considering the following objectives.

Objectives

- To assess the Revised Kerala curriculum (Class- IV) with respect to
 - i. Learning Outcomes
 - ii. Learning Resources
 - iii. Learning Process
 - iv. Support System
 - v. Evaluation
- To find out the practical difficulties encountered by teachers in implementing the revised curriculum.
- To suggest measures for making further revision effective.

Methodology

Method

Survey method and Document analysis are the major methods used for collecting data for the present study.

Sample of the study

The present study was conducted in Class IV of 6 Revenue districts (Thiruvananthapuram, Idukki, Palakkad, Ernakulam, Malappuram, and Kannur). From each Revenue district 2 sub districts were selected for the collection of data. The sub districts selected were: Thiruvananthapuram South and Attingal from Thiruvananthapuram district, Munnar and Arakkulam from Idukki District, Ernakulam and Thrippunithura from Ernakulam District, Mannarkkad and Ottappalam from Palakkad district, Panoor and Iritty from Kannur district and Parappanangady and Vengara from Malappuram district. The sample for the study consisted of

12 AEOs (2 AEOs from each Revenue District)

180 Headmasters/ Headmistresses (15 Headmasters from each sub district)

720 Primary school teachers (60 teachers from each sub district)

The details regarding sample selected for the study are given in the table below.

Tools and techniques used for the Study:

The major tools and techniques used for the study were:

- 1. Questionnaire for teachers (General as well as specific questionnaire for teachers)**
- 2. Questionnaire for head teachers**
- 3. Answer sheet analysis – Error analysis**
- 4. Text book analysis (Malayalam, English, Environmental Science and Mathematics of Standard IV)**
- 5. Class Observation Schedule**
- 6. Group discussion schedule for Students, AEO and PTA**

Description of the tools and Techniques

Questionnaire for teachers

General as well as specific questionnaires were given to fourth standard school teachers. The questionnaires contain both closed and open ended questions. The questionnaires are used to collect views and suggestions of teachers regarding assessment

of Revised Kerala curriculum (Malayalam, English, Environmental Science and Mathematics) with respect to its Learning Outcomes, Learning Resources, Learning Process, Evaluation and Support System. Moreover, the practical difficulties encountered by teachers in implementing the revised curriculum and their suggestions regarding different measures for making further revision of the curriculum more effective were also collected by using the questionnaire for teachers.

Questionnaire for Head Teachers

A questionnaire was prepared to collect data from Head teachers to assess the different aspects of revised curriculum such as learning outcomes, learning resources, learning process, support system and evaluation. The questionnaire include questions related to whether they are checking the teaching manual of teachers, what are the difficulties they are experiencing in giving supports to different areas of Art, Sports-Health and work experience, whether they are getting support from different agencies such as SMC/PTA, MPTA, LSG, ALUMNI etc., whether the teachers are sharing the experiences they gained during different training, what are the measures they are taken to provide support to backward and gifted students, what are the different community activities conducted in school to improve teaching and learning.

Text book analysis (Integration, English and Mathematics of Standard IV)

Text book analysis was done to find out whether the text books (Malayalam, English, Environmental Science and Mathematics of Standard IV) are in conformation with the constructivist paradigm, suitability of its content in attaining learning outcomes, suitability of the content for activity based learning, whether the books contain diversity of learning activities, use child friendly language, have clarity in pictures, graphs and maps, slots for continuous evaluation, instances of disparity and what are the different areas which need further simplification explanation.

Class observation schedule

The observation schedule was designed as an analytical device to observe and gather factual information regarding the performance of teachers with regard to the components such as Teaching Manual preparation, pre-planning, interest and motivation, learning activities, learning environment, classroom intervention, evaluation and consolidation.

Focus Group Discussion

Focus Group Discussion points was prepared carefully in advance through identifying the main objective(s) of the meeting, developing key questions, developing an agenda, and planning how to record the session. A detailed report is prepared after the session was finished. Observations during the session were noted and included in the report.

Data Collection Procedure

Data collection was done by a group of six members in each education sub-districts under the leadership of concerned AEOs and faculty members of DIET. A one day workshop was conducted in the SCERT to the members of data collection for familiarizing the tools.

A one day meeting of H.Ms of 15 schools was conducted by AEO for collecting data from H.Ms using the questionnaire. The team consists of practicing teachers in the subjects of Malayalam, English, Environmental Science, Social Science and Mathematics including AEO and DIET faculty visited the various schools for collecting data from the teachers, conducting group discussion with PTA/LSG and for observing the classroom.

Questionnaire for teachers and HMs, were administered in 12 subdistricts of six Revenue districts (Thiruvananthapuram, Idukki, Palakkad, Ernakulam, Malappuram, and Kannur) and their responses were collected back. The data thus obtained were scrutinized and only those found complete and correct with respect of all the necessary information above were chosen for analysis.

A series of workshops were conducted for analyzing data, tabulation of data and report writing.

Statistical Technique Used

The statistical technique used for the analysis of data was Percentage Analysis.

Chapter 2

ANALYSIS AND INTERPRETATION

The present study is to assess the implemented curriculum in fourth standard of the Kerala state. This part presents the analysis of data collected from various stakeholders of primary education using various methods. Data were collected from the teachers, headmasters, students, PTA/LSG members and AEOs and analyses separately. Classroom observations were also conducted by using the schedule. An in-depth analysis of textbook and teacher text was also analyzed and presented.

Data collected from the teachers regarding the learning outcome, learning resources, learning process, evaluation and support system are analyzed separately and it is presented in the suitable heads.

Learning Outcome

The teachers were asked to mark their responses regarding the characteristics of learning outcomes envisaged in the Curriculum 2013. The responses were collected and analyzed. The results are given under the subheadings based on the responses of teachers of Standard IV.

Clarity of the features of the learning outcomes

The teachers are asked to mark their opinion regarding the clarity of different features of the learning outcomes envisaged in the curriculum 2013 as 'Yes' or 'No'. The responses obtained from teachers were tabulated and analyzed. The result showing the percentage of teachers who have and do not have clear idea regarding the different features of the learning outcomes envisaged in Curriculum 2013 are given in Table 1.1

Table: 1.1

Clarity of the features of the learning outcomes

Statement	Responses in percentage	
	Yes	No
Clarity regarding features of the learning outcomes envisaged by curriculum 2013	79.41	20.59

From the table 2.1, it is observed that majority of teachers (79.41%) of Class IV have a clear idea regarding the features of the learning outcomes envisaged in the curriculum 2013. A significant percentage of teachers (20.59%) opined that they need more clarity regarding the features of the learning outcomes envisaged in the curriculum 2013.

Therefore it is inferred that the characteristic features of the learning outcomes envisaged in the curriculum 2013 are clear to majority of teachers who are teaching in Class IV. At the same time, a significant percentage of teachers need more clarity.

1 (b) Most of the teachers have got clear idea about the characteristic features of the learning outcomes envisaged in the curriculum 2013. Others need more clarity about the following features.

- Short term and long term achievement
- Activity oriented learning outcomes
- Values, attitudes and social commitment
- Inclusive learning
- Life skill oriented education
- Problem solving attitude

Ensuring the attainment of expected learning outcomes

The teachers are asked to mark their opinion regarding the ensuring of attainment of expected learning outcomes through the transaction of content as ‘Yes’ or ‘No’. The responses obtained from teachers of Standard IV were tabulated and analyzed. The result showing the percentage of teachers who ensure and do not ensure the attainment of expected learning outcomes through the transaction of the content are given in Table.1.2.

Table: 1.2

Ensuring the attainment of expected learning outcomes

Statement	Responses in percentage	
	Yes	No
Ensuring the attainment of the expected learning outcomes in all learners through the transaction of the content	16.47	83.53

Majority of teachers (83.53%) teaching in Standard IV opined that they cannot ensure that all learners have attained the expected learning outcomes which are aimed through the

transaction of the content. Only 16.47 % of teachers could ensure that all learners attained the expected learning outcomes aimed through the transaction of the content.

Therefore it can be inferred that majority of the teachers (83.53%) are of the opinion that learners couldn't achieve the expected learning outcomes to be aimed through the transaction of the content. Only a considerable percentage is of the opinion that the learners could achieve the same.

2(b) Analysis regarding the learning outcomes, some of the teachers opined that students attained the expected learning outcomes through the transaction of the lessons, but most of the teachers suggested some effective methods for achieving the learning outcomes in an effective way. They are:-

- *Extended reading*
- *Extended activities*
- *Simplification*
- *Collaborative learning*
- *Scaffolding*
- *Peer learning*
- *Remedial teaching*
- *Reflection note*
- *Utilization of suitable learning materials*
- *Innovative methods*
- *Team teaching*
- *Special training*
- *Use of smart classroom*
- *SRG*
- *Support from parents*

Differentiating short term and long term learning outcomes

The teachers were asked whether they could differentiate between the short term and long term learning outcomes given in the Textbook as 'Yes' or 'No. The responses given by the teachers are collected and analyzed. The result obtained is given in Table 1. 3

Table: 1.3

Differentiating short term and long term learning outcomes

Statement	Responses (%)	
	Yes	No
Differentiate between the short term and long term learning outcomes	27.65	72.35

From the Table 1.3, it is clear that majority (72.35%) of teachers teaching in Class IV couldn't differentiate between short term learning outcomes and long term learning outcomes. Only 27.65% of teachers could differentiate between short term and long term learning outcomes.

Therefore it is inferred that majority (72.35%) of teachers of Standard IV couldn't differentiate between short term and long term learning outcomes whereas only a significant percentage (27.65%) was able to differentiate it.

Spiraling of learning outcomes to ensure continuity and growth

The teachers were asked whether the learning outcomes are arranged in such a way to ensure the continuity and development of it from the lower to higher classes. The responses marked by the teachers are as 'Yes' and 'No'. The result collected and analyzed is given in Table 1.4

Table: 1.4

Spiraling of learning outcomes to ensure continuity and growth

Statement	Responses in percentage	
	Yes	No
Spiraling of learning outcomes to ensure continuity and growth	88.82	11.18

From Table 1.4, it is clear that a great majority (88.82%) of teachers of Standard IV agreed that the learning outcomes are arranged in such a way as to ensure the continuity and development of it from lower to higher classes. It is also noted that a considerable percentage (11.18%) of teachers disagree to the fact that learning outcomes are arranged in such a way to ensure the continuity and development of it from lower to higher classes.

Thus it can be inferred that majority of the teachers agreed that the learning outcomes are arranged in such a way to ensure the continuity and development of it from the lower to higher classes. But a considerable percentage (11.18%) has a difference in opinion.

4(b) Majority of teachers reported that the learning outcomes are arranged in such a way to ensure the continuity and development of it from the lower class to higher class. Those who were against this opinion have suggested the following changes:-

- Local text or local resources can be used
- In some of the learning outcomes, spiraling is not ensured
- Text should follow simple to complex method
- The content of the text book has to be reduced
- Teachers should be given more time to process the activities.

Observable and measurable learning outcomes given in different units

Teachers of Standard IV were asked whether the learning outcomes given in different units are observable and measurable. The teachers responded to the question as ‘Yes’ or ‘No’ and it was collected and analyzed. The percentage of teachers who responded to this question is recorded in Table 1.5.

Table 1.5

Observable and measurable learning outcomes given in different units

Statement	Responses in percentage	
	Yes	No
Observable and measurable learning outcomes	86.47	13.53

The Table 1.5 shows that a great majority of teachers (86.47%) of Standard IV opined that the outcomes given in different units are observable and measurable whereas 13.35% has a difference in opinion.

From this it can be inferred that though majority of the teachers (86.47%) agree that the outcomes given in different units are observable and measurable but a considerable (13.53%) of the teachers do not agree to it.

Acquisition of ideas/ skills from each unit through the learning outcomes

The teachers were asked whether they could understand the ideas/ skills to be acquired from each unit through the learning outcomes. The responses collected were analyzed and recorded in Table 1.6.

Table 1.6

Acquisition of ideas/ skills from each unit through the learning outcomes

Statement	Responses in percentage		
	To a great extent	To some extent	Not at all
Understanding the ideas/ skills to be acquired from each unit through the learning outcomes	72.94	27.06	00.00

As per the Table1.6, majority (72.94%) of teachers of Standard IV agreed to a great extent level that they understood the ideas/skills acquired from each unit of the Textbook through the learning outcomes whereas 27.06% agreed to some extent level.

From this it can be inferred that 27.06% of the teachers couldn't understand the ideas/skills acquired from each unit of the Tex book through the learning outcomes. At the same time, majority of the teachers were able to understand the ideas/skills.

Learning outcomes according to the age-level of learners

The teachers were asked to opine whether the learning outcomes are given according to the age- level of the learners as 'To a great extent' or 'To some extent'. The responses obtained from teachers were tabulated and analyzed. The result showing the percentage of teachers who responded are given in Table1.7.

Table 1.7

Learning outcomes according to the age-level of the learners

Statement	Responses in percentage		
	To a great extent	To some extent	Not at all
Learning outcomes are given according to the age-level of the learners	48.82	51.18	00.00

The Table 1.7 shows the opinion of teachers whether the learning outcomes are given according to the age-level of the learners. 48.82% of teachers of Class IV agreed to a great extent that learning outcomes are according to the age level of the learners whereas a 51.18% agreed to some extent that learning outcomes are given according to the level of the learners.

So it can be concluded that the distribution of learning outcomes in different units of Class IV are according to the level of the learnersto some extent according to 51.18% of

teachers whereas nearly half percentage (48.82%) opined the distribution of learning outcomes to large extent.

Learning outcomes helpful for self-evaluation

The teachers are asked to respond whether the learning outcomes given in Textbook are helpful for self-evaluation. The responses were marked as ‘To a great extent’ and ‘to some extent’. The responses obtained were tabulated and analyzed. The result showing the percentage of teachers who responded are given in Table 1.8

Table 1.8
Learning outcomes helpful for self-evaluation

Statement	Responses in percentage		
	To a great extent (%)	To some extent (%)	Not at all(%)
Learning outcomes are helpful for self-evaluation.	42.35	57.65	00.00

The Table 1.8 shows that 57.65 % of teachers of Class IV recorded that learning outcomes are helpful for self-evaluation only to a some extent. On the other hand, it is noted that 42.35% of the teachers responded that the learning outcomes are helpful for self-evaluation to a great extent.

From this it can be inferred that 57.65%percentage of teachers reported that learning outcomes are helpful for self-evaluation to some extent and 42.35% to a great extent.

Time bound completion of learning outcomes.

The responses regarding the possibility of time bound completion of the learning outcomes is recorded as ‘Yes’ or ‘ No’. The responses are tabulated and analyzed. The percentage of responses is given in Table 1. 9

Table 1.9
Time bound completion of learning outcomes

Statement	Responses in percentage		
	Yes	No	Total
Whether the time bound completion of the given learning outcomes is possible?	35.29	64.71	100.00

From the Table 1.9, it is found that 64.71% of teachers of Standard IV reported that the time bound completion of learning outcome is not possible in the case of text books of Class IV. Only 35.29 % of teachers agreed that time bound completion of learning outcomes is possible in Class IV.

From this it can be inferred that majority of the teachers(64.71%) found difficulty in the time bound completion of learning outcomes. It is found that 35.29% of teachers did not find difficulty.

9(b). Only some of the teachers opined that they can complete the learning outcomes in a stipulated time while majority replied that due to the following reasons they couldn't complete the learning outcome in a time bound manner.

- Overloaded content
- Lack of time
- Time bound completion of learning outcomes couldn't be done when the teacher engages inextracurricular activities.
- Overcrowded classrooms
- Duration of the periods should be increased.
- Different level of learners
- Family background of the learners
- Difference between the language used in the text and the local language
- CWSN
- Delay in supply of textbooks
- English textbook is not in sync with the level of the learners.

Outcome focused methodology to ensure the level of learning proposed by RTE

The teachers were asked to record their opinion whether the outcome focused methodology is helpful in ensuring the attainment of level of learning envisaged by RTE. Their responses were recorded as 'Yes' or 'No'. The responses are tabulated and analyzed is given in Table 1.10.

Table 1.10

Outcome focused methodology to ensure the level of learning proposed by RTE

Statement	Responses in percentage		
	Yes	No	Total
Outcome focused methodology helpful in ensuring the attainment of level of learning envisaged by RTE	88.82	11.18	100.00

The Table 1.10 shows that a great majority of teachers (88.82%) agree with the opinion that the outcome focused methodology is helpful in ensuring the attainment of level of learning envisaged by RTE whereas it is noted that a considerable percentage (11.18%) do not agree to it .

From this it can be inferred that even though majority of teachers (88.82%) opined that the outcome focused methodology is helpful in ensuring the attainment of level of learning envisaged by RTE, a considerable percentage(11.18%) of teachers did not agree to it.

II. Learning Resources

The teachers teaching in Standard IV were asked to mark their responses regarding the learning resources such as Textbook, Teacher text, other facilities in the school etc. The responses were collected and analyzed. The results are given under the subheadings.

The responses of teachers are analyzed and the results are given under various subheadings.

Features of the Textbook

The teachers were asked to mark their opinion regarding different features of the Textbook as 'Agree" and "Disagree". The responses obtained from teachers were tabulated and analyzed. The result showing the percentage of teachers agreed or disagreed to different features of text book is given in Table 2.1.

Table 2.1
Features of the Textbook

Statements	Agree (%)	Disagree (%)
a) Content appropriate to the level of the learners	84.12	15.88
b) Conceptual Clarity	92.35	7.65
c) Adequate learning activities are given in the Text book to achieve the learning outcomes	84.71	15.29
d) Language appropriate to the level of learners	82.94	17.06
e) Pictures, lay-out, etc., arouse interest in the learners	91.18	8.82
f) Activities considering different level of learners	56.47	43.53
g) Adequate follow up activities are mentioned	88.24	11.76
h) Opportunity to foster the creativity of learners	90.00	10
i) Units are framed considering the possibilities of varied learning strategies	93.53	6.47
j) Concepts are arranged spirally	87.06	12.94
k) Slots for ICT are given for effective learning	88.82	11.18
l) Adequate activities are given in appropriate situations to enhance values and attitudes in learners	90.59	9.41

From the Table 2.1, it is found that among the different characteristics of the Textbook, a great majority of teachers (greater than 90%) reported that units have conceptual clarity, adequate learning activities are given in the Text book to achieve the learning outcomes, pictures, lay out, etc. arouse interest in learners, opportunity is provided to foster the creativity of learners, units are framed considering varied learning strategies. They also opined that opportunities are there to enhance creativity of learners and follow-up activities are mentioned. Majority of teachers (70-90%) agreed that the content of the Text book is appropriate to the mental level of the learners, learning activities are adequate in the Text book to achieve the learning outcomes, adequate follow up activities are mentioned in the text book, Concepts are arranged spirally. They also opined that slots for ICT are given in the Textbook for effective learning whereas only 56.47% of teachers opined that activities are given considering the different levels of learners. It is also found that 17.06% of the teachers opined that language is not appropriate to the level of learners

while 15.29% of the teachers were of the opinion that adequate learning activities are not given in the Textbook to achieve the learning outcomes.

Even though majority of teachers favors most of the characteristics of the Textbook such as conceptual clarity, adequate learning activities are given in the Textbook to achieve the learning outcomes, pictures, lay out, etc. arouse interest in learners, opportunity is provided to foster the creativity of learners, units are framed considering varied learning strategies 43.53% of teachers opined that those activities considering different levels of students are not present in the Text books of Standard IV. According to a significant number of teachers, learning activities are not adequate enough to achieve the learning outcomes, concepts are not arranged spirally, the content and the language used is not appropriate to the level of learners. (Reduce the content and use language suitable for the age level of learners)

Analysis regarding the Text book of Standard IV and suggestions of the teachers

The teachers were asked to suggest difficulties experienced by them in the various areas mentioned above. The difficulties given by them are listed below.

Some of the teachers do not agree with the learning activities given in the Textbook for differently abled students. The reasons they reported are

- Many lessons are too difficult to transact
- Lack of activities for catering inclusive learning

Most of the teachers do not agree that the language used in the TB is up to the level of the Standard IV students. The reasons reported are,

- Difficult vocabulary which leads to lack of interest in reading among students
- Lack of previous knowledge.

In the area, appropriateness of the content for the intellectual level of the students, most of the teachers disagreed. The reason stated is

- The content is above the level of the students of standard 4

Most of the teachers disagree that the layout and the pictures of the TB are attractive for the learners. The reasons highlighted are

- Lack of clarity
- Blurred pictures
- Low quality paper

A few teachers disagree that there is clarity in the content of the TB. The reasons are

- Difficulty in grasping the content properly due to difficult vocabulary and language.
- Ambiguity in the content.

A few teachers disagree with the fact that there are sufficient learning activities for the attainment of learning outcomes. The reason pointed out is

- Some of the learning activities are not focused on the desired by outcome.

Some of the teachers could not agree that hints/links are provided for effective ICT enabled learning. The reason is

- Provided links/hints in the TB are not accessible, suitable and appropriate.

A few teachers do not agree that there are ample opportunities for promoting creativity among students. The reason is

- Lack of extended activities for enhancing creativity.

A few teachers disagree that the learning resources are arranged in a spiraling manner. The reason pointed out is:

- The standard of the text activities in the first few units are above the standard of students
- Lack of previous knowledge.

A few teachers disagree that the possibilities of various teaching learning strategies are considered in the textbook. The reasons are

- Lack of opportunity for field trip
- Lack of local resources like library, expert session, etc.

A few teachers could not agree that sufficient activities to promote values and attitudes are given in appropriate situation. The reasons are

- The activities provided in textbook are from surrounding which the teachers are not familiar with.
- Lack of activities which cater the heterogeneous group of learners.

Features of Teacher Text of standard IV

The teachers are asked to mark their responses regarding the different features of the teacher text as 'Yes' or 'No'. The responses obtained from teachers of standard IV were tabulated and analyzed. The result showing the percentage of teachers agreed or disagreed to different features of teacher text are given in Table 2.2

Table 2. 2
Features of Teacher Text of standard IV

Statements	Responses in percentage	
	Yes	No
1. Text book and the teacher text are complementary to each other	92.35	7.65
2. Hints given are helpful for transacting content	92.35	7.65
3. Helpful in preparing TM	87.65	12.35
4. Specific instructions are given for CE and TE	93.53	6.47
5. Additional information for the transaction of the lessons are given	81.76	18.24
6. Suitable tools for evaluation are given	93.53	6.47
7. Reference books and different web sites given in the teacher text are helpful for the transaction of lessons	86.47	13.53
8. Periods allotted for each unit are sufficient for its transaction	36.47	63.53
9. Clarifies right-based education as envisaged by RTE Act	91.18	8.82
10. Helps the teacher in attaining clarity in the general approach of the curriculum	92.94	7.06
11. Provides clarity in professional ethics to be practiced by teachers	91.76	8.24

Table 2.2 revealed that, among the different aspects of the teacher text a great majority of teachers (90% and above) of standard IV reported that the Text book and the teacher text are complementary to each other, hints given in the teacher text are suitable for transacting lessons, specific instructions are given for TE and CE, suitable tools for evaluation are given, clarifies right-based education as envisaged by RTE Act, helps the teacher in attaining clarity in the general approach of the curriculum.

According to majority of teachers (80%-90% in teacher text additional information is provided for the suitable transaction of the lesson and instructions are given in teacher text for CE and TE, reference books and different web sites given in the teacher text are helpful for the transaction of lessons

It is noteworthy that 63.53% of teachers reported the division of periods for each unit is not suitable for its transaction. A considerable percentage of teachers opined that teacher

text is helpful in preparing TM, 18.24% is of the opinion that additional information for the transaction of the lessons are given in the TT.

From the results it can be inferred that, even though majority of teachers supports the teacher text of class IV in many aspects like specific instructions are provided for TE and CE, suitable tools for evaluation are given helps teacher in attaining clarity in the general approach of the curriculum .It is noted that 63.53% teachers reported that the division of periods given in teacher text is not suitable for its transaction.

The following are the suggestions and apprehensions shared by the teachers with regarding to teacher text

Most of the teachers disagree that the periods allotted for each unit are sufficient for the transaction of lessons. The reasons are

- *Lack of time for processing discourses.*
- *Lack of examples in Teacher Text*
- *Lack of scoring key in mathematics text*
- *Lack of time*
- *Lack of periods*
- *Lack of periods for Mathematics and English*
- *Need more time*

A few teachers disagree that the given hints are helpful for the transaction of TB. The reasons are

- *Text related hints are not clear*
- *Lack of conceptual clarity in TT*
- *Lack of explanation for certain areas in the CB.*

A few teachers could not agree that the hints given in the TT regarding the reference books and sites are helpful to the teachers in the transaction of TB. The reasons are

- *Lack of reference books suggested in the TT*
- *Lack of facility for visiting sites*
- *Lack of available of reference books.*

A few teachers do not agree that proper instructions are given for CE and TE in the TT. The reasons given here are

- *Lack of proper training/awareness in CE*
- *Lack of time for recording CE*
- *Lack of proper instructions for CE related to each discourse*
- *Ambiguity in CE and TB.*

Some of the teachers do not agree that TT is resourceful for the preparation of TM. The reasons are

- *Lack of additional resources*
- *Lack of sample teaching normal*
- *Lack of instructions for the preparation a tm.*

A few teachers do not agree the teacher text and TB are complementary. The reasons pointed are

- *Lack of details in TT*
- *Lack of clarification of hard spots*
- *Lack of link talks and discussion points.*

Some teachers disagree that additional information given for better transaction of TB is sufficient. The reason stated is

- *Clarifications regarding the cultural and historical backgrounds of the literacy pieces provided in the TB are not given in TT.*

Some teachers could not agree that appropriate evaluation tools are provided in the TT.

The reason is

- *Appropriate evaluation tools are not incorporated in TT.*

Very few teachers disagree that there is clarity in Right based education envisaged by RTE in TT.

Facilities available in the school

The teachers are asked to mark their responses regarding facilities in the schools as "Yes" or "No". The responses obtained from teachers were tabulated and analyzed. The result showing the percent of teachers agreed or disagreed to different features of teacher text are given in Table 2.3

Table: 2. 3.

Facilities available in the school

Facilities	Responses in percentage
a. Science lab	52.35
b. ICT	82.94
c. Science club	66.47
d. Science corner	53.53
e. Reading corner	90.00
f. Mathematics lab	46.47
g. Display board	74.71
h. Mathematics club	65.88
i. Mathematics corner	54.12
j. Social science lab	31.18
k. Language lab	60.00
l. Social Science club	48.82
m. Social Science corner	36.47

From table 2.3, it is found that majority of the schools (80%-90%) are equipped with reading corners and ICT facilities as per the opinion of the teachers. About 74.71% opined display boards are there in most of the schools. At the same time, only 40-50% of the schools are equipped with science lab, science corner, mathematics corner and social science club. It is also noted that only 31.18% of the schools have social science lab and social science corner is provided only in 36.47% of the schools.

It can be inferred that the facilities pointed out by great majority of teachers are reading corners, ICT facilities, display boards, science club, science lab, mathematics club and reading corner. The facilities such as Social Science club and Mathematics lab are reported only by nearly half of the teachers.

Provisions to utilize instructional facilities available in schools

Teachers are asked to report the provisions to utilize facilities such as lab, library, ICT, Display board, Magazines, Club and corner. The results obtained are explained under three headings

- 1) Emphasis of Facilities in the content of the lesson
- 2) Necessary instructions to utilize facilities are given in TT
- 3) Facilities can be utilized in leaning activities

Emphasis of facilities given in the content of the lesson in TB

The teachers are asked to mark their responses regarding the importance of facilities given in the content of the lesson as ‘to a great extent, to some extent and not at all’. The responses obtained from teachers were tabulated and analyzed. The result showing the percent of teachers regarding their response to the importance of facilities are given in Table2.4

Table 2.4

Emphasis of facilities given in the content of the lesson in TB

Facilities	To a great extent(%)	To some extent(%)	Not at all(%)
Lab	40.59	40.00	2.94
Library	60.00	30.59	0.00
ICT	58.24	34.12	0.00
Display board	45.29	37.65	1.18
Periodicals	44.71	42.94	0.59
Club	33.53	48.24	1.76
Corner	50.59	35.88	1.76

Table2.4 revealed that 60.00% and 58.24% of teachers reported that the content in the text book of standard IV has given importance to utilize library and ICT to a great extent level while above 35% opined to some extent to these facilities. About 40 to 50% of teachers reported that content in the text book has given importance to great extent to make use of corner, display boards, periodicals and lab while 30 to 40% of teachers opined to some extent level. More than 30 % of teachers reported that content in the text book has given

importance to a great extent for utilizing facilities such as club while about 45% of teachers opined them to some extent level. It is noted that a very few percentage of teachers has not at all responded.

Inference: Though more than half of teachers (45% and above) reported that the content in the text book of class IV has given emphasis to great extent level to facilities like library, ICT, display board, periodicals and corner nearly 45% and above percentage of the teachers reported that emphasis given to lab and club in the content of the lesson to some extent. It is significant to note that a very few percentage has not all responded.

Necessary instructions to utilize facilities

The teachers are asked to mark their responses regarding the adequacy of instructions given in TT about the facilities 'To a great extent, To some extent and Not at all'. The responses obtained from teachers were tabulated and analyzed. The result showing the percentage of teachers regarding their response to the adequacy of instructions are given in Table 2.5

Table 2.5
Necessary instructions to utilize facilities

Facilities	To a great extent(%)	To some extent(%)	Not at all (%)
Lab	52.94	24.71	2.35
Library	61.76	25.29	0.00
ICT	65.29	24.12	0.00
Display board	42.35	34.71	2.35
Periodicals	38.24	40.00	2.94
Club	42.35	34.12	1.18
Corner	46.47	30.00	1.18

Table 2.5 revealed that more than 60% of teachers reported that suitable instructions are given in TT to make use of ICT and library to a great extent level while 25% opined that there are provisions for making use of these to some extent level. It is noted that 40-50% of teachers reported that suitable instructions are given in TT to make use of lab, display board, corner and club to a great level whereas below 30% of teachers reported to some extent level.

Inference: Though more than 40% teachers (42.35% and above) reported that necessary instructions are provided in TT to a great extent to utilize facilities such as Lab. Library and ICT about 25% of the teachers reported that instructions are provided in the TT to utilize ICT Library and lab to some extent only.

Utilization of facilities

The teachers are asked to mark their responses regarding the utilization of the facilities in learning activities as 'To a great extent', 'To some extent' or 'Not at All'. The responses obtained from teachers of class IV were tabulated and analyzed. The result showing the percentage of teachers for the different responses for the utilization of the facilities in learning activities are given in Table 2.6

Table 2.6
Utilization of the facilities

Facilities	To a great extent (%)	To some extent (%)	Not at all (%)
Lab	39.41	35.29	2.94
Library	51.18	34.12	0.00
ICT	47.65	39.41	1.18
Display board	41.76	34.71	2.35
Periodicals	33.53	47.06	0.59
Club	34.12	41.76	1.76
Corner	44.12	32.35	1.18

Table 2.6 revealed that more than 40- 50% of teachers reported that the following facilities can be used for providing learning activities to great extent level: Library (51.18%), ICT(51.18%), Corner(44.12%) and display board (41.76%) while more than 40% of teachers opined that they make use of club(47.06%), and club (41.76%) for Providing learning activities to some extent level. Below 40% of teachers opined that the facilities such as lab (49.68%), Club (48.06%) corner (48.39%) and library(44.19%) are used to a great extent level for providing learning activities. More than 42% of teachers reported that they make use of lab(39.41%), club(34.12%) and periodicals (33.53%) to some extent level .

From this it can be inferred that the facilities such as lab, library, ICT, display board, magazine, club and corner are used in schools only to some extent level for providing learning activities to students.

Analysis regarding the limitations of the facilities available in the schools and suggestion for betterment of the same

The teachers are asked to note their limitations experienced by them in the various areas mentioned above. They are also asked to give their suggestions to overcome the limitations. The limitations and the suggestions given by teachers are presented below.

Lab

- Lack of space
- Lack of time
- Lack of physical facilities
- Lack of equipment
- Lack of training in maintaining lab

Suggestions

- Provide space
- Improve physical facilities
- Provide training
- Supply of materials mentioned in the text books
- Use school grants
- Provide cupboards and shelves
- Supply of materials by SSA
- Separate lab for Mathematics and Social science
- Provide separate room to keep equipment

Library

- Lack of books
- Lack of space
- Lack of reference books
- Lack of time
- Lack of periodicals, magazines, journals etc.
- Lack of librarian

Suggestions

- Provide more books
- Appoint librarian
- At least 5 copies of text books and teacher text should be there in the library
- Provide books based on lessons
- All books published by SCERT should be there in the library

- Provide more reference books
- Number of story books and poems should be increased
- Ensure the Cooperation of community members

ICT

- Lack of trained teachers
- Lack of space
- Computers are not working
- Lack of computers and other equipment
- Lack of resource materials
- Lack of smart class rooms
- Lack of time
- Lack of knowledge
- Lack of internet

Suggestions

- Electrify class rooms
- Provide separate period
- Provide more periods
- Make all classes as smart class rooms
- Provide more resource materials
- Provide one projector in one class
- Supply of laptops to teachers
- Provide more number of computers with net facility
- Government aid is needed
- At least one computer for 5 students

Display board

- Lack of availability
- Lack of space
- No display board

Suggestions

- Government should supply fund
- Provide side boards

- Find new resources

Periodicals

- Lack of space
- Lack of availability
- No periodicals
- Lack of fund

Suggestions

- Need more periodicals
- Utilization of teacher grant and school grant
- Help at Panchayath level
- Collect more funds

Club

- Lack of space
- Lack of time
- Abundance of activities
- Number of members are not enough

Suggestions

- Preparation of modules for clubs
- Find sponsors

Corner

- Lack of resources
- Not regular
- Lack of space
- Lack of physical facilities

Suggestions

- Find more resources
- Cooperation of parents
- Provide separate rooms
- Preparation under the leadership of lsg

Resources other than the textbook and the teacher text for ensuring learning outcomes

The teachers are asked to mark their responses regarding resources other than the textbook and the teacher text for ensuring learning by putting tick marks. The responses obtained from teachers of standard IV were tabulated and analyzed. The result showing the percentage of teachers' responses regarding the resources other than the textbook and the teacher text for ensuring learning outcomes are given in Table 2.7

Table 2.7
Resources other than the textbook and the
teacher text for ensuring learning outcomes

Materials	Responses in percentage
a. Reading materials prepared by the teacher	91.76
b. Local resources	85.29
C. Resource CDs' (video, audio)	87.06
d. Pictures	92.35
e. Tables	87.65
f. Diagrams	51.76
g. Reports	65.29
h. Worksheets	84.71
i. Materials given by local government and other agencies	50.00
j. Others (specify)	14.12

From the table 2.7 it is found that a great majority of teachers reported that they use pictures (92.35%) other than TB and TT. Majority of teachers (60%-89%) reported that they are using reading materials prepared by themselves, worksheets, tables and local resources. Only a half percentage of the teachers use the materials given by local government and other agencies.

From the analysis, it can be inferred that majority of teachers use a variety of materials like pictures materials prepared by themselves, worksheets, tables and local resources other than TT and TB are used by teachers for teaching and learning.

The Teachers were asked to suggest additional materials other than the enlisted materials in the questionnaire to ensure learning outcomes.

The suggestions given by them are listed below.

Most of the teachers opined that they use

- *Magazines,*
- *Field trips*
- *Paper cutting*
- *Gifts for encouragements*
- *Daily news quiz*
- *Videos*
- *Pictures*
- *Short notes*

Adaptation for CWSN

The teachers are asked to mark their responses regarding the materials which helped them in the adaptation for the CWSN by putting tick marks. The responses obtained from teachers of standard IV were tabulated and analyzed. The result showing the percentage of teachers' are given in Table 2.8

Table 2.8
Adaptation for CWSN

Materials	Responses in Percentage
a. Textbook	55.88
b. Teacher Text	52.35
c. Infrastructure	60.59
d. Resource teachers	64.71

It is found from table 2.8 that 64.71% of the teachers reported that resource teachers help them in the adaptation for the CWSN and 60.59% by Infrastructure, text books (55.88%), teacher text(52.35%) .

From this it can be inferred that majority of the teachers are of the opinion that resource teachers mainly provide help in the adaptation of CWSN. About half percentage opined that textbooks and teacher text are helpful in the adaptation

The following are the different materials used by the teachers of fourth standard for the adaptation of CWSN

- Games
- Interesting learning resources
- Provide pictures for colouring
- Special training for teachers
- Ensure the assistance of peer group
- Ensure resource teachers
- Provide interesting worksheets
- Ensure participation of parents

Teaching learning resources in the area of art

Responses of the teachers after the evaluation of teaching learning resources for art education is presented in Table 2.9

Table 2.9
Teaching learning resources in the area of Arts

Statements	Arts		
	To a great extent (%)	To some extent (%)	Not at all (%)
• Suitable situations for transaction are given in the textbook	68.10	30.06	1.84
• Instructions are there to frame necessary resources in the TT of different subjects	65.03	33.74	1.23
• The school is well equipped to carry out these activities	16.56	71.78	11.66
• Able to make available local resources in these areas	19.63	55.83	24.54
• Able to make use of teacher text for these areas	42.33	46.01	11.66
• Able to make use of activity books	25.15	49.69	25.15

Based on the table 2.9 it is found that 68.10% of teachers opined that in the text book there are suitable situations for transaction and 65.03% opined that instructions are there to frame necessary resources in the TT of different subjects to a great dimension. It is noted that more than 40% opined that they were able to make use of teacher text for these areas and 25.15% of them were able to make use of activity books to a great level. At the same

time it is noted that only less than 25% were able to make available local resources in these areas and the same percentage reported that the school is well equipped to carry out these activities to a great extent level. It is noted that 40-55% of teachers opined they were able to make available local resources in these areas, able to make use of activity books and able to make use of teacher text for these areas to some extent level. About 72% were of the opinion that the school is well equipped to carry out these activities to some extent level. 33.74% of teachers reported that instructions for framing necessary resources for art education are there in TT to some extent level whereas 30.06% are of the opinion that suitable situations for transaction are there to some extent level.

It can be inferred that teaching learning resources in the area of arts are present in the TT only to some extent level.

Teaching learning resources for sports and health education

Response of the teachers after the evaluation of teaching learning resources for sports and health education is presented in Table 2.10

Table: 2.10
Teaching learning resources in the area of Sports - health

Statements	Sports – health		
	To a great extent (%)	To some extent (%)	Not at all (%)
• Suitable situations for transaction are given in the textbook	42.94	53.37	3.68
• Instructions are there to frame necessary resources in the TT of different subjects	44.17	45.40	10.43
• The school is well equipped to carry out these activities	30.06	60.74	9.20
• Able to make available local resources in these areas	19.63	52.76	27.61
• Able to make use of teacher text for these areas	32.52	49.69	17.79
• Able to make use of activity books	23.93	46.01	30.06

Based on the table 2.10 it is found that above 40% of teachers opined that suitable situations for transaction are given in the textbook and they also opined that instructions are there to frame necessary resources in the TT of different subjects for Sports and Health to

a great extent dimension while above 45% teachers opined to some extent level. About 30.06% of teachers reported that school Is well equipped to carry out these activities to a great extent level and It Is noted that 60.07% opined that the school Is not well equipped to carry out these activities to some extent level. Only 19.63% teachers opined that they were able to make available local resources in these areas in the school to great extent whereas 52.76% to some extent level. About 32.52% of teachers reported that they make use of TT for these areas to great extent level while about 49.69% to great extent level. About 46.01% of teachers reported that they make use of activity book to a some extent level whereas 23.91% teachers opined to great extent level.

It can be inferred that teaching learning resources in the area of sports and health are present in the TT only to some extent level.

Teaching learning resources for sports and health education

Response of the teachers after the evaluation of teaching learning resources for work experience is presented in Table 2.11

Table: 2.11

Teaching learning resources in the area of Work experience

Statements	Work experience		
	To a great extent (%)	To some extent (%)	Not at all (%)
• Suitable situations for transaction are given in the textbook	63.19	33.74	3.07
• Instructions are there to frame necessary resources in the TT of different subjects	58.28	36.20	5.52
• The school is well equipped to carry out these activities	32.52	54.60	12.88
• Able to make available local resources in these areas	20.25	50.31	29.45
• Able to make use of teacher text for these areas	38.04	46.63	15.34
• Able to make use of activity books	25.15	45.40	29.45

Based on the table 2.11 it is found that 63.19% of teachers opined that suitable situations for transaction are given in the area related to work experience are provided in the TT to a great extent dimension while 33.74% opined to some extent level. About 58.28% of teachers reported that instructions for framing necessary resources are provided in TT of different subjects to great extent level and 36.20% teachers to some extent. Above 55% teachers opined that the school is well equipped to carry out these activities whereas, 32.52% agree to some extent only. It is noted that only 20.25% of the teachers were able to make available local resources in these areas whereas 50.31% were able only to some extent level. About 38.04% of teachers reported that they make use of TT for the area to great extent level while 46.63% to great extent level. Only 25.15% of teachers reported that they make use of activity books to great extent level and 45.16% teachers opined to some extent level. It is noted that 29.45% do not make use of the activity books at all and the same percentage do not make use of the available local resources in these areas.

It can be inferred that teaching learning resources in the area of work experience are present in the TT only to some extent level.

Analysis regarding the limitation and suggestion for improvement in the area of art, sports, health and work experience

Art

The Teachers were asked to note their limitations experienced by them in the various areas mentioned above. They are also asked to give their suggestions to overcome the limitations. The limitations and the suggestions are presented below.

Art /Limitations

- Lack of trained teachers
- Lack of space
- Lack of local resources
- Lack of music, dance teachers
- lack of interest in students
- Lack of time
- Lack of modern equipment

Suggestions

- Appoint trained teachers
- Provide training at cluster level
- Provide awareness to parents
- Seek the service of artists
- Allot separate period for art
- Provide teachers at CRC level
- Appoint teachers at Panchayath level
- Provide more periods

Sports / Limitations

- Lack of ground
- Lack of equipment
- Lack of trained teachers
- Lack of space
- Lack of understanding

Suggestions

- Provide ground
- Appoint Physical education teachers
- Provide training
- Use the ground of neighboring school
- Include 'Yoga'

Health/Limitations

- Lack of experts
- Lack of medicines
- Lack of cleanliness
- Lack of modern equipment
- Lack of drinking water
- Lack of attention of parents
- lack of service of health resources

Suggestions

- Appoint separate persons
- Linking school with medical department
- Training to teachers
- Supply of hormone free eggs
- Conduct awareness programs
- Provide medicines

Work experience/Limitations

- Lack of trained teachers
- Lack of equipment
- Lack of knowledge
- Lack of local resources
- lack of time
- Lack of fund
- Lack of experience
- Lack of resource persons

Suggestions

- Appoint trained teachers
- Provide training to teachers
- Cooperation of PTA and MPTA
- Equip the backward students for self-employment
- Appoint RPs
- Evaluation of TE
- Provision of teachers art CRC level
- Provide work shops
- Improve physical facilities

Details of the products of the learning activities

The teachers are asked to mark their responses regarding the details of the products of the learning materials by marking 'Yes' or 'No' to the questions asked. The responses obtained from teachers of standard IV were tabulated and analyzed. The result showing the percentage of teachers' are given in Table 2.12

Table: 2.12

Details of the products of the learning activities

Items	Response in percentage	
	Yes	No
Evaluation of products	91.76	2.35
Encourages learners outstanding products	93.53	0.59
Utilizing the possibility of reusing the products	85.29	5.88

Table 2.12 reveals that regarding the products of the learning activities a great majority of teachers (greater than 90%) reported that they evaluated the products , encourage the learners outstanding products and 85.29% utilized the possibility of re-using the products . Only very few 5.88% of teachers opined that do not utilize the chance for the re-use of the products.

From this it can be inferred that majority of the teachers evaluate the products and also, they encourage the outstanding products. It is also inferred that they utilize the chance for the reuse of the products. A significant percentagenot utilize the chance for the re-use of the products(5.88%)and do not evaluate the products(2.35%)

Exhibition of the products

The Teachers were asked to note the places where they exhibit their learners' products. Their responses are collected and are given in table 2.13

Table: 2.13

Exhibition of the products

Places	Responses in percentage
Class	94.71
CPTA	64.12
Fares	61.76

Table2.13 .Regarding the observation on the exhibition of the products It Is found that a great majority of the teachers exhibit the learner's products in the class and a majority of them exhibit the products In Fares (61.76%) andCPTA (64.12%)

From this it can be inferred that the teachers exhibit the learner's products in theclass, CPTA, and fares.

III.Learning Process

The teachers were asked to mark their responses regarding the various learning processes that take place inside the classrooms. The responses of the teachers, in this section, for the Quantitative items were recorded as Yes / No, and Always/Sometimes/Not at all. The Qualitative responses were noted and listed the responses were collected and analyzed. The results are given under the sub-headings based on the subject of the teachers.

Difficulty experienced while planning learning activities in the classrooms

The responses obtained from teachers were analyzed and the result showing the percentage of teachers who responded is given in Table 3.1

Table 3.1

Difficulty experienced while planning learning activities in the classrooms

Statement	Responses in Percentage	
	Yes	No
Difficulty experienced while planning learning activities	59.41	40.59

From the table 3.1 it is clear that nearly 60% of the teachers find difficulty while planning the learning activities whereas 40.59% didn't.

From this, it can be inferred that 59.71% of teachers faced difficulty while planning the learning activities.

Thrust areas where difficulty is experienced while planning learning activities

The teachers, who indicated that they experienced difficulties while planning the learning activities, were asked to indicate their responses regarding the thrust areas where difficulty is experienced. The responses were analyzed and the results are given in Table 3.2

Table 3.2

Thrust areas where difficulty is experienced while planning learning activities

Thrust areas	Responses in percentage
a) Learning Outcomes	17.06
b) Integrating arts,sports, health and work experience	44.12
c) Life skills	16.47
d) Utilizing learning resources	11.18
e) Slots for ICT	28.24
f) Community bound activities	18.82
g) Values/attitudes	8.82
h) Learning of the different levels of learners	59.41
i) Continuous evaluation	17.06
j) Areas to develop social commitment	18.82

From the table 3.2 it is clear that the teachers of class IV faced difficulties in different areas. The thrust areas where the difficulties were faced, in the descending order are ‘Learning of the different levels of learners (59.41%) Integrating art, (44.12%) Slots for ICT(28.24%) , Community bound activities (18.82%), Areas to develop social responsibility(18.82%), Learning Outcomes(17.06%), Life Skills(16.47%), Utilizing learning resources(11.18%)Values/ Attitudes(8.82%).

Therefore it can be inferred that although the teachers experienced difficulty in various thrust areas, ‘Learning of the different levels of learners’, and ‘Integrating arts, sports, health and work experience’ are two thrust areas that posed difficulty to majority of teachers while planning the learning activities.

The Teachers were asked to suggest remedial measures to overcome difficulties experienced by them in the various areas mentioned above. The suggestions given by them are listed under appropriate heads. They are:-

- Previous knowledge has to be checked in order to ensure learning outcomes with in stipulated time.
- The learning outcomes are to be made more clear and simple in the teacher text.
- Along with class room teaching, children should be exposed to basic life skills.

- Some of them suggested that the school need to provide facilities for agriculture.
- Teachers suggest that equipment for providing special coaching are to be distributed in schools.
- Activities for fixing reading and writing are to be provided in the teacher text.
- Some of the teachers requested for inclusion of activities based on dialogue and communication in the text book.
- The instructional activities for different levels of learners are required.
- It is essential to provide materials for work experience.
- Some teachers are of the view that difficulties arise due to restricting the learning activities.
- More activities need to be included in the text book and in the teacher text.
- Few teachers say that the present text book deals with the child centered and teacher centered approaches simultaneously.They argue that any one approach should be concentrated upon.
- Due importance should be given to field trips.
- The text book and teacher text should give more activities.
- Majority of the teachers suggested that ICT training should be provided to all teachers for its effective use.
- Many teachers requested for converting the class rooms into smart class rooms.
- There are also complaints from some teachers that the internet facilities are not available.
- Required number of computers and their proper maintenance should be ensured.
- Additional reading materials need to be provided
- Classrooms should be provided with laptop facility
- Additional worksheets and workbooks need to be provided for differently abled learners.
- Some teachers are of the view that more learning resources are yet to be explored.
- Some teachers are of the view that they lack experience in extracurricular activities.
- Many teachers suggested that separate materials are to be provided for differently abled.
- Separate simple activities suitable for different levels of learners should be provided in the text book.

- The participation of gifted learners can be incorporated in helping the differently abled on a peer group basis.
- The service of resource teachers is essential. It is necessary to ensure the participation of different levels of learners in the learning activities.
- Extra talk and expert talk will help the differently abled.
- The necessary hints for helping the differently abled should be provided in the teacher text.
- Some are of the view that separate classes should be provided to the differently abled.
- Some teachers suggested that separate hand book and work sheets are essential for these learners.
- Separate strategies are essential in the case of differently abled for attaining the learning outcomes.
- Some teachers suggested that unit tests should be conducted frequently.
- CE should be conducted term-wise.
- Many teachers suggested that there is lack of time for conducting society related activities.
- Teacher has no provision to prepare the teaching module according to the level of the students.
- Agricultural activities should also be included.
- Need spacious play ground
- Need to put an end to all promotion
- Provide separate learning outcomes and activities for differently abled students.

Ensuring the development of process skills in learners through learning process

The teachers are asked to mark their responses regarding ensuring the development of process skills in learners through learning process. The responses were analyzed and the result showing the percentage of teachers who opined regarding the item is given in Table 3.3

Table 3.3

Ensuring the development of process skills in learners through learning process

Statement	Responses in Percentage	
	Always	Sometimes
Ensure the development of process skills in learners through learning process	16.47	83.53

The table 3.3 reveals the fact that 83.53% of the teachers of Class IV reported that process oriented skills in the learners through learning process is ensured only sometimes, whereas only 16.47% ensured the learners process oriented skills..

From this, it can be inferred that majority of teachers (83.53%) were not able to ensure the development of process skills in learners through learning process. Only a considerable percentage(16.47%) was able to ensure development of process skills in learners.

Planning and implementing learning activities to attain conceptual clarity through multi-sensory experiences

The teachers are asked to mark their responses regarding planning and implementing learning activities to attain conceptual clarity through multi-sensory experiences. The responses obtained from the teachers were analyzed and the result is given in Table 3.4

Table 3.4
Planning and implementing learning activities

Statement	Responses in Percentage	
	Yes	No
Plan and implement learning activities to attain conceptual clarity through multi-sensory experiences	87.65	12.35

It is clear from the table 3.4 that a great majority of the teachers (87.65%) of Class IV reported that learning process is planned and implemented to attain the conceptual clarity through multisensory experiences, whereas 12.35% negated this view.

From this, it can be inferred that though majority of teachers could plan the learning process in such a way as to get clarity of the content through multisensory experience, a significant percentage (12.35%) couldn't.

Appropriateness of the curriculum in enabling learners to apply the knowledge

The teachers are asked to mark their responses regarding appropriateness of the curriculum in enabling learners to apply the knowledge acquired through the learning process in their daily life. The responses obtained from the teachers were analyzed and the result showing the percentage of teachers who responded is given in Table 3.5

Table 3.5

Appropriateness of the curriculum in enabling learners to apply the knowledge

Statement	Responses in Percentage	
	Yes	No
Curriculum is appropriate for enabling learners to apply the knowledge acquired through learning process in their daily life	87.65	12.35

The table 3.5 reveals the fact that a great majority of teachers (87.65%) of Class IV reported that the curriculum is appropriate for enabling learners to apply the knowledge they have attained through the learning process in their daily life whereas ,12.35 % did not agree to it.

From this, it can be inferred that the curriculum is helpful to equip the learners to apply the knowledge he has attained through the learning process in his daily life in the view of the majority of teachers. But a significant percentage (12.35%) opined that the curriculum is not appropriate in enabling learners to apply the knowledge acquired through learning process in their daily life.

Making use of the learning strategies appropriate to the content

The teachers are asked to mark their responses regarding making use of the learning strategies appropriate to the content. The responses obtained from the teachers were analyzed and the result is given in Table 3.6

Table 3.6

Making use of the learning strategies appropriate to the content

Statement	Responses in Percentage	
	Yes	No
Make use of the learning strategies appropriate to the content	88.24	11.76

The table 3.6 shows that 88.24% of the teachers of Class IV reported that they could use appropriate learning strategies to the content, whereas 11.76% could not.

From this, it can be inferred that though majority of Teachers (88.24%) were able to use appropriate learning strategies to the content whereas a significant percentage (11.76%) of teachers were not able to make use of the learning strategies appropriate to the content.

Difficulties experienced while making use of learning strategies

The teachers, who indicated that they experienced difficulties while making use of learning strategies that are appropriate to the content, were asked to indicate their responses regarding the strategies that pose difficulties to them. The responses were analyzed and the results are given in Table 3.7

Table 3.7

Difficulties experienced while making use of learning strategies

Strategies that pose difficulty	Responses in percentage
a. Investigative learning	10.00
b. Method of content acquisition	1.76
c. Inductive thinking	3.53
d. Meta cognition	5.88
e. Co-operative learning	2.35
f. Collaborative learning	1.76
g. Critical thinking	7.06

From the table 3.7 it is clear that the teachers of the Class IV faced difficulty in the above said learning strategies. The learning strategies that were found difficult by the teachers of class IV to use according to the content, in the descending order of difficulty were investigative learning (10.00%), critical thinking (7.06%) meta cognition (5.88%), inductive thinking (3.53%), %, co-operative leaning (2.35%) method of content acquisition and collaborative learning (1.76%).

For Teachers of standard IV the learning strategies like Investigative learning and Meta cognition were the most difficult strategy faced by most of the teachers. Some teachers suggested that they felt difficulty in adopting the strategy – Socialization.

Reasons for experiencing difficulty while making use of appropriate learning strategies

The teachers were asked to express their responses regarding the reasons for experiencing difficulty while making use of appropriate learning strategies. The responses were analyzed and the results are given in Table 3.8

Table 3.8
Reasons for experiencing difficulty while making use of
appropriate learning strategies

Reasons	Responses in Percentage
Lack of time	73.53
Practical difficulty	35.29
Lack of facilities/materials	40.00
Lack of training	8.82

The reasons that were faced by the Mathematics Teachers for the difficulties they faced while using the learning strategies, as evident from the table..., were Lack of time (73.53%), Lack of facilities/materials (40.00%), Practical difficulty (35.29%) and Lack of Training (8.82%).

Therefore it can be inferred that 'Lack of time', 'Lack of facilities/materials' and practical difficulty were the major reasons that were mentioned by the Teachers of Class IV who indicated that they faced difficulty while making use of appropriate learning strategies.

Analysis regarding the reasons for experiencing difficulty in utilizing suitable learning strategies

Teachers also reported the following reasons for experiencing difficulty in utilizing suitable learning strategies:

- Difficulty in considering backward learners
- Small size of class rooms
- Lack of ICT facilities
- Poor infrastructure facilities
- Lack of knowledge on how to use computers
- Difficulty in content

Planning and implementing learning activities to overcome the constraints of slow learners

The teachers are asked to mark their responses regarding planning and implementing learning activities to overcome the constraints of slow learners. The responses were analyzed and the result is given in Table 3.9

Table 3.9
Planning and implementing learning activities to overcome
the constraints of slow learners

Statement	Responses in Percentage	
	Yes	No
Planning and Implement learning activities to overcome the constraints of slow learners	42.94	57.06

From the table 3.9 it is clear that 57.06 % of the teachers of class IV stated that they could not plan implement the learning activities to overcome the limitations of the slow learners, on the other hand only 42.94% were plan and implement the learning activities.

Hence it can be inferred that *more than fifty percentages of the Teachers could not plan and implement the learning activities to overcome the constraints of the slow learners.*

(ii) Reasons for experiencing difficulty while planning and implementing learning activities to overcome the constraints of slow learners

The teachers, who indicated that they experienced difficulties while planning and implementing learning activities to overcome the constraints of slow learners, were asked to indicate their responses regarding the difficulties they experienced. The responses were analyzed and the results showing the percentage of teachers, who marked the various difficulties, are given in Table 3.10

Table 3.10
Reasons for experiencing difficulty while planning and implementing learning
activities to overcome the constraints of slow learners

Reasons for difficulties	Responses in percentage
(a) Lack of time to plan and implement the activities for different levels of learners	28.82
(b) Remedial Teaching	14.71
(c) Lack of specially prepared learning materials	27.06
(d) Lack of time	36.47

The reasons reported by the Teachers of Class VII in planning and conducting learning activities to overcome the limitations of the slow learners as per the table 3.10 were Lack of time (36.47%), difficulties to plan and implement the activities for different levels of

learners (28.82%), lack of specially prepared materials (27.06%), difficulties in remedial teaching (14.71%)

Therefore it can be inferred that 'lack of specially prepared learning materials' and 'lack of time' were the reasons of difficulty that were mentioned by more than one third of the teachers of class IV while planning and implementing learning activities to overcome the constraints of slow learners.

Teachers of standard IV also suggested the following difficulties in planning activities to overcome the limitations of slow learners:

1. Present TB is not suitable for slow learners
2. Overcrowded classrooms
3. Lack of time for preparation
4. Gifted learners get bored
5. No cooperation from the parents
6. Lack of interest of learners

Ensuring attainment of learning outcomes in different levels of learners

The teachers are asked to mark their responses regarding ensuring attainment of learning outcomes in different levels of learners. The responses obtained from the teachers of standard IV were analyzed and the results are given in Table 3.11

Table 3.11

Ensuring attainment of learning outcomes in different levels of learners

Statement	Responses in Percentage	
	Yes	No
Ensure attainment of learning outcomes in different levels of learners	29.41	70.59

As evident from the Table 3.11 majority of the Teachers of Class IV (70.59%) were not able to ensure the attainment of learning outcomes in different level of learners, whereas only less than one-third (29.41%) were able to do so.

Hence it can be inferred that majority of the teachers of were not able to ensure the attainment of learning outcomes in different level of learners.

Analysis of responses regarding the difficulties experienced by teachers in ensuring learning outcomes satisfactorily for different levels of learners

The difficulties experienced by teachers in ensuring learning outcomes satisfactorily for different levels of learners are analyzed and they are:

- *Children do not regularly attend the class*
- *Lack of appropriate learning activities*
- *Lack of time*
- *Lack of specially prepared teaching learning materials*
- *Lack of awareness regarding the IQ of these learners*
- *Need adequate help from the support systems*
- *Couldn't give support to these learners every time.*
- *Learners find difficulty to imbibe the content*
- *Excessive learning activities*
- *Lack of interest among learners*
- *Family background*
- *There is lack of specially trained teachers which makes planning of the lessons difficult.*
- *The heterogeneity of these learners regarding their level of understanding is another issue.*
- *Many learners have no text books and also they are lacking the basic skills of reading and writing.*

Implementation of learning activities to enrich the abilities of gifted learners

The teachers are asked to mark their responses regarding implementation of learning activities to enrich the abilities of gifted learners. The responses obtained from the teachers were analyzed and the result is given in Table 3.12

Table 3.12

Implementation of learning activities to enrich the abilities of gifted learners

Statement	Responses in Percentage	
	Yes	No
Implement learning activities to enrich the abilities of gifted learners	75.88	24.12

More than 75% of the teachers of Class IV were able to implement the learning activities to enrich the abilities of gifted learners, whereas 24.12% could not.

Therefore it can be inferred that though majority of the teachers (75.88%) were able to implement learning activities to enrich the abilities of gifted learners, a significant percentage couldn't.

Reasons for experiencing difficulties in the implementation of learning activities to enrich the abilities of gifted learners

The teachers, who indicated that they experienced difficulties in the implementation of learning activities to enrich the abilities of gifted learners, were asked to indicate their responses regarding the difficulties they had. The responses were analyzed and the results are given in Table 3.13

Table 3.13

Reasons for Difficulties in the Implementation of learning activities to enrich the abilities of gifted learners

Reasons	Responses in percentage
(a) Difficulty in planning challenging learning activities	12.94
(b) Lack of suitable learning resources	5.29
(c) Lack of time	4.71
(d) Lack of training	0.00

The reasons highlighted by the teachers of Class IV for not implementing the learning activities to enrich the talents of Gifted Learners effectively as per the table 3.13 were 'Difficulty in planning challenging learning activities (12.94%), Lack of suitable learning resources (5.29% and Lack of time (4.71%).

Therefore it can be inferred that difficulty in planning challenging learning activities, lack of time and lack of suitable learning resources were the major reasons mentioned by teachers of class iv who indicated that they faced difficulties in the implementation of learning activities to enrich the abilities of gifted learners

Analysis based on remedial measures overcoming difficulties in enriching the abilities of gifted learners

Remedial measures suggested by the teachers for tackling the difficulties in enriching the abilities of gifted learners are listed below:-

- Provide suitable materials and provide training.

- Encourage the talented and utilize their talents to other students
- Include more activities in the text book
- Avoid loss of working days
- Decrease the number of outdoor activities
- Presence of differently abled learners in the class room
- Specify the activities for the gifted in the teacher text

Application of suitable learning strategies to ensure maximum participation of all learners

The teachers were asked to mark their responses regarding applying suitable learning strategies to ensure maximum participation of all learners. The responses obtained from teachers analyzed and the result showing the percentage of teachers who opined regarding the item is given in Table 3.14

Table 3.14
Application of suitable learning strategies to ensure maximum participation of all learners

Statement	Responses in Percentage		
	Always	Sometimes	Not at all
Apply suitable learning strategies to ensure maximum participation of all learners	28.24	71.76	0.00

From the table 3.14 it is suggested that only 28.24% of the teachers of Class IV were always able to apply the learning strategies to ensure the maximum participation of all learners, whereas majority of them (71.76%) were able to do that occasionally.

Therefore it can be inferred that majority of the teachers (71.76%), could sometimes apply the learning strategies to ensure the maximum participation of all learners. But 28.24% could always apply the suitable learning strategies to ensure maximum participation.

12.Transaction of the content in a learner friendly manner

The teachers were asked to mark their responses regarding transaction of the content in a learner friendly manner. The result showing the percentage of teachers who opined regarding the item is given in Table 3.15

Table 3.15

Transaction of the content in a learner friendly manner

Statement	Responses in Percentage		
	Always	Sometimes	Not at all
Transact the content in a learner friendly manner	54.12	45.88	0.00

From the table 3.15 it is clear that more than half of the teachers of Class IV (54.12%) were always able to transact the content in a learner friendly manner, whereas nearly half of them sometimes transacted the content in a learner friendly manner.

Hence it can be inferred that 54.12% the teachers were able to transact the content in a learner friendly manner whereas 45.88% of the teachers were able to transact the content in a learner friendly manner only sometimes.

IV. Evaluation

Clarity in continuous evaluation

The responses from teachers based on clarity in Continuous Evaluation(CE) were collected and analyzed. The details are given in table 4.1

Table 4.1

Clarity in continuous evaluation

Aspect	Responses in Percentage	
	Yes	No
Clarity in continuous evaluation	82.94	17.06

From the table 4.1 it is found that majority of teachers of class IV (82.94%) reported that they got a clear cut idea about continuous assessment whereas, 17.06 % didn't.

From this it can be inferred that even though majority of teachers (82.94%) got a clear idea about continuous Evaluation, about 17.06% teachers did not get the clarity.

Areas where teachers need clarity

The data based on areas which need clarity were collected from teachers who didn't get a clear idea about CE (17.06%) and were subjected to analysis. The details are given in table 4.2

Table: 4.2

Areas where teachers need clarity

Areas	Responses in percentage
a. Assessment of learning process	11.76
b. Portfolio assessment	4.12
c. Unit assessment	1.76
d. Recording	2.35

From the table 4.2 it is found that very few teachers of class IV (11.76%) reported that they need clarity in assessment of learning process. About 4.12% reported that they need clarity in portfolio assessment.

Inference: However majority of teachers got a clear idea about continuous assessment, simultaneously a significant number of teachers need clarity in Continuous Evaluation.

Teachers were asked to list out their suggestions regarding the areas they need clarity. Suggestions are tabled below.

Process oriented evaluation

- *The level of the learners is quite important*
- *Need more clarity on indicators*
- *Editing should be carried out effectively*

Portfolio Assessment

- *Learner should be taken into confidence*
- *Avoid too much of activities*
- *Timely assessment needs to be done*

Unit Assessment

- *Oral and written evaluation should be done*
- *Time bound remedial teaching is to be don*

Grading

- *Should be encouraging*
- *Should be simplified*
- *Need more clarity in awarding grades*
- *Mechanical recording of grade marks should be avoided*

Recording

- *More explanations and clarifications should be given in training programs.*
- *It should be done properly*

Continuous Evaluation to ensure learning and to provide adequate support to learners

The data based on ability to carry out CE to ensure learning and to provide adequate support to learners were collected from teachers and were subjected to analysis. The details are given in table 4.3

Table 4.3
Continuous Evaluation to ensure learning and to provide adequate support to learners

Aspect	Responses in Percentage	
	Yes	No
Ability to ensure learning and to provide support to learners though CE	60.59	39.41

From the table 4.3 it is evident that 60.59% teachers of class IV reported that they could carry out continuous evaluation to ensure learning and to give necessary support to the learners whereas it was reported that 39.41 % couldn't.

From the analysis it is inferred that that about 40% of teachers are not able to ensure learning and to provide support to learners though CE whereas 60.59% were able to ensure it.

Practical difficulties encountered while carrying out Continuous Evaluation

The data based on ability to carry out CE to ensure learning and to provide adequate support to learners were collected from teachers who faced practical difficulties and were subjected to analysis. The details are given in table 4.4

Table 4.4
Practical difficulties encountered while carrying out continuous evaluation

Areas	Responses in Percentage
Lack of awareness	15.29
Lack of time	21.76
Complexity of learning process	10.00
Overcrowded class rooms	10.00

Analysis of table 4.4 revealed that 21.76% teachers reported that lack of time in CE was their major practical difficulty to ensure learning and providing support to learners while carrying out CE. The other difficulties reported are lack of awareness, complexity of learning process and overcrowded class rooms

The above mentioned findings highlight the need for making necessary arrangements to overcome practical difficulties likely to be encountered while carrying out CE.

The teachers are asked to enlist other practical difficulties faced by them to ensure learning and to support to learners through CE are listed below.

- Difficulty in recording.
- Continuity is lost.

Carrying out the Learning process and Evaluation simultaneously

The data based on responses of teachers regarding the simultaneous taking place of learning process and evaluation were collected and analyzed. The details are given in table Table 4.5

Table 4.5

Carrying out Learning process and Evaluation simultaneously

Aspects	Responses in Percentage	
	Yes	No
Carrying out the Learning process and Evaluation simultaneously	68.24	31.76

From the table 4.5 it is clear that nearly 70 % of teachers of class IV (68.24%) reported that the learning process and the continuous evaluation process take place simultaneously whereas 31.76 % have a negative opinion.

It is inferred that even though majority of teachers are able to carry out learning process and evaluation simultaneously about 32% of teachers are not able to undertake the task successfully.

Practical difficulties encountered to carry out learning process and evaluation simultaneously

The data based on responses of teachers regarding the practical difficulties encountered for simultaneous taking place of learning process and evaluation were collected and analyzed. The details are given in table 4.6

Table 4.6
Responses of teachers regarding practical difficulties in learning process and evaluation

Practical difficulties	Responses in Percentage
Lack of proper planning	22.35
Lack of awareness in suitable learning strategies	14.12
gives more emphasis to learning process than evaluation	3.53

Table 4.6 clearly states that 22.35% of teachers of class IV lack proper planning as one of the practical difficulties to carry out both learning and continuous evaluation process simultaneously. At the same time 14.12% did not have any idea regarding the usage of suitable learning strategies. It is found that 3.53% gave more emphasis to learning process than evaluation.

From this it can be inferred that a considerable percentage of the teachers reported that lack of planning and lack of awareness in suitable learning strategies as the practical difficulties to carry out both learning and continuous evaluation process simultaneously.

Specificity of indicators related to different areas of evaluation

The data based on responses of teachers regarding specificity of indicators related to different areas of evaluation were collected and analyzed. The details are given in table 4.7

Table 4.7
Specificity of indicators related to different areas of evaluation

Aspects	Responses in Percentage	
	Yes	No
Specificity of indicators related to different areas of evaluation	79.41	20.59

From the table 4.7 it is found that about 79.41% teachers of class IV reported that the indicators given to the areas for evaluation was specific whereas 20.59% reported that the indicators were not specific.

Inference: It is significant to note that a significant percentage of teachers (20.59%) of teachers reported that the indicators related to different areas of evaluation are not specific.

Area where teachers need clarity for indicators

The data based on areas which need clarity for indicators were collected from teachers who didn't get a clear idea were subjected to analysis. The details are given in table 4.8

Table: 4.8

Area where teachers needs more clarity for indicators

Areas	Responses in Percentage
Assessment of learning process	14.12
Portfolio assessment	3.53
Unit assessment	8.24

It is evident from the table 4.8 that a very few teachers of class IV (14.12%) need clarity in the assessment of learning process and 8.24% need clarity in unit assessment whereas 3.53% need clarity in portfolio assessment.

From this it can be inferred that some of the teachers reported that they need clarity in Assessment of Learning Process, Unit Assessment. A very few need clarity of indicators Portfolio Assessment.

Problems faced by teachers during the assessment of learning process

The data based on responses of teachers regarding problems faced by teachers during the assessment of learning process were collected and analyzed. The details are given in table 4.9

Table 4.9

Responses of teachers regarding Problems faced by teachers during the assessment of learning process

Problems	Responses in Percentage
1) Overcrowded classroom	37.65
2) Lack of suitable criteria	8.82
3) Lack of time	57.06
4) Lack of awareness of teachers	4.71
5) Lack of Prior preparation	1.76

The table 4.9 reveals that about 57.06 % of teachers of class IV faced lack of time, while 37.65% of teachers reported that overcrowded classrooms were the problems faced in

evaluation. On the other hand a considerable percentage (8.82%) reported there were no suitable criteria for evaluation and 4.71% reported that they lack awareness regarding the areas of evaluation.

From this it is inferred that nearly 57.06 % of the teachers faced lack of time as the problem faced in evaluation while 37.65% reported that the difficulty is because of the overcrowded classroom.

Provision for self-evaluation and peer evaluation

The data based on responses of teachers regarding providing opportunities for Self-evaluation and Peer evaluation were collected and analyzed. The details are given in table 4.10

Table: 4.10

Responses of teachers regarding self-evaluation and Peer evaluation

Aspects	Responses in Percentage	
	Yes	No
Self-Evaluation	87.65	12.35
Peer Evaluation	82.35	17.65

From the table 4.10 it is found that a great majority of teachers of class IV reported that they provided ample provide opportunities for self-assessment (87.65%) and peer assessment(82.35%). On the other hand, 17.65% did not provide any opportunity for peer assessment. It is also found that 12.35% did not provide any opportunity for self-assessment.

It is inferred that majority of the teachers provide opportunities for self-assessment(87.65%) and peer assessment(82.35%). At the same time it is found that a significant percentage do not provide opportunity for self-assessment (12.35%)and peer assessment (17.65%).

Preparation of indicators for Evaluation

The data based on responses of teachers regarding preparation of indicators for evaluation were collected and analyzed. The details are given in table 4.11

Table 4.11

Responses of teachers regarding Preparation of indicators for Evaluation

Methods	Responses in Percentage
a. Prepares by teachers	42.94
b. Prepares by learners themselves	6.47
c. Derives from classroom discussion	58.24

The table 4.11 reveals that about 42.94% of teachers of class IV prepared the indicators whereas 58.24% derived the indicators from classroom discussion. At the same time a negligible percentage allowed the learners to prepare the indicators by themselves.

It is clear that majority of teachers are not concerned with preparation of indicators for evaluation by learners. Some teachers used indicators developed in classroom discussions

Teachers were asked to enlist the ways on how they prepare the indicators for evaluation.

- Many of them reported that they prepared the indicators in the SRG meetings.

Provision of ample opportunity to learners to present their products related to self-assessment and peer assessment

The data based on responses of teachers regarding provision of ample opportunity to learners to present their products related to self-assessment and peer assessment. The details are given in table 4.12

Table 4.12

Opportunity for learners to present their products related to self-assessment

Aspects	Responses in Percentage	
	Yes	No
Provision of ample opportunity to learners to present their products related to self-evaluation and peer evaluation	87.65	12.35

From the table 4.12 it is found that majority of teachers of class IV (87.65%) reported that they provided ample opportunities to learners to present their products related to self-assessment and peer assessment whereas it is noted that 12.35% didn't.

It is significant to note that even though majority of teachers are providing opportunities to learn to present their products related to self-evaluation and peer evaluation, a significant number of teachers (12.35%) are not providing at all.

Suitable changes in the classroom process considering the learners' assessment

The data based on responses of teachers regarding suitable changes in the classroom process considering the learners' assessment. The details are given in table 4.13

Table: 4.13

Necessary changes in the classroom process

Aspect	Responses in Percentage	
	Yes	No
Necessary changes made in the classroom process considering the learners' evaluation	80.00	20.00

From the table 4.13 it is clear that majority of teachers of classIV(80.00%) reported that they made suitable changes in the classroom process considering the learners' evaluation whereas it is noted that 20 % didn't.

It is found that majority of the teachers (80%) reported that they made suitable changes in the classroom process considering the learners evaluation whereas a significant percentage(20%) did not make any changes in the classroom process.

Changes incorporated for student evaluation

Teachers were asked to mention the changes they have applied in the classroom process. The following are the changes shortlisted:

- The changes brought in the classrooms are newspaper reading, reading contemporary periodicals, releasing of newspapers, conducted evaluation by the parents, 101 organized personality development programmes.
- Found more time to carry out more activities
- Note making was conducted
- Group wise assessment was conducted
- Class arrangement was done in a learner friendly manner
- Remedial teaching was carried out
- Groups were inclusive in nature
- Simplified the units in the mathematics textbook
- Peer tutoring was effectively done
- Variety of learning was used
- Extra inputs in the form of worksheets were given for slow learners

1. Tools / techniques while using in unit wise evaluation

The data based on responses of teachers regarding the use of Tools / techniques used for unit wise evaluation were collected and analyzed. The details are given in table4.14

Table:4.14

Tools / techniques for evaluation

Tools	Responses in Percentage
a. Quiz	77.06
b. Open book test	24.12
c. Class test	71.18
d. Other tools	2.94

The table 4.14 reveals that 77.06% of the teachers of class IV reported that they use Quiz as a tool / technique for unit wise evaluation. At the same time 71.18% of teachers use Class test and Open book test was used by 24.12% of the teachers.

From this it is inferred that class test and quiz are found to be the most popular tools used by teachers for unit evaluation. Along with open book test, teachers use variety of evaluation tools/ techniques like seminars, work sheets, creative writing and collections

Teachers are asked to mention additional tools that they have employed for unit wise evaluation. Following are the various tools used by the teachers:

- Seminars
- Creative writing
- Dictation
- Reading competition

Records considered for continuous evaluation

The data based on responses of teachers regarding the records they consider for CE. The details are given in table 4.15

Table 4.15**Records considered for continuous evaluation**

Records	Responses in Percentage
a. Note book	91.76
b. Worksheet	85.88
c. Creative Writings/Assignments	87.06
d. Short notes	85.88
Project/seminar reports	71.76
Answer sheets of unit wise assessment	76.47

From the table 4.15 it is noted that vast majority of teachers of classIV(80 -90 %) reported that the records considered for continuous evaluation were note book ,creative writings short notes and Worksheet. .,Whereas more than 75% of teachers reported that they considered answer sheets of unit wise assessment and 72% considered Project/seminar reports as records for continuous evaluation.

From the analysis it is inferred that teachers of standard IV are considering different records such as notebook, worksheet, project/seminar report, answer scripts, short notes and creative writings /assignment for continuous evaluation.

Teachers are asked to mention additional records that they have considered for continuous evaluation. Given below is the one of the other records they have considered for continuous evaluation.

- The learning materials prepared by learners

Feedback based on continuous evaluation

The data based on responses of teachers regarding the feedback based on continuous evaluation. The details are given in table 4.16

Table: 4.16**Feedback based on continuous evaluation**

Aspect	Responses in Percentage	
	Yes	No
For learners	92.35	7.65
For parents	82.94	17.06

From the table 4.16 it is stated that a great majority of teachers of class IV provided feedback based on continuous assessment for learners (92.35%) and for parents (82.94%). At the same time it is also noted that 17.06% didn't provide any feedback for parents and 7.65% didn't provide any feedback for the learners.

Even though majority of teachers are giving feedback based on CE a significant number of teachers are not giving feedback on CE for parents and 7.65 % of teachers are not giving feedback for learners too . It is serious to consider that feedback to learners is very important in the learning process.

Provision for remedial instruction based on feedback from Continuous Evaluation

The data based on responses of teachers regarding remedial teaching based on continuous evaluation. The details are given in table 4.17

Table 4.17
Remedial teaching based on continuous evaluation

Aspect	Responses in Percentage	
	Yes	No
Provision for remedial instruction based on feedback from Continuous Evaluation	87.65	12.35

From the table 4.17 it is found that a great majority of teachers (87.65%) of class IV reported that they followed remedial teaching based on the feedback of continuous assessment for learners whereas it is noteworthy that 12.35% didn't follow any remedial teaching.

It is significant to note that even though majority of teachers (87.65%) are providing remedial instruction based on feedback from Continuous Evaluation, significant percentage of teachers (12.35%) are not providing remedial instruction based on the feedback obtained from continuous evaluation For learners and parents

Methods/Strategies adopted for remedial instructions

The data based on responses of teachers regarding the strategies chosen for remedial teaching. The details are given in table 4.18

Table: 4.18
Strategies adopted for remedial teaching

Strategies	Responses in Percentage
a. Changing the process	45.29
b. Scaffolds	61.18
c. Peer tutoring	39.41
d. Follow up activities	64.71

From the table 4.18 it is found that 65% of teachers of class IV reported that they used follow up activities as a strategy for remedial teaching whereas, below 61% used the method of scaffolding .About 45% changed the teaching learning process as part of remedial teaching and peer tutoring was employed by 39.41%.

It is found that 39.41% of the teachers used peer tutoring method for remedial teaching. A considerable number (45.29%) of teachers changed the process of teaching for remedial teaching.

Teachers were asked to give the means that they have adopted for remedial teaching. The measures adopted are given below:

- Sought support from talented teachers
- ICT possibility activities were provided
- Discussion in CPTA
- Life related activities

Accurate recording of continuous evaluation

The data based on responses of teachers regarding the Accurate recording of continuous evaluation were collected and analyzed. The details are given in table 4.19

Table: 4.19
Accurate recording of continuous evaluation

Aspect	Responses in Percentage	
	Yes	No
Recording of continuous evaluation	65.88	34.12

From the table 4.19 it is found that 65.88 % of teachers of class IV recorded the continuous assessment whereas 34.12% didn't.

Even though majority of teachers accurately recorded the details of continuous evaluation, it is significant to note that 34.12% of teachers did not accurately record .

Practical difficulties in recording continuous evaluation

The teachers were asked to list out the practical difficulties they faced for not recording the continuous evaluation. The difficulties enlisted are:

- Lack of time
- Lack of clarity
- Difficulty in following with the learning process
- No evaluation formats are available

Framing Different evaluation strategies for CWSN learners

The data based on responses of teachers regarding the Framing separate strategies of evaluation for CWSN learners were collected and analyzed. The details are given in table 4.20

Table:4.20

Framing different evaluation Strategies for CWSN learners

Aspect	Responses in Percentage	
	Yes	No
Framing different evaluation Strategies for CWSN learners	50.00	50.00

From table 4.20 it is noticed that 50% of teachers of class IV framed different strategies of assessment for CWSN whereas another 50% didn't.

From the analysis it is clear that half percentage of teachers are framing different strategies for CWSN learners whereas another half percentage of teachers are not framing different strategies for CWSN learners.

The teachers were asked to list out the techniques adopted to evaluate the CWSN learners. The techniques adopted are given below:

- Additional worksheets are provided
- Simple evaluation strategies are employed
- Talents are identified and encouraged
- Opportunities for oral presentation

- Games to develop leadership quality among CWSN
- Picture reading and colouring tools are used
- Peer tutoring
- Developed tools for CWSN
- Adapted textual materials for CWSN
- Level specific activities

Recording of responses Based on Term Evaluation

The data based on responses of teachers based on the statements related to Term Evaluation. The details are given in table 4.21

Table:4.21

Recording of responses Based on Term Evaluation

Statements	To a great extent(%)	To some extent (%)
a. Clear cut awareness about Term Evaluation	84.12	15.88
b. The tools adopted for Term Evaluation are adequate for evaluating learning outcomes	75.29	24.71
c. Includes variety of questions which give emphasis to thinking skills	68.24	31.76

Table 4.21 reveals that majority of teachers (84.12%) reported that they had clear cut awareness about Term Evaluation whereas 15.88% had clear cut idea regarding Term Evaluation only to some extent whereas, 6.33% reported that they had no awareness about Term Evaluation. 75.29% of teachers agreed to a great extent that tools adopted for Term Evaluation are adequate for evaluating learning outcomes while 24.71% agree to only some extent whereas, 5.06% didn't agree that the tools adopted for Term Evaluation are adequate.. It is noted that 68.24% agree to a great extent that they included variety of questions which give emphasis to thinking skills whereas 31.76 agree to only some extend. It is found that 6.33% did not agree that they include variety of questions.

Majority of teachers (84.12%) reported that they have a clear awareness about Term Evaluation to a great extent level. At the same time 75.29% of teachers reported that tools for TE are suitable for evaluating the learning outcomes while 68.24% opined that Term Evaluation includes variety of questions which give emphasis to thinking skills. Regarding the statements related to term evaluation it is noteworthy that more than 30% of teachers opined that they include variety of questions which give emphasis to thinking skills are

adequate only to some extent and 24.71% of teachers opined that the tools adopted for Term Evaluation are adequate for evaluating learning outcomes

Difficulties experienced in Term Evaluation

The data based on responses of teachers regarding they face any difficulties regarding TE. The details are given in table 4.22

Difficulties experienced in Term Evaluation

Table:4.22

Aspect	Responses in Percentage	
	Yes	No
Teachers face Difficulties related to TE	17.65	82.35

It is clear from the table 4.22 that the majority of teachers of class IV (82.35%) faced no difficulties regarding Term Evaluation. At the same time it is noted that 17.65% faced difficulties regarding Term Evaluation.

Eventhough majority of teachers (82.35%) are not facing any difficulties related to TE, a significant number of teachers (17.65%) have difficulties related to TE.

Difficulties experienced by teachers in Term Evaluation

The data based on responses of teachers regarding the difficulties related to TE were collected and analyzed. The details are given in table Tablev.4.23

Table:4.23

Difficulties experienced by teachers in Term Evaluation

Difficulties	Responses in Percentage
a. Inadequate evaluation strategies	18.99
b. Difficulty in grading	23.42
c. Difficulty in recording	1.27

From the table 4.23 it is found that 23.42% of teachers of class IV reported that the problems they faced regarding TE is difficulty in grading, below 20% of teachers were of the opinion that evaluation strategies were inadequate and a negligible percentage (1.27%) found difficulty in recording.

From the analysis is found that few teachers reported that they experienced difficulties related to term evaluation. The difficulties reported are inadequate evaluation strategies, difficulty in grading and difficulty in recording.

Evaluation related to art, sports and work experience

The data based on responses of teachers regarding Assessment related to art, sports and work experience are collected and analyzed. The details are given in table 4.24

Table.4.24

Evaluation related to art, sports and work experience

Aspect	Responses in Percentage	
	Yes	No
Conduct of evaluation related to art, sports and work experience	47.65	52.35

It is clear from the table 4.24, that 47.65 %of the teachers of class IV did theevaluation related to art, sports and work experience whereas 52.35% didn't.

From the analysis it is clear that about 52.35% of teachers are not properly conductingevaluation related to art, sports and work experience.

Suggestions to improve the efficiency of evaluation related to arts and sports activity learning-

Teachers were asked to give suggestionsfor notcarrying out the effectiveconduct of evaluationrelated to art, sports and work experience. The suggestions are given below:

- Appointspecialized teachers in the area Of arts sports , health and work experience
- Need more training sessions
- TE should also be conducted
- Activities related to arts and sports need to be incorporated in the units.

Evaluation and recording carried out for Socio –Emotional Areas

The data based on responses of teachers regarding Evaluation and recordings conducted for Social and Emotional areas.The details are given in table 4.25

Table:4.25

Evaluation and recording carried out for Socio –Emotional Areas

Areas	Responses in Percentage
Empathy	70.00
Intrapersonal skill	85.29
Problem solving skill	50.59
Critical thinking	45.29
Self-awareness	75.29
Communicative skill	62.35
Coping with emotions	53.53
Decision making	78.82
Creativity	50.00
Coping with stress	36.47

The table 4.25 revealed that majority of teachers of classIV(70%to 90%) reported that they evaluated and recorded intrapersonal skill, decision making, self-awareness and empathy. Communication skill was evaluated by62.35%, coping with emptions by 53.53% teachers, problem solving by 50.59 % and creativity by 50%.

It is important to note that a significant number(60-90%) of teachers are carrying out evaluation and recording of socio-emotional areaslike intrapersonal skill,decision making, self-awareness, empathy and communication skill whereas, it is noted that evaluation and recording in areas like , coping with stress and critical thinking are done only by nearly 40% of the teachers.

V. Support System

The teachers of the fourth standard were asked to mark their responses regarding the support system available in for the effective transaction ofthecontent and the developmental activities of the institution. The responses were collected and tabulated. The results are given under the subheadings.

Individual/agencies providing support

Individual /agencies providing various types of support for the effective functioning of the system are tabulated and it is presented in Table 5. 1

Table5.1**Individual/agencies providing support**

S No.	Individual/Agencies	Responses in percentage
11	HM	97.55
22	BRC	97.55
33	DIET	74.23
44	ISM	50.92
55	SCERT	58.90
66	SMC/PTA	87.12
77	MPTA	88.34
78	SSG	76.69
99	LSG	49.08
110	NGO	19.02
111	SSA	85.28
s12	Clubs	63.19
113	SPC	19.63
114	Alumni	20.86

From the table5.1 it is evident that a great majority of teachers of standard IV reported that they received support from HMs (97.55%), BRC (97.55%) while majority received support fromMPTA (88.34%), SMC/PTA (87.12%), SSA (85.28%), SSG (76.69%), DIET (74.23%),Clubs (63.19%), SCERT (58.90%), and ISM (50.92%). Less than half of the teachers received support from LSG (49.08%) whereas a very low percentage of them received support from Alumni (20.86%), SPC (19.63%) and NGOs (19.02%).

From the analysis it can be inferred that great majority of teachers received support from HMs and BRC. Majority of the teachers received support from, SMC / PTA, MPTA, SSA, SSG, DIET ,clubs, SCERT and ISM .Support from LSG was reported by less than half of the teachers. Only a very low percentage of teachers received support from Alumni SPC and NGOs.

Areas where teachers get support

Areas where teachers get support are tabulated and it is presented in Table 5. 2

Table 5.2
Areas where teachers get support

Sl. No.	Areas	Responses in percentage
11	Academic	95.71
22	Infrastructure (Class room facilities)	85.28
33	Financial (Grants)	89.57
44	To ensure child rights	75.46
55	To enhance the emotional stability of children	58.28
66	To nurture life skills in children	73.01
77	Child friendly environment	87.12
88	Environmental awareness	82.82
99	Waste management	77.30
110	Health and Physical education	77.30
111	Cyber safety	47.85
112	Art and Work experience education	66.87
113	Adolescent education	41.10
114	Guidance and Counseling	49.08
115	Right based education	52.15
116	Awareness against Crimes	54.60
117	Anti-addiction activities	68.71
118	Values/Attitudes	71.78
119	Awareness against Abuses	58.28
220	Assessment (CE & TE)	74.85
221	Water Literacy	53.99
222	Energy Literacy	61.96
223	ICT	65.64
224	Others	13.50

From the table 5.2 it is clear the majority of the teachers opined that they got support in the areas of academic (95.71%), Grants (89.57%), Child friendly environment(87.12%), Environmental awareness(82.82%), Waste management and Health and Physical education (77.30%) and to ensure child's right (75.46%) to a great extent. At the same time, it is noted that less than 75% of the teachers reported that they got support for assessment (CE & TE) (74.85%), to nurture life skills in children (73.01%) and Values/Attitudes (71.78%) to a large extent. It is noted that 50 to 60% received support to some extent for the areas - Anti-addiction activities (68.71%), Art and Work experience education (66.87%), ICT (65.64%), Energy Literacy (61.96%), to enhance the emotional stability of children (58.28%), awareness against Abuses (58.25%), awareness against Crimes(54.60%) Water Literacy(53.99%) Right based education(52.15%).

From the analysis, it can be inferred that only less support is attained in the areas to enhance the emotional stability of children, awareness against abuses, awareness against crimes, water literacy and right based education.

2 (x)

- Training programmes
- Workbooks

Self-improvement using feedback from monitoring

The teachers under study were asked how far the feedback from monitoring was helpful for them for their improvement. The responses obtained are presented in Table 5.3

Table 5.3

Self-improvement using feedback from monitoring

Statement	To a great extent (%)	To some extent (%)	Not at all (%)
Self-improvement using feedback from monitoring	24.54	73.62	1.84

From the table 5.3 it is clear that majority of the teachers (73.62%) opined that self-improvement using feedback from monitoring is done to some extent while 24.52% opined to a great extent dimension.

It is clear that 73.62% of the teachers agreed that self-improvement was done on the basis of the feedback from monitoring.

Self-academic improvement based on feedback

The teachers under study were asked whether they try to improve themselves on the basis of the feedback of monitoring. The responses are given in table 5.4

Table 5.4

Self-academic improvement based on feedback

Aspect	Responses in percentage	
	Yes	No
Self-academic improvement based on feed back	98.16	1.84

From the table 5.4 it is noted that about 98.16% of the teachers agreed that self-academic improvement was done on the basis of the feedback whereas a meagre proportion (1.84%) negated.

Majority of the teachers (98.16%) agree that self-academic improvement was done on the basis of the feedback.

Follow up activity based on monitoring.

The teachers of all subjects were asked whether they plan and implement follow up activities on the basis of monitoring experience. Their responses are presented in table 5.5

Table 5.5

Follow up activity based on monitoring

Aspect	Responses in percentage	
	Yes	No
Follow up activity based on monitoring	95.09	4.91

From the table 5.5 it is analyzed that majority of the teachers agree that follow up activity was carried out based on the monitoring whereas 4.91% do not agree to it.

Most of the teachers 95.09% agree that follow up activity was carried out based on the monitoring.

Clarity in the academic areas through training

The teachers are given periodical training with the aim of making them experts in their profession. The training often includes different areas where the need is really felt. The

teachers of all subjects under study were asked to indicate the areas in which they could get clarity through training. Their responses are consolidated in Table 5.6

Table 5.6
Clarity in the academic areas through training

Areas	Responses in percentage
Content	87.73
Teaching learning strategies	94.48
Products	79.14
Art and work experience education	59.51
ICT	74.85
Inclusive education	53.37
CE/TE	88.96
Learning outcomes	93.87
Learning resources	77.91
Health and physical education	54.60
Guidance and counseling	39.26
Others	19.63

From the table 5.6 it is clear that a great majority of the teachers got clarity in the areas like Teaching learning strategies (94.48%), Learning outcomes (93.87%), CE/TE (88.96%) and Content (87.73%). On the other hand, below 80% got clarity in the areas of Products (79.14%), Learning resources (77.91%) and ICT (74.85%). Above 55% got clarity in Art and work experience education and Inclusive education. It is noted that only 39.26% of the teachers got clarity in Guidance and counseling.

From the analysis it can be inferred that not much teachers got clarity in areas of Art and work experience education, Inclusive education and Guidance and counseling.

Training helps in transacting the lessons fruitfully

Table 5.7

Training helps in transacting the lessons fruitfully

Statement	To a great extent (%)	To some extent (%)	Not at all (%)
Training helps in transacting the lessons fruitfully	47.85	46.63	5.52

Table 5.7 reveals the fact that below fifty percentage opined that the training was helpful for them in transacting the lessons fruitfully to a great extent. It is noteworthy that 46.63% opined that the training was helpful only to some extent. Whereas it is noted that 5.52% opined that training was not at all helpful for them in transacting the lessons.

It is inferred that nearly fifty percentages opined that the training was helpful for them in transacting the lessons fruitfully to a great extent.

The suggestion put forward by teachers to improve the quality of training are given below.

They are:

- Content of the textbook should be given more importance
- Audio visual aids related to the lessons should be given
- Time bound
- Should give more information regarding the lessons
- Competent resource persons should be selected
- Relevant and effective messages should be given
- Classroom excellences of teachers and their experiences should be shared
- Comprehensive analysis of each unit should be given
- Consolidation of extended activities
- Information regarding ICT availability and its resources
- Sessions by experts
- Proper planning and time frame
- Discussion about units
- Vacation training programme
- Models of TLM can be given
- Try out classes
- Laptop and net connection for all learners

- Priority should be given to the discussion based on TT and TB while planning the programme
- Cluster should be more effective.
- More examples should be given in the teacher texts of Mathematics and English
- Separate training should be given for health, sports, work experience and arts.
- Experts should be appointed as SRGs
- Management training should be reintroduced
- It should be made sure that inputs received from training programmes are implemented in classrooms.
- Don't make training programmes a farce.
- Clear cut instructions.
- Conceptual clarity
- Incentives and awards should be given to meritorious teachers.

VI. Subject Specific

Adequacy of resources in the text book for enhancing Reading habit among learners

The responses of teachers regarding the adequacy of resources in the text book for enhancing Reading habit among learners were collected and analyzed. The details are given in the table 6.1

Table 6.1

Adequacy of resources in the text book for enhancing Reading habit among learners

Reading habits	Responses in Percentage
Summarizing the content	80.37
Preparation of notes on reading	92.64
Collection of similar compositions	85.89
Comparison of similar compositions.	75.46
Activities for reading a composition completely	82.82
Finding out the climax of compositions	60.12
A creative platform for telling stories	64.42
A creative platform for reciting poems	62.58
Creative writing workshops	61.96

Majority of teachers (92.64%) reported that the activity of preparing notes on reading given in the language text book is adequate for developing reading habit among students. Majority

of teachers (75%-85.89%) reported that activities like comparison of similar composition, summarizing content, activities for reading a composition completely and collection of similar compositions given in the text book are adequate for developing reading habit among learners. It is followed by a creative platform for telling stories (64.42%), a creative platform for reciting poems (62.58%), creative writing workshops (61.96%) and finding out the climax of compositions (60.12%).

A great majority of teachers reported that the activity of preparing notes on reading given in the language text book is adequate for developing reading habit among students while it is desirable to include provision for recitation, workshop for creative writing and identification of climax of compositions.

Adequacy of resources in the text book for fostering literary aptitude among learners

The responses of teachers regarding the adequacy of resources in the text book for fostering literary aptitude among learners are given in the table 6.2

Table 6.2

Adequacy of resources in the text book for fostering literary aptitude among learners

Attitude towards literature	Responses in Percentage
Story writing	90.80
Versification	92.02
Conversation writing	92.64
Narration	91.41
Description	90.18
Appreciation	91.41
Story telling	83.44
Recitation	85.89
Making riddles/puzzles	84.66
Writing footnotes	75.46
Story	83.44
Poetry completion	84.66
Giving titles	76.07

It is evident from table 6.2 that majority of teachers (75.46%-92.02%) reported that the provisions/resources for story writing, narration, appreciation, recitation, versification, conversation, description, title writing story and making riddles/puzzles given in the text

book are adequate for fostering literary aptitude among learners. At the same time nearly 76% of teachers reported writing footnotes and giving titles are helpful for fostering literary aptitude among learners.

Majority of teachers reported that the provisions/resources for story writing, narration, appreciation, recitation, versification, conversation, description, title writing and story given in the text book are adequate for fostering literary aptitude among learners.

Inclusion of resources for creative writing in the text

The responses of teachers under study regarding the Inclusion of resources for creative writing in the text are given in the table 6.3

Table 6.3
Responses of teachers regarding the inclusion of resources
for creative writing in the text

Areas	Responses in Percentage
Story completion	87.12
Poetry completion	66.26
Composing descriptions	92.02
Writing conversations	85.89
Script writing	82.21
writing footnotes	90.18
Preparing cards	87.12
Picture story	43.56
Reading picture	49.08
Writing description	88.34
Writing criticism/reviews	55.83
Preparing appreciations	65.64
Any other	

From the table 6.3 it is clear that majority (80%-92.02%) of teachers reported that script writing, writing conversations, writing description, preparing cards, story completion, composition descriptions given in the text book are suitable for providing opportunity for creative writing. It is followed by poetry completion (66.26%) preparing appreciation (65.64%), writing criticism/reviews (55.83%). It is noted that below 50% of the teachers

reported picture reading and picture story are suitable for providing opportunity for creative writing, Included In the text.

Even though a great majority of teachers reported that writing footnotes, writing competition and composition description given in the text book are suitable for providing opportunity for creative writing, a significant number of teachers reported that activities like poetry completion, picture story and reading picture suitable for creative writing are to be included in the text book.

Use of activities for acquiring language skills

The responses of teachers regarding the use of activities for acquiring language skills were collected and analyzed. The details are given in the table 6.4

Table: 6. 4

Use of activities for acquiring language skills

Areas	Responses in Percentage
Role play	88.34
Miming	83.44
Choreography	60.74
Recitation	87.12
Story telling	71.17
Colouring	86.50
Picture drawing/painting	87.12

From the table 6.4 it is found that teachers of standard IV reported that role play (88.34%), recitation (87.12%), Picture drawing/painting(87.12%), Colouring (86.50%), Miming (83.44%) are the major activities used in the text book for acquiring language skills whereas story telling(71.17%), choreography(60.74%) and miming(50.32%) are the other activities reported by the teachers.

As reported by the teachers, the major activities used in the text book for acquiring language skills are role play(88.34%), recitation(87.12%), Picture drawing/painting(87.12%), Colouring (86.50%), Miming (83.44%) story telling (71.17%) and choreography(60.74%)

Adequacy of teacher text for the effective transaction of concepts

The responses of teachers regarding the Adequacy of teacher text for the effective transaction of concepts are given in the table 6.5

Table 6.5

Adequacy of teacher text for the effective transaction of concepts

Aspect	Responses in percentage	
	Yes	No
Adequacy of teacher text for the effective transaction of concepts	86.50	13.50

It is seen from table 6.5 that majority of teachers (86.50%) opined that the teacher text is adequate for effective transaction of the concepts given in the text book whereas 13.50% of the teachers negated this view.

Majority of the teachers(86.50%) reported that the teacher text is adequate for effective transaction of the concepts given in the text book whereas a negligible proportion of teachers responded negatively.

Facilities/techniques used for acquiring language skills

The responses of teachers regarding the facilities/techniques used for acquiring language skills were collected and analyzed. The details are given in the table 6.6

Table: 6. 6

Facilities/techniques used for acquiring language skills

Areas	Responses in Percentage
Club activities	79.14
'School assembly	33.75
Language Lab	65.64
Newspapers	67.48

The table 6.6 clearly indicates that majority of the teachers (79.14%) use club activities as a technique for acquiring language skills whereas nearly 70% of the teachers use the facilities like newspapers and language lab. It is also noted that only 33.75% of them make use of school assembly as a technique for acquiring language skills.

Majority of the teachers use various techniques like club activities(79.14%), newspapers(67.48%) and language lab(65.64%) for acquiring language skills. Only 35% of them make use of the school assembly for this purpose.

Observation regarding the difficulty while transacting discourses in the class rooms

The responses of teachers regarding the difficulties they faced while transacting discourses in the classrooms were collected and analyzed. The details are given in the table 6. 7

Table 6.7

Difficulty while transacting discourses in the class rooms

Statement	Responses in percentage	
	Yes	No
Difficulty while transacting discourses in the class rooms	49.08	50.92

From the table 6.7 it is clear that 49.08% of the teachers found difficulty while transacting discourses in the classrooms whereas 50.92% of the teachers found it easy.

Nearly half of the teachers under study (49.08%) reported that they found difficulty while transacting discourses in the classrooms.

Difficulties experienced while transacting discourses

Teachers are asked to give the reasons why they find difficulty while transacting discourses in the class rooms and the suggestions to overcome them. Their reasons and suggestions are given below:

- Lack of sample models of discourses
- Complexity of the learning process
- Slow learners find difficulty in doing activities when given individually
- The language skills given are above the level of the learners
- Lack vocabulary among learners

Suggestions to overcome the difficulties are given below:

- Provide more sample models of discourses
- Provide more reference books
- Encourage collaborative learning and enhance the confidence of the learners
- Provide more reading materials
- Encourage picture reading
- Provide picture story

The teachers find difficulty in transacting the discourses due to lack of sample models ,complexity of the learning process, Slow learners' difficulty in doing activities,language skills that are above the level of learners,andlack of sufficient vocabulary among learners For overcoming these difficulties, they suggest provision for more sample model discourses, reference books, reading materials and picture story,encouraging picture reading and collaborative learning to enhance the confidence of learners

Mathematics - Standard IV

The responses of teachers based on certain aspects like Contents of the Lesson, Suitability, Learning activities, materials, subject based competencies and teacher text of class IV Mathematics were collected and analyzed. The details are given in Table 6.8

Table: 6. 8

Responses of teachers based on text book and teacher text in Mathematics

Statements	Great extent	Some extent	Not at All
1. Able to transact the contents of Mathematics effectively to the students	55.21	36.81	70.98
2. Activities are included by confirming that adequate pre-requisites required for conceptualization are available with the students	78.53	12.88	8.59
3. Able to make the students apply the ideas generated by them in new situations.	71.17	20.25	8.59
4. <i>There are some more areas in the Mathematics content that requires more clarity for teachers.</i>	46.01	21.47	32.52
5. Explanations in the textbook can be understood by the students	58.28	34.36	7.36
6. Able to carry out the activities given in the Side/ Boxes in the classroom,	72.39	19.63	7.98
7. Able to carry out activities related to ICT given in the textbook	49.08	37.42	13.50
8. Teacher text is helpful in planning classroom activities	88.96	4.91	6.13
9. Teacher text is helpful in enhancing conceptual knowledge about the content	90.80	3.07	6.13
10. Activities that can be done by the students, themselves are given in the text book.	80.98	14.11	4.91
11. Able to organize classroom activities so that children can effectively generate mathematical ideas themselves	65.03	26.38	8.59
12. A child can analyze and solve a problem himself	31.29	60.74	7.98
13. The child is able to recognize mathematical idea/ task to be used for problem solving.	36.20	54.60	9.20
14. Students get opportunities for hypothesizing and generalization in the class.	68.10	24.54	7.36
15. Children are able to think rationally and find the cause- effect relation	40.49	50.31	9.20
16. Children are able to gather information and analyze them	57.67	33.74	8.59
17. Learning activities given can be completed in a time-bound manner.	30.67	62.58	6.75

The table 6.8 reveals that majority of teachers reported that teacher text is helpful to a great extent in planning classroom activities (90.80%) and in enhancing conceptual knowledge of the content (88.96%). 80.98% teachers reported that activities given in the textbook can be done by the students, themselves. Majority of teachers (78.53%), opined that activities are

included by confirming that adequate pre-requisites required for conceptualization are available with the students and that they are able to carry out the activities given in the Side/ Boxes in the classroom, (72.39%) and able to make the students apply the ideas generated by them in new situations. 71.17%). It is also found that 68.10% of teachers reported that students got opportunities for hypothesizing and generalization in the class, and 65.03% were able to organize classroom activities so that children can effectively generate mathematical ideas themselves. It is found that only 55.21% able to transact the contents of Mathematics effectively to the students, 57.67% reported that the children were able to gather information and analyze them, 49.08% opined that they were able to carry out activities related to ICT given in the textbook, 40.49% reported that children were able to think rationally and find the cause- effect relation, 36.20% of them reported that The child was able to recognize which mathematical idea/ task to use for problem solving. It is noted that nearly 31% reported that a child could analyze and solve a problem himself and learning activities given could be completed in a time-bound manner. It is significant to note that 60.74% reported that a child can analyze and solve a problem himself only up to some extent level. It is noted that a considerable percentage (13.50%) of the teachers were not able to carry out activities related to ICT given in the textbook . It is noted that majority of the teachers (62.58%) reported that learning activities given can be completed in a time-bound manner only to some extent.

Science

The responses of teachers regarding the Contents of the Lesson, Suitability, Learning activities, materials, subject based competencies and teacher text of class IV science were collected and analyzed. The details are given in Table 6.9

Table 6.9

Responses of teachers based on text book and teacher text in science

Statements	To a great extent (%)	To some extent (%)	Not at all (%)
The contents provided in the Text book are suitable for the attainment of the objectives of learning Science	78.53	12.88	8.59
The activities given in the Text Book are suitable for the attainment of scientific processing skills	77.30	14.72	7.98
Activities provided in the Text Book are sufficient enough to develop creativity and scientific thinking among children	73.01	17.79	9.20
The text book provides situations to use the scientific knowledge the learner has experienced in real life situations.	79.75	11.66	8.59
Do there exist areas that pose difficulty in learning science?	71.78	20.25	7.98

From the table 6.9 it is found that majority of the teachers under study reported that the text book is suitable to a great extent in the sense that it provided situations to use the scientific knowledge the learner has experienced in real life situations (79.75%), the contents provided in the Text book were suitable for the attainment of the objectives of learning Science (78.53%), the activities given in the Text Book were suitable for the attainment of scientific processing skills (77.30%), activities provided in the Text Book were sufficient enough to develop creativity and scientific thinking among children (73.01%), and there were areas that pose difficulty in learning science to a great extent (71.78%). It is significant to note that a considerable percentage reported all the areas to some extent level also. It is noteworthy that below 10% of the teachers reported that the contents, materials and activities provided in the science textbook are not at all suitable.

Majority of the teachers report that the text book is suitable with respect to the contents, materials and activities

Problems faced while transacting lessons in science

The teachers were asked to list the problems faced while transacting the lessons, if any. The responses of teachers in this regard are given below in Table 6.10

Table 6.10
Problems faced while transacting lessons in science

Problems	Responses in percentage	
	Yes	No
1. In designing experiments	22.09	60.74
2. In the making of improvised materials	25.77	46.01
3. In ensuring the full participation of the students	14.11	58.90
4. In ensuring the development of processing skills	10.43	61.96
5. To analyze and conclude	13.50	57.06
6. To prepare notes to do experiments	9.20	63.19
7. In finding out the resources that would help in the attainment of targeted learning outcomes.	14.72	54.60
8. To make use of learning resources fruitfully	11.66	56.44
9. Any other	7.36	17.79

From the table 6.10 it is found that 50%-60% of the teachers found difficulty in designing experiments, in ensuring full participation of the students, In preparing notes to do experiments, in ensuring the development of processing skills, in analyzing and concluding, in finding out the resources that would help in the attainment of targeted learning outcomes and in making use of learning resources fruitfully. Nearly 47% of them reported that they found difficulty in the making of improvised materials whereas 22.09% found no difficulty. 22.09% found no difficulty in designing experiments.

It is also noted that 7% to 14.72% found difficulty in finding out the resources that would help in the attainment of targeted learning outcomes, in ensuring the full participation of the students, in analyzing and concluding, in making use of learning resources fruitfully, in ensuring the development of processing skills and in preparing notes to do experiments.

Inference: Majority of the teachers do not find difficulty while transacting the lessons in science. Yet a considerable proportion of teachers find difficulties In the making of improvised materials (25.77%) and. n designing experiments(22.09%)

Observation regarding the Teacher Text

The responses of teachers regarding their observation of teacher text in class IV science were collected and analyzed. The details are given in Table 6.11

Table 6.11
Observation of teachers regarding the Teacher Text

Statements	To a great extent(%)	To some extent (%)	Not at all (%)
• Gives adequate knowledge about the learning aims of science	67.48	20.86	11.66
• Clear indication regarding how to plan each learning activity so as to attain the targeted learning outcomes is given.	75.46	12.27	12.27
• Provides sufficient extra knowledge that helps in conceptualization/ideation	62.58	25.15	12.27
• Different learning techniques/strategies that are useful in learning science are also provided.	59.51	28.22	12.27

From the table 6.11 It Is clear that majority of the teachers (62.58%-75.46%) reported to a great extent that clear indication regarding how to plan each learning activity so as to attain the targeted learning outcomes were given in the teacher text, adequate knowledge about the learning aims of science were given, and the teacher text provided sufficient extra

knowledge that helps in conceptualization/ ideation. About 60 % of the teachers reported to a great extent that the teacher text provided different learning techniques/strategies that are useful In learning science. At the same time, It Is noted that 28.22% reported the teacher text provided different learning techniques /strategies that are useful in learning science to some extent and 25.15% reported that clear Indication regarding how to plan each learning activity so as to attain the targeted learning outcomes was given in the teacher text to some extent. It is also noted that 20.86% agreed that the teacher text gives adequate knowledge about the learning aims of science to some extent. It is also noted that a considerable percentage of teachers the teacher text did not provide any of the statements mentioned above.

Majority of the teachers(60-75%) agree to a great extent that the teacher text of Class IV science gives adequate knowledge about the learning aims of science , gives clear indication regarding how to plan each learning activity so as to attain the targeted learning outcomes, provides sufficient extra knowledge that helps in conceptualization/ideation and provides different learning techniques/strategies and that are useful in learning science.

VII. CLASSOBSERVATION SCHEDULE:STANDARDIV

This section deals with the analysis of the data collected through class observation using rubrics. (Standard IV) each for 5 subjects: Malayalam, English, Environmental Science and Mathematics were observed. The details are given under appropriate heads.

Malayalam

Table 7.1
SUBJECT: MALAYALAM

Sl. No	Dimensions		Very Good	Good	Needs Improvement	Does Not Meet Standards	No Remarks
1	Teaching Manual		4	4	1	1	
2	Preparation		2	6	1	1	
3	Interest and Motivation		3	5	1	1	
4	Learning Activities	Nature	4	5		1	
		Continuity	5	4		1	
		Use of Learning Materials	3	5	1	1	
		Knowledge Construction through Learning Activities	5	3		1	1
		Development of Attitude and Values	3	4	2	1	
		Involvement of Learners	2	6	1	1	
5	Learning Environment		4	4	1	1	
6	Classroom Intervention		5	4		1	
7	Reflective Thought		1	7		2	
8	Consolidation		2	7		1	
9	Evaluation Process	Process	4	5		1	
		Self Assessment					
		Peer Assessment					
		Portfolio					
10	Overview of the Class		2	5	1	2	
	Total						

1. Teaching Manual (TM)

Observation of classes of 10 teachers (Table –) indicated that four teachers have prepared TM using additional resources and creative activities other than Teacher Text, whereas four teachers prepared the TM using essential resources and activities. It is also observed that two TMs were prepared based on the curricular approach to some extent.

2. Pre-planning

It is found that two teachers ensured the necessary pre-requisites using variety of creative activities, while six teachers provided a variety of learning activities to get adequate pre-requisites to all learners. At the same time two teachers provided activities necessary for basic pre-requisite knowledge to very few learners.

3. Interest and motivation

Table - shows that only three teachers provided life-oriented and thought provoking activities like description, stories and leaning materials for developing interest and motivation among the learners. At the same time five teachers made the class interesting using descriptions, stories and learning materials. Two of them motivated the learners by only describing the content and asking questions.

4. Learning Activities

Observation of classes of 10 teachers indicated that, in four classes learning activities suggested in TB and TT used by teachers were highly effective for developing reflective thinking among learners, whereas in five classes variety of learning activities provided were effective. In only one class it is found that learning activities were carried out mechanically.

Five of the teachers transacted the content in a sequential order. Spontaneous progress in learning and timely recording in the TM were there in another four classes observed. But in one of the classes continuity was losing in certain places.

Among the 10 teachers three teachers were using innovative learning aids , prepared by local resources ,for attaining conceptual clarity and seven teachers used easily accessible learning aids recommended in the curriculum and five teachers used minimum number of learning aids already available in the school and it is pathetic to observe that two teachers were not even using already available learning aids in the school.

Regarding the knowledge construction through learning activities it is found that four teachers supported the learners to attain higher level of knowledge construction through variety of learning strategies including reflective questioning and debating, three teachers intervenes actively by discussion and clearing doubts whereas three teachers only tries to clarify the doubts through explanations .

It is seen that three teachers are providing slots for learning activities to develop attitudes, values and social responsibilities stipulated in the content for intellectual and emotional development, four teachers provided learning activities for intellectual and emotional development and through advice and suggestions were the measures taken by three teachers for developing attitudes and values.

It is again observed that three teachers helped learners to identify their roles and ensured their involvement in group and individual activities, other five teachers helped learners to identify their roles in learning situations correctly, but the involvement of all learners were not ensured and two teachers didn't care for the identification of their roles and didn't ensure the involvement of all learners equally in learning process and is significant to note that those learners who are intrinsically motivated only involved in the learning activities.

5. Learning Environment

From the classes observed it is noted that two teachers created infrastructure/ICT facilities and independent social and emotional environment suitable for learning activities for all types of learners, while another six teachers provided learning activities based on available infrastructure/ICT facilities and creates essential situation necessary for independent social and emotional environment. It is serious to consider that two teachers are not even using available infrastructure/ICT facilities and two classes observed were teacher centered.

6. Class room intervention

As per the analysis it is observed that five teachers intervened with all types of learners as mentors rather than teachers whereas four teachers made only essential interventions as teachers to attain learning outcomes and one of them intervened only as much required to transact the content.

7. Reflective thinking

It is observed that out of the 10 classes observed one teacher provide opportunity for reflective thinking in the concerned class itself and provided remedial measures and other seven teachers provided opportunity for reflective thinking. It is also noted that activities provided by two teachers were not adequate for reflective thinking.

8. Consolidation

It is found that in the two classes observed teacher consolidated individual and group activities so as to ensure the learning during and at the end of the class, whereas five teachers consolidated group activities during and at the end of the class, whereas in another three classes observed teachers consolidated only at the end of the class.

9. Evaluation

From class room observation it is found that four teachers used variety of strategies for different types of evaluation, while 4 teachers were using variety of strategies for evaluating learning outcomes based on the content. It is also seen that only one teacher depended on certain evaluation strategies suggested in the text book. Evaluation as envisaged by curriculum was not followed by one of the teachers.

10. Overview

In most of the Malayalam classes observed, the teaching manual, Preparation, Interest and Motivation, Learning Activities, Learning Environment, Classroom Intervention, Consolidation, Evaluation Process and Overview of the Class are very good or good but the development of attitudes and values among children is not seen in all classes alike indicating the need for improvement.

English

Table 7.2
SUBJECT: ENGLISH

Sl. No	Dimensions	Very Good	Good	Needs Improvement	Does Not Meet Standards	No Remarks	
1	Teaching Manual	3	5	2			
2	Preparation	1	8	0	1		
3	Interest and Motivation	4	4	1	1		
4	Learning Activities	Nature	3	6	1		
		Continuity	2	7	1		
		Use of Learning Materials	1	8		1	
		Knowledge Construction through Learning Activities		9		1	
		Development of Attitude and Values	1	7	1	1	

		Involvement of Learners	4	5	1		
5	Learning Environment		1	7	2		
6	Classroom Intervention		5	2	2	1	
7	Reflective Thought		4	3	2	1	
8	Consolidation		3	4	2	1	
9	Evaluation Process	Process	3	5	1	1	
		Self-Assessment					
		Peer Assessment					
		Portfolio					
10	Overview of the Class		1	6	3		
	Total						

1. Teaching Manual (TM)

Observation of classes of 10 teachers (Table:7.2) indicated that three teachers have prepared TM using additional resources and creative activities other than Teacher Text, whereas five teachers prepared the TM using essential resources and activities. It is also observed that two TMs observed need improvement.

2. Pre-planning

It is observed that only one teacher ensured the necessary pre-requisites using variety of creative activities while eight teachers provided a variety of learning activities to get adequate pre-requisites to all learners. At the same time only one teacher provided activities necessary for basic pre-requisite knowledge to very few learners. But only one teacher not at all provided any activities to ensure necessary pre-requisite.

3. Interest and motivation

Table - shows that only four teachers provided life-oriented and thought provoking activities like description, stories and learning materials for developing interest and motivation among the learners. At the same time four teachers made the class interesting using descriptions, stories and learning materials. Two of them motivated the learners by only describing the content and asking questions. It is observed that no effort was taken by one of the teachers to make the class neither interesting nor motivating.

4. Learning Activities

Observation of classes of 10 teachers indicated that, in three classes learning activities suggested in TB and TT used by teachers used were highly effective for developing reflective thinking among learners, whereas in six classes variety of learning activities provided were effective. In the remaining one class it is found that learning activities were carried out mechanically.

Two of the teachers transacted the content in a sequential order. Spontaneous progress in learning and timely recording in the TM were there in another seven classes observed. But in one class continuity was losing in certain places.

Among the ten teachers only one teacher was using innovative learning aids, prepared by local resources, for attaining conceptual clarity and seven teachers used easily accessible learning aids recommended in the curriculum and eight teachers used minimum number of learning aids already available in the school and it is pathetic to observe that one teacher was not even using already available learning aids in the school.

Regarding the knowledge construction through learning activities it is found that nine teachers intervened actively by discussion and clearing doubts whereas two teachers only try to clarify the doubts through explanations and one of the teachers was providing opportunity for recalling facts through repeated drill and practice.

It is seen that only one teacher is providing slots for learning activities to develop attitudes, values and social responsibilities stipulated in the content for intellectual and emotional development, seven teachers provided learning activities for intellectual and emotional development and through advice and suggestions were the measures taken by two teachers for developing attitudes and values.

It is again observed that four teachers helped learners to identify their roles and ensured their involvement in group and individual activities, other five teachers helped learners to identify their roles in learning situations correctly, but the involvement of all learners were not ensured and only one teacher didn't care for the identification of their roles and didn't ensure the involvement of all learners equally in learning process and is significant to note that those learners who are intrinsically motivated only involved in the learning activities.

5. Learning Environment

From the classes observed it is noted that only one teacher created infrastructure/ICT facilities and independent social and emotional environment suitable for learning activities for all types of learners, while seven teachers provided learning activities based on available infrastructure/ICT facilities and creates essential situation necessary for independent social and emotional environment. It is serious to consider that two teachers were not even using available infrastructure/ICT facilities.

6. Class room intervention

As per the analysis it is observed that five teachers intervened with all types of learners as mentors rather than teachers whereas two teachers made only essential interventions as teachers to attain learning outcomes and three of them intervened only as much required to transact the content.

7. Reflective thinking

It is observed that out of the 10 classes observed four teachers provide opportunity for reflective thinking in the concerned class itself and provided Remedial measures and other three teachers provided opportunity for reflective thinking. It is also noted that activities provided by three teachers were not adequate for reflective thinking.

8. Consolidation

It is found that in three classes observed, teachers consolidated individual and group activities so as to ensure the learning during and at the end of the class, whereas four teachers consolidated group activities during and at the end of the class, whereas in other three classes observed teachers consolidated only at the end of the class.

9. Evaluation

From class room observation it is found that three teachers used variety of strategies for different types of evaluation, while five teachers were using variety of strategies for evaluating learning outcomes based on the content. It is also seen that two teachers depended on certain evaluation strategies suggested in the text book.

10. Overview

From the analysis of English classes, it can be concluded that among the 10 teachers observed, the performance of teachers is up to the mark with respect to Teaching Manual, Preparation, Interest and Motivation, Learning Activities, Learning Environment, Classroom Intervention, Reflective Thought, Consolidation, Evaluation Process and

Overview of the Class, in most of the classes, but there are cases in which improvement is needed with respect to teaching manual,, Learning Environment, Classroom Intervention, Reflective Thought,Consolidation and overview

Environmental science

Table 7.3
SUBJECT: EVS

Sl. No	Dimensions		Very Good	Good	Needs Improvement	Does Not Meet Standards	No Remarks
1	Teaching Manual		3	5	4		
2	Preparation		4	5	3		
3	Interest and Motivation		1	7	3		1
4	Learning Activities	Nature	3	7	2		
		Continuity	4	5	2	1	
		Use of Learning Materials	2	6	3	0	1
		Knowledge Construction through Learning Activities	4	5	2	0	1
		Development of Attitude and Values	1	3	5	2	1
		Involvement of Learners	5	4	2	1	
5	Learning Environment		3	5	3	1	
6	Classroom Intervention		6	2	2	2	
7	Reflective Thought		3	1	7	1	
8	Consolidation		3	5	2	2	
9	Evaluation Process	Process	2	4	3	3	
		Self -Assessment					
		Peer Assessment					
		Portfolio					
10	Overview of the Class		1	5	4	1	1
	Total						

1. Teaching Manual (TM)

Observation of classes of 12 teachers (Table 7.3) indicated that only three teachers have prepared TM -using additional resources and activities other than Teacher Text, whereas five teachers prepared the TM using essential resources and activities. It is also observed that four of the TMs observed need improvement.

2. Pre-planning

It is observed that only four teachers ensured the necessary pre-requisites using variety of creative activities, while five teachers provided a variety of learning activities to get adequate pre-requisites to all learners. At the same time three teachers provided activities necessary for basic pre-requisite knowledge to very few learners.

3. Interest and motivation

Table - shows that only one teacher provided life-oriented and thought provoking activities like description, stories and learning materials for developing interest and motivation among the learners. At the same time seven teachers made the class interesting using descriptions, stories and learning materials. At the same time three of them motivated the learners by only describing the content and asking questions. It is observed that no effort was taken by one of the teachers to make the class neither interesting nor motivating.

4. Learning Activities

Observation of classes of 12 teachers indicated that, in three classes learning activities suggested in TB and TT used by teachers used were highly effective for developing reflective thinking among learners, whereas in seven classes variety of learning activities provided were effective. In two other classes it is found that learning activities were carried out mechanically.

Four of the teachers transacted the content in a sequential order. Spontaneous progress in learning and timely recording in the TM were there in another five classes observed. But in three classes continuity was losing in certain places.

Among the 12 teachers two teachers were using innovative learning aids, prepared by local resources, for attaining conceptual clarity and six teachers used easily accessible learning aids recommended in the curriculum and three teachers used minimum number of learning

aids already available in the school and it is pathetic to observe that only one teacher was not even using already available learning aids in the school.

Regarding the knowledge construction through learning activities it is found that four teachers supported the learners to attain higher level of knowledge construction through variety of learning strategies including reflective questioning and debating, five teachers intervene actively by discussion and clearing doubts whereas two teachers only try to clarify the doubts through explanations and one of the teachers was providing opportunity for recalling facts through repeated drill and practice.

It is seen that only one teacher was providing slots for learning activities to develop attitudes, values and social responsibilities stipulated in the content for intellectual and emotional development, three teachers provided learning activities for intellectual and emotional development and through advice and suggestions were the measures taken by five teachers for developing attitudes and values. It is serious to note that three teachers didn't provide situations for the development of attitudes and values.

It is again observed that five teachers helped learners to identify their roles and ensured their involvement in group and individual activities, other four teachers helped learners to identify their roles in learning situations correctly, but the involvement of all learners were not ensured and three teachers didn't care for the identification of their roles and didn't ensure the involvement of all learners equally in learning process.

5. Learning Environment

From the classes observed it is noted that three teachers created infrastructure/ICT facilities and independent social and emotional environment suitable for learning activities for all types of learners, while five teachers provide learning activities based on available infrastructure/ICT facilities and created essential situation necessary for independent social and emotional environment. It is serious to consider that three teachers were not even using available infrastructure/ICT facilities and one of the classes was teacher centered.

6. Class room intervention

As per the analysis it is observed that six teachers intervened with all types of learners as mentors rather than teachers whereas two teachers made only essential interventions as teachers to attain learning outcomes and two of them intervene only as much required to transact the content and no proper teacher interventions were seen in another two classes.

7. Reflective thinking

It is observed that out of the 12 classes observed three teachers provide opportunity for reflective thinking in the concerned class itself and provided Remedial measures and only one teacher provides opportunity for reflective thinking. It is also noted that eight teachers mainly focused on timely evaluation and recording of performance of students.

8. Consolidation

It is found that in the three classes observed teachers consolidated individual and group activities so as to ensure the learning during and at the end of the class, whereas the other five consolidated group activities during and at the end of the class, whereas in other two classes observed teachers consolidated only at the end of the class, but no consolidation was there in other two classes observed.

9. Evaluation

From class room observation it is found that two teachers used variety of strategies for different types of evaluation, while four teachers were using variety of strategies for evaluating learning outcomes based on the content. It is also seen that three of the teachers depended on certain evaluation strategies suggested in the text book. Evaluation as envisaged by curriculum was not followed by three of the teachers.

10. Overview

On analysis of the Environmental science classroom observation, it was found that though in most cases Teaching Manual, Preparation, Interest and Motivation, Learning Activities, Learning Environment, Classroom Intervention, Consolidation, Evaluation Process and Overview of the Class are very good or good, a considerable number of classes need further improvement in these areas. The area reflective thinking need improvement in most of the classes

Mathematics

Table 7.4

SUBJECT: MATHEMATICS

Sl. No	Dimensions	Very Good	Good	Needs Improvement	Does Not Meet Standards	No Remarks	
1	Teaching Manual	2	9	0	1		
2	Preparation	3	8	1			
3	Interest and Motivation	1	7	3	0	1	
4	Learning Activities	Nature	7	3	0	1	1
		Continuity	4	7	1	0	
		Use of Learning Materials	3	7	0	1	1
		Knowledge Construction through Learning Activities	3	7	1	1	
		Development of Attitude and Values	2	7	3		
		Involvement of Learners	6	5	1		
5	Learning Environment	1	7	3		1	
6	Classroom Intervention	6	4	1	0	1	
7	Reflective Thought	5	4	2	0	1	
8	Consolidation	5	4	2	1		
9	Evaluation Process	Process	5	4	2	1	
		Self-Assessment					
		Peer Assessment					
		Portfolio					
10	Overview of the Class	0	10	1	0	1	
	Total						

1. Teaching Manual (TM)

Regarding the observation of classes of 12 teachers (Table 7.4), four teachers prepared TM using additional resources and creative activities other than Teacher Text, whereas five teachers prepared the TM using essential resources and activities and one of the teaching

manuals needs improvements in resources and activities to be used were not at all included in it.

2. Pre-planning

It is observed that only three teachers ensured the necessary pre-requisites using variety of creative activities, while six teachers provided a variety of learning activities to get adequate pre-requisites to all learners. At the same time one teacher provided activities for acquiring necessary basic pre-requisite knowledge to very few learners.

3. Interest and motivation

Table 7.4 shows that only one teacher provided life-oriented and thought provoking activities like description, stories and learning materials for developing interest and motivation among the learners. Five teachers made the class interesting using descriptions, stories and learning materials. At the same time three of them motivated the learners by only describing the content and asking questions. It is serious to note that the activities provided by one of the teachers were dull and boring.

4. Learning Activities

Observation of classes of 10 teachers indicated that, in six classes learning activities suggested in TB and TT used by teachers used were highly effective for developing reflective thinking among learners. At the same time in three classes variety of learning activities provided were effective and that provided by one of the teachers were dull and not suitable for attaining learning outcomes.

Two teachers transacted the content in a sequential order. Spontaneous progress in learning and timely recording in the TM were there in six classes observed. It is significant to consider that in two classes continuity was losing in certain places.

Among the 10 teachers three teachers were using innovative learning aids, prepared by local resources, for attaining conceptual clarity and five teachers used easily accessible learning aids recommended in the curriculum and two teachers were not even using available learning aids.

Regarding the knowledge construction through learning activities it is found that three teachers supported the learners to attain higher level of knowledge construction through variety of learning strategies including reflective questioning and

debating, five teachers intervened actively by discussion and clearing doubts whereas two teachers only tried to clarify the doubts through explanations.

It is seen that two teachers are providing slots for learning activities to develop attitudes, values and social responsibilities stipulated in the content for intellectual and emotional development, five teachers provided learning activities for intellectual and emotional development and advice and suggestions were the measures taken by three of the teachers for developing attitudes and values.

It is again observed that regarding the intervention, four teachers helped learners to identify their roles and ensured their involvement in group and individual activities, five teachers helped learners to identify their roles in learning situations correctly, but the involvement of all learners were not ensured and one teacher didn't care for the identification of their roles and didn't ensure the involvement of all learners equally in learning process.

5. Learning Environment

From the classes observed it is noted that one teacher creates infrastructure/ICT facilities and independent social and emotional environment suitable for learning activities for all types of learners, while three teachers provided learning activities based on available infrastructure/ICT facilities and creates essential situation necessary for independent social and emotional environment. It is serious to consider that three teachers are not even using available infrastructure/ICT facilities and two class was teacher centered.

6. Class room intervention

As per the analysis it is observed that five teachers intervened with all types of learners as mentors rather than teachers whereas three teachers made only essential interventions as teachers to attain learning outcomes. One of the teachers intervenes only as much required to transact the content.

7. Reflective thinking

It is observed that out of the 10 classes observed four teachers provided variety of opportunities for reflective thinking in the concerned class itself and provided remedial measures and other four teachers provided opportunity for reflective thinking. It is also noted that activities/situations provided by two teachers were not adequate for providing reflective thinking.

8. Consolidation

It is found that in the five classes observed teachers consolidated individual and group activities so as to ensure the learning during and at the end of the class, whereas the three classes consolidated group activities during and at the end of the class. But in two classes observed, teachers consolidated only at the end of the class.

9. Evaluation

From class room observation it is found that three teachers used variety of strategies for different types of evaluation, while three teachers were seen using variety of strategies for evaluating learning outcomes based on the content. It is also seen that four of the teachers depend on certain evaluation strategies suggested in the text book one teacher and in one class evaluation envisaged by curriculum was not taking place.

10. Overview

From analysis of the 12 mathematics classes, it is seen that in most cases, the Teaching Manual, Preparation, Interest and Motivation, Learning Activities, Learning Environment, Classroom Intervention, Reflective Thought, Consolidation, Evaluation Process and Overview of the Class, yet in some classes the areas interest and motivation, attitude and values, learning environment and reflective thinking need further improvement

VIII. Answer sheet analysis Subject wise

Answer sheets of the fourth standard students of all subjects were collected from selected schools. It was reevaluated by considering the learning outcomes stated in the text book and activities given in the worksheet. Analysis was done for all the subjects Malayalam, English, Mathematics and Environment Science separately. The details are given below

Malayalam

Answer sheets of the fourth standard students of all subjects were collected from selected schools. It was reevaluated by considering the learning outcomes stated in the text book and activities given in the worksheet. Analysis was done for all the subjects Malayalam, Mathematics and Environment Science separately. The details are given below.

Complete the conversation

Even though the students are supposed to acquire the skills to prepare a conversation using suitable vocabulary and signs with clarity of ideas appropriate to the situation, a considerable number of students haven't acquired the skill.

When the answer scripts were analyzed following were the limitations noticed:

- Lack of understanding to find out words/phrases appropriate to the context with clarity of ideas
- No skill in using appropriate language and expressions suitable to the context
- No creativity is found
- Idea is not complete
- There should be accuracy in letters, words and symbols
- Didn't comply with the rules of syntax
- Sentence structure is not appropriate

Poster creation

- Majority of students couldn't complete the activity maintaining the processing skills related to poster creation
- The children need to acquire the skills for creativity, identifying words/usages appropriate to the context. Also should acquire the skill for clarity of ideas.

Description

Children experience difficulty in completing the activity using letters and signs with clarity of ideas and conforming to the sentence structure. Following are the limitations found after analyzing the answer sheets:

- The students haven't got complete understanding about the form of discourse of description based on his /her previous knowledge which he got as a part of classroom activities.
- There is no accuracy in the clarity of ideas, appropriate language, sentence structure, words, symbols etc.

Note of reminiscence

- Only a very small percentage of students possess the ability to prepare note of reminiscence maintaining its stages/phases.

- Students need to acquire skills for using letters, words/usages, sentence structure, and clarity of ideas etc. suitable to the context.

Note of appreciation

- Children face difficulty in preparing note of appreciation based on usage, description, euphony (beauty of words)

Poem completion

Children face a practical difficulty in engaging in independent creations using appropriate language/expression without spelling mistakes. The reasons for this include inappropriate usages, spelling mistakes, lack of understanding in using signs and lack of practice.

- Children face difficulty in completing the form of discourse, completing the poem, creatively and with clarity of ideas using words, usages, description etc.

Mathematics

Activities given in the mathematics question paper to evaluate the achievement of stated outcome were How much (addition), Finish the house (understanding number pattern and geometrical figures), Find the winner (), Price (), Balance (subtraction), and Complete the pattern. Findings derived after analyzing all the Mathematics answer sheets of second standard students separately for each activity are given below.

Remarks

- Found out the correlation and has written the number according to place value
- Couldn't interpret the numbers in different methods
- Compared the numbers and formulated a pattern. When asked to write the name of the unit with lesser (smaller) sum, the child wrote the sum.
- Formulated inference by comparing time
- Time is recorded accurately as a.m, p.m
- Analyzed the questions and formulated inference.
- Couldn't express in writing what they understood.
- Didn't formulate inference
- Corrected some data in the table
- Analyzed the problem
- Drew an inference

- Explained the things identified
- Didn't attend the questions
- Place value and interpretation completely went wrong.
- Didn't record the methods of identification
- Analyzed the table and arrived at a conclusion
- Analyzed 'time' and arrived at a conclusion
- Number interpretation is fully wrong
- Didn't finish the number of notes according to their place

Analysis

Activity 1

- 42% children found out the number of notes according to the place value of numbers
- Not even one child could interpret a number according to value

Activity 2

- Majority (83%) students could arrange the numbers in the table in the ascending and descending order.
- Can identify a particular number from that majority (83%)

Activity 3

- Could identify the minutes and seconds time
- 50% of children are not able to solve the practical issues related to this

Activity 4

- Can identify a m and p m
- But goes wrong when moves to 12 hour clock

Activity 5

- Children face difficulty to analyze the problem and formulate inferences.
- They have tried to analyze the problem
- When they were asked to write the things they understood from the questions, they had done some operations
- Face difficulty in writing what is to be identified in the problem

Environmental Science

Remarks

- Couldn't identify the features of fish adaptive to aquatic life
- Identified some pictures
- The child couldn't find out and relate the events in the history of freedom struggle
- The child is not at all competent to explain the important events
- The child is able to draw the beaks and legs of birds but not able to write down the features of beaks and legs and connect them
- Didn't write fully the interventions of humans which caused environmental destruction and also the ways of protecting the environment
- Completed the table, hasn't written the physical features of aquatic organisms
- Didn't write A part answer
- Just draw the picture of leaf in part B
- Has not achieved understanding of the ideas
- Didn't draw tap root system
- Didn't identify the picture
- Has not attempted 'a' and 'b' parts
- Only flag in 'c' part
- Has not achieved the intended learning outcomes
- Completed the map of ideas correctly
- Wrote only some letters similar to the names of the leaders of freedom struggle
- Has not tabulated the events
- The child has not reinforced letters and alphabets
- The child has got the idea; but not able to express
- The adaptations of fish are not recorded fully
- Picture is almost complete
- Couldn't connect the adaptations to food collections
- Has got comprehension of ideas

- Answers are written in accordance with the ideas
- Identified the leaders
- Wrote the answers in such a way to include the ideas fully
- Went wrong when names were depicted geographically
- Identified the picture
- Found out the important events
- Marked the table correctly
- While there is an accurate recording of the activities to protect the environment, the activity undertaken has been lessened
- Tabulated the organisms correctly
- Enlisted the features
- Recorded the answer using the correct idea
- Tabulated the picture after observation
- Didn't write well about the history of freedom struggle
- Wrote the characteristic features of organisms
- Tabled the reasons
- Has not completed the activities undertaken against environmental destruction
- Lack of clarity in adaptations
- The note recorded is not complete
- The student of English medium class wrote answers both in English and Malayalam
- Enlisted the activities for the protection of environment
- Has not finished the activities undertaken
- Has not comprehension of ideas. Children are able to classify things. They can look and write words but not able to write their own ideas. Can write only some letters instead of words.

Analysis

Activity1.

From analysis of the answer sheets it was found that 91.67% of the students under study could classify the listed organisms on the basis of their habitats. But, only 16.67% could list the adaptations of the fish as suited to its aquatic life. This shows that even those who

could classify organisms on the basis of their habitats could not relate the habitat and adaptations of organisms

Though sufficient activities and information are given in the teacher text and textbook, the students could not achieve the learning outcome properly. This may be because the classroom strategies applied might not have gone into sufficient depth as was expected

Activity 2

Majority of the students under study (58.33%) complete the concept map properly. But only 4.67 percent could relate the taproot system and reticulate venation to dicots, and fibrous root system and parallel venations to monocots

Activities for achieving the learning outcomes related to classification of plants based on their root system and venation, the relation between root system and venation are given in the textbook and teacher text. Yet majority of the students could not differentiate between taproot system and fibrous root system. This indicates that if at all these activities were performed in the class, they were performed in an effective way in which they ought to have performed.

Activity 3

It is seen that 83.33 % of students face difficulty in identifying the physical features of birds adaptive to their ways of travel (flight) and procuring food.

The activities provided in HB and TB are not sufficient for promoting observation, drawing of inferences, recording etc and making them more accurate and subtle. The children too may not have been able to acquire this learning outcome due to the lack of comprehensive planning and implementation of activities in the classroom and outside for providing firsthand experience which promotes purposive observation.

Activity 4

It is a sad that only 33.33% of the students under study could find out the interference of human beings in destroying natural habitats of his/her locality. This indicates that the activities given in the classroom were not made in connection with the real life of the child so that the child is not able to feel the significance of what is learned as related to his life

Only 16.67 % of the students could plan activities against environmental devastations

The activities provided in the teacher text and textbook should be made more comprehensive and sharp to develop ideas and skills among the children. Opportunities should be provided for the children to relate the acquired knowledge to his own life so that the child can own the idea more.

English

Activity 1

Add more lines

1 reads comprehends and enjoys simple poems

2 identifies rhyming words from the poem

3 adds lines to a poem following a set pattern

Activity 2

Thoughts

1 Reads and comprehends the given context

2 Matches his thoughts with the context

3 Express thoughts and feeling in simple language

Activity 3

Conversation

1 identifies the situation

2 identifies the characters

3 Add more exchanges appropriate to the context

Activity 4

Notices

1 Remembers the features of notice

2 Identifies the message to be conveyed

3 Develop a notice for the given context

Activity 5

Description

- 1 Collects details needed from the picture
- 2 Expresses the ideas using suitable vocabulary
- 3 Writes a short description

Analysis: English

Out of Eleven answer sheets the following are the answered well

Activity 1

For adding lines 90% of the students answered well. One or two could not identify the rhyming words and set pattern

Activity 2

Many of the children got idea from the given context .But they are unable to express it as a thought in a simple language.

Activity 3 In reading and comprehension they do not have any difficulty

But some of them are unable to construct dialogues of their own. There was so many spelling mistakes

Activity 4 Most of them know the features of a notice .But they are unable to convey the message.

Activity 5

They could get ideas from the pictures given .But could not get a holistic view because, the picture given was a collage. They wrote individual sentences without any connection .One of them wrote it as a description

VIII.TEXT BOOK ANALYSIS

Table 8.1

Class IV

Sub: Malayalam

Details	Explanation
<p>1. The lessons do justice to constructivist approach.</p> <p>Different methods are adapted to present ideas on the lessons. Therefore transaction of an idea to the learners is quite time consuming.</p>	<p>Unit 1 – There are possibilities to present the concepts of lessons of Unit1 in various discourses/forms like description, picturization, poster, acting, news etc.. Some more time is needed to present the activities.</p> <p>Unit 2 – It consumes a lot of time to read the poem ‘EntePanineerchedi’ imbibing its themes and emotions and then prepare a description or appreciation note of it.</p> <p>Unit 3- the autobiographical sketch can be prepared only after conducting a discussion about changes in agrarian life in relation to contemporary life and giving more activities based on it.</p> <p>Unit 4 – It may not be possible for the learners to prepare a live description with apt emotions just because they have read a live description. ICT avenues have to be used or explored for these.</p> <p>Unit 5 – Even though in the teacher text, learning out related to preparation of speech is given, such activities are not given in the lesson.</p> <p>Unit 6 – Instead of asking the learners to prepare a note after going through the pictures or narration given on page 97, it will be better if they are given a change of see ‘Kathakali’ using ICT facilities and asked to prepare a note.</p>
<p>2. The contents of unit2,3 and 5 are not suited to attain the learning outcomes</p>	<p>Unit 2 – It is very difficult to recite and enjoy the poem ‘EntePanineerchedi’ understanding fully its meaning, sounds and literary devices. It is not suitable for the level of learners.</p> <p>Unit 3 – More activities should be given to prepare an autobiography</p> <p>Unit 5 – Activities related to the learning outcome ‘Preparation of Speech’ is not given.</p>

<p>3. Suitability of content for process oriented learning.</p> <p>The content of all the units except unit 1 are suitable for process oriented learning In unit 1 The vastness of portions/contents defers time bound completion of lessons.</p>	<p>Unit 1 – More time is needed to present the ideas of the lesson in different ways like description, picturization, poster, acting, NEWS etc..</p>
<p>4. Variety of learning activities</p> <p>Even though variety of activities are included, difficulties may be encountered regarding time bound completions of them</p>	
<p>5. Language used is interactive and childfriendly</p> <p>The language used befits the lessons used.</p>	
<p>6. The suitability and legibility of pictures, graphs, maps.</p>	
<p>7. Lessons that need more explanations</p>	<p>It may be better to give more models related to language elements.</p>
<p>8. Lessons where the description /narration needs to be simplified.</p> <p>Simplification may not be needed, but more clarification in certain areas may be given.</p>	
<p>9. Possibilities of continuous evaluation</p> <p>Possibilities of continuous evaluation exist in all lessons.</p>	
<p>10. Ensuring no type of discrimination</p> <p>When we examine lessons and the activities, enhances of discrimination are very rare</p>	<p>ICT spots taking into account differently abled children may be included</p>
<p>11. Possibilities of democratic values</p> <p>Activities given in the lesson promote democratic values and attitudes.</p>	<p>Teachers should intervene in collaborative or group work of activities to ensure active participation of all the learners.</p>
<p>12. Child friendly layout</p> <p>The present layout is apt enough to influence the thinking of learners qualitatively.</p>	
<p>13. The suitability of teacher text in transacting the lessons.</p> <p>OR</p>	

<p>Does the teacher text facilitate transaction of lessons? The teacher text facilitates transaction of lessons. At the same time, more explanation and activities related to language elements may be given.</p>	
<p>14. Others</p>	<p>ICT possibilities of all lessons may be given in teacher text. Poems which can recited imbibing its music rhythm an emotions may be included in TB.</p>

Textbook analysis: English

Details

Constructivism is the basic principle on which the English reader is developed.

Explanation

There are so many slots to construct knowledge in the reader of IV CLASS. But it is not enough. Teachers' page given (page 31 -33) is very helpful for the teachers to implement activities.

In each lesson there should be a language element to acquire. For example, Prepositions, pronouns etc.

There should be activities to confirm the meaning of new vocabulary introduced in each lesson. There are rarely in the present textbook.

Details

Through a series of learning activities in each unit, the learning outcomes evolve.

Explanation

Language elements are a part of learning outcomes.

Repeated situations are not provided in the present reader to practice language elements or grammar.

The activities given are not enough to develop skills, attitudes and values.

Work sheets should be attached with each lesson in the reader itself because children want to do more.

Details

The curriculum transaction is based on activity, process, ensuring learning, suitable to achieve, learning objectives, environmental, considering areas of development, suitable to the nature of the learner.

Integrating learning and evaluation

Explanation

The present reader gives more importance to lengthy stories. It is not easy for a fourth standard child to get the story in a single reading.

The process of learning is hidden in the textbook. If there is not a teacher text it would be difficult to transact.

Units 1, 2 and 4 are environment based. The reader considers areas of development but the activities are not enough to ensure it. the reader integrates learning and evaluation. The language used is not at the level of children. A evaluation tool should be attached with each unit.

Details

It is understood that the acquired knowledge, abilities and inclinations of learners from various back grounds are different. It is important to accept this variety and create learning experiences, considering individual differences and multiple intelligence.

Explanation

The differential need of the learners can be met by flexibly selecting and adopting learning activities. For that more activities like puzzles, new games etc should be included.

For the children of different levels activities of different level should be there. Execution of different flexible assessment strategies should be included in the reader. Now it is not there.

Details

The reader should be very attractive and child friendly.

Explanation

The textbook not designed in a child friendly manner. The pictures given are not clear.

It contains lengthy lessons. It is necessary to reduce the content and include more simple stories and poems.

Layout of the lessons should be more attractive. There should be simple stories to enjoy themselves.

Details

The reader should be designed in such a way that various skills of language integrated and scope for constructing different discourses is ensured.

Explanation

On the basis of the present English reader the construction of different discourses is not easy.

It is hard to follow the reader for a fourth standard child.

Details

Reading context

Explanation

Reading context given are not simple up to the level of children especially in unit-5.

It should be reduced in one or two pages that the child could get it in a single reading. For that no of stories should be increased.(As in the Malayalam textbook) simple story, a poem, an activity to complete etc. should be included in a single unit.

There should be separate activities connected with each lesson for continuous evaluation. It should be an integrated manner.

The present reader can't satisfy this.

Details

While choosing content for different subjects, the perspectives on democracy have to be considered.

Media has great importance in our society.

Explanation

There is need to develop creative thinking and the urge for discovery among the learner.

But the reader now in use is not satisfying that.

There is nothing give in the textbook in connection with the Medias which can be helpful for learning.

Details

Participation and provision are the main thought of our children about their rights.

Explanation

If more activities are given to ensure participation and provision the reader will be meaningful.

Details

The layout of the English reader should be child friendly.

Explanation

- Layout is not satisfactory.
- Font used should be big.
- Pictures should be clear.
- The number of lines in each page should be reduced.
- There should be enough space between works.
- The teacher text is very helpful for the teacher to transact the units. But it is too lengthy,
- Teachers do not get enough time for preparation. If they could prepare well the transaction will be more lively.
- Slots for indirect grammar learning should be included.
- Number of worksheets should be increased. There should be activities to confirm the meaning of new words in each unit.
- There should be more child oriented activities related to the lessons.
(More than one story and they should be short).
- There should be activities for the children to do without teachers help.

Table 8.2**Subject: Environmental Science**

Details	Explanation
<p>1. Lessons doing justice to constructivist approach</p> <p>The lessons in class IV environment study do not do justice to constructivist approach</p>	<p>It is not necessary for the learners to make inferences as most of them are given in boxes.</p> <p>Unit 1 – Adaptations, tables, non-living factors</p> <p>Unit 2 – Tables, Venations, Racles, Plumules</p> <p>Details about art forms in Unit 3</p> <p>Details about first aid in Unit 11</p> <p>Some of the statements in EVS hinders presentation of effective learning activities taking into account the learners acquired knowledge and their learning environment.</p>
<p>2. Adequacy of content to achieve the learning outcomes.</p> <p>The content of the text book facilitates role learning thereby leading the learners to one definite answer.</p>	<p>The class room should promote learning activities like question answer model.</p> <p>Inquiry questions out of inquisitiveness, inference of ideas etc. do not happen in the class room.</p> <p>As the findings of the activities in lessons like ‘ElakkumunduParayaan’ (Unit 2) are given directly in the text boom, it is difficult to understand whether the learners have achieved the desired learning outcomes.</p>
<p>3. Adequacy of content for process oriented learning</p> <p>The contents of the text book are adequate for the process oriented learning. But unit 8 need some changes in the activities</p>	<p>There are many avenues in the lessons for a natural development of creative skills.</p> <p>The activities of Unit 8 have to be revised. The activity should be changed in such a way that it begins in the classroom, and through Grama, District\ Panchayathsrach the state level.</p>
<p>4. Variety of learning activities</p> <p>Different types of leaning activities are seen in the text book.</p>	<p>Different types of learning activities are seen in the text book.</p> <p>Some activities or inferences that impedes construction or knowledge is seen in the text book.</p> <p>The activity ‘Evaluation’ becomes an exercise in finding out the answers for the questions.</p> <p>ICT possibilities should also be entered in</p>

	the TB.
<p>4. Use of interactive language</p> <p>The language used in the text book is suitable to the learners but certain technical terms in unit 2 like Beejaseersham, beejamoolametc. are quite difficult to understand</p>	<p>Even though the language used is suitable for the learners, they find it difficult to understand the meaning of certain expressions.</p> <p>Learners find the following expressions in Unit 2 quite difficult to understand. The expressions are Beejaseersham (Radicle), Beejamoolam (Plummules), Jalikavaravinyasam (Reticulate venation) and Samantharavaravinyasam (Parallel venation)</p>
<p>6. Suitability of pictures, graphs and maps</p> <p>Pictures are suitable in most of the units except unit 2, unit 9 Most of the pictures have to be rearranged</p>	<p>It has to be examined whether the pictures given in EVS are suitable.</p> <p>Pictures in Unit 2</p> <p>A new picture of India should be added in Unit 9 (page 98)</p> <p>Pictures in Unit 8 have to be arranged. It would be better if they are arranged in the following way – Class – Panchayath – District – State.</p>
<p>7. Lessons which require more explanation</p> <p>Unit 3,4 and 8 need more explanation</p>	<p>Unit 3 – Swathanthriathilekku</p> <p>Unit 4 – PakshikaludeKauthukaLokam</p> <p>Unit 8 – VarakkooVarakkam</p>
<p>8. Lessons which need to be simplified</p> <p>Units 2 and 11 need to be simplified</p>	<p>Unit 2 – ElakkmundeParayyam</p> <p>Unit 11 – KoottukarkoruKaruthal</p>
<p>9. Possibilities for Continuous Evaluation</p> <p>Possibilities for Continuous Evaluation should be included in teacher text.</p>	<p>Slots of Continuous Evaluation given in TB are unsuitable. In fact, the slots given in the lesson ‘Vilayirutham’ comes down to the level of putting tick mark.</p>
<p>10. Ensuring that there is no discrimination</p>	<p>Discrimination is not at all seen</p>
<p>11. Possibilities of democratic values</p> <p>Some higher level activities that cultivate environmental values/attitudes should be given</p>	<p>There are possibilities to develop democratic values.</p> <p>Some activities related to environment should also be given.</p>
<p>12. Child friendly layout</p>	<p>Layout is child friendly</p>
<p>13. suitability of teacher text of class room transaction</p> <p>Teacher text, facilitates and helps in classroom transaction up to some extent</p>	<p>Activities that make our teacher think deep should be given in teacher texts</p>
<p>14. Others</p>	

Table 8.3**Subject: Mathematics**

Details	Explanation
<p>1. Lessons doing justice to constructivist approach</p> <p>The lessons do not do justice to constructivist approach completely</p>	<p>Some of the activities lead to answers directly, without facilitating construction of answers by the learners</p> <p>This is quite evident when we examine some of the questions on page 35 of Unit 2</p> <p>What are the details given? ‘Time of 24 hr clock is given’. Direct answers that block the thinking process of the learners are given here.</p> <p>Mathematical activities are given in all areas of the lessons. But ‘how’ is not at all explained.</p>
<p>2. Adequacy of content to attain the learning outcomes</p>	<p>The content of the textbook is more than enough to attain the learning outcomes. But it is quite difficult to complete all the activities in the class room. (overlooked content)</p> <p>Learning outcomes are quite a lot in Unit 1 and 2. Therefore, it is very difficult to ensure that all the learning outcomes are achieved.</p> <p>The following activities need to be simplified.</p>
<p>3. The aptness of the content of process oriented learning</p> <p>Contents of all the units are not suitable for process oriented learning Continuity and relation to prior knowledge should be ensured</p>	<p>Even though the content is quite a lot in Mathematics Textbook, difficulty is felt while relating construction of knowledge with prior experience/learning</p> <p>There is no continuity in Mathematical problems. When one problem is presented after the other, continuity/relation is not ensured.</p> <p>Lot of Mathematical problems are presented in Unit 10</p> <p>Differently abled learners or learners with different tastes are not taken in to account while presenting activities.</p> <p>The picture ‘To Bank’ on page 32 has to be re-examined as the timings and holidays of the bank have changed.</p> <p>A picture is given for the activity Awards/years on Page 19. But it is very difficult to identify the people from the picture.</p>
<p>4. Variety of learning activities</p> <p>Different types of learning activities are included</p>	<p>Even though different types of activities are included, too much of them deter time bound completion</p> <p>Activities like ‘Let us do them’ are there in almost all the Units. Sufficient time is not available to present them in class rooms.</p> <p>It is better to avoid activities connected with pictures of 1000</p>

	<p>rupees notes considering the present situation of notes.</p> <p>Activities that help the learners to arrive at the answers in multiple/different ways are given in the textbook. This will help the learners to develop thinking.</p>
5. The language is interactive and child friendly	‘Interactive language is used in the textbook. But in certain lessons.
5. The suitability and legibility of pictures, graphs and maps The pictures included are suitable in almost all the units except the pictures in pages 65, 128 and 139	<p>The pictures included are quite apt. On page 128, the picture activity asks the learners to find out the correct length of the note. But of the picture of the note given is not of the correct length.</p> <p>Unnecessary pictures are given on the background for the Mathematics problem on page 139.</p> <p>The picture on page 65 should be made more clear.</p>
7. Lessons that need more explanation	<p>More explanation is needed for the activity</p> <p>‘change to 24 hr clock’ in Unit 2</p>
8. Lessons which need to be simplified	<p>The following lessons need to be simplified</p> <p style="text-align: center;">Unit 3 – ‘Ayirangalcherumbol’</p> <p style="text-align: center;">Unit 5 – ‘Roopangalvarakkam’</p> <p style="text-align: center;">Unit 6 – ‘NeelavumBharavum’</p>
9. Possibilities for continuous evaluation	More than enough possibilities are there in the TB to ensure continuous evaluation. It will be better if some of the activities are simplified and given.
10. Ensuring there is no discrimination	Most of the activities are connected with school and its atmosphere. Activities that ensure learning of Mathematics outside school should also be given.
11. Possibilities of Democratic Values	Possibilities of Democratic Values are very rare It is explored in TB. Activities that take into account differently abled children can also be included.
12. Child friendly layout	The layout is child friendly
13. Suitability of teacher text for transacting lessons	Because of the content overload, the teachers don’t even get time to go through the teacher text.
14. Others Mathematical problems	<p>As the activities are too many in the textbook, the teachers find it difficult to complete the portions in a time-bound manner.</p> <p>It would have been better if some Units are split into two parts.</p> <p>e.g. ‘NeelavumBharavum’, ‘SamayavumCalenderum’</p>

IX. Analysis of Questionnaire for Head Teachers (H.Ms)

Frequency of School resource group (SRG) meetings in schools

The head teachers under study were asked how often they conduct SRG meetings at school. Their responses are given in table 9.1

Table 9.1
Number of SRG's conducted per month

Frequency of S.R.G's per month	Number of H.M.s	Responses in Percentage
1	16	8.89
2	58	32.22
3	32	17.78
4	70	38.89
More than 4	4	2.22

The table9.1 above gives the frequency of SRG meetings conducted at schools per month, as reported by the head teachers. Most of the head teachers conduct SRG meetings twice (32.22%) thrice (17.78%) or even four times (38.89%). Only 8.89% of H.M.s conducts S.R.G.s once a month whereas 2.22% of H.M.s conducts S.R.G's more than 4 times as the situation demands.

The above results indicate that vast majority of the schools conduct SRG meetings more than once in a month. This shows that the schools recognize the importance of conducting SRG meetings as a review and planning body of school activities and hence their higher frequency.

Areas in which the H.M provides suggestions after going through teaching manuals

After going through the teaching manuals the HMs often give suggestions regarding the various aspects related to the classroom teaching. The HMs was asked to list the areas in which they provide suggestions in this way, and their responses are listed below in table9.2

Table 9.2

Areas in which the H.M provides suggestions after going through teaching manuals

Areas where Suggestions are provided	Number of H.M.s	Responses in Percentage
Learning activities	173	96.11
Continuous evaluation	157	87.22
Learning materials and resources	161	89.44
Responses	166	92.22
Qualitative notes	130	72.22
Work sheets	10	5.56
Considering academically backward students	22	12.22
Portfolio	10	5.56
ICT	2	1.11
Home works	1	0.56

As the table 9.2 indicates, the main areas in which the head teachers had offered suggestions after going through teaching manuals of teachers, were- the learning activities to be given to students (96.11%) followed by the areas 'responses' (92.22%) learning materials and resources (89.44%), continuous evaluation (87.22%), and writing 'Qualitative notes (72.22%)'. The other minor areas in which their suggestions were given include 'Considering academically backward students' (12.22%), on preparation and use of 'Work sheets' (5.56%), on Portfolios (5.56%), on ICT (1.11%), and on Home works 0.56%.

Therefore it can be inferred that a vast majority of H.M.s provide suggestions based on Learning activities, Continuous evaluation, Learning materials and resources and Responses.

Providing support for the development of Art-Sport-Health-Work Experience

The head teachers have to provide support to areas like Art, Sports, Health, and work experience, irrespective of whether they have got enough expertise in these areas. This often causes difficulties to the HMs. The HMs were asked whether they face any difficulty in providing support for the development of Art, sports, Health, and work experience. Their responses are consolidated below in table 9.3

Table 9.3
Difficulty in providing support for the development of
Art-Sport-Health-Work Experience

Opinion	Number of H.M.s	Responses in Percentage
Very much	52	28.89
Some	109	60.56
Not at all	15	8.33
No Response	4	2.22

From the table 9.3 it is apparent that majority of the H.M's experience (60.56%) 'Some' difficulty in providing support for the development of arts, sports, health and work experience while 28.89% reported that they feel 'very much' difficulty in providing support. However 8.33% of H.M.s reported that they experience no difficulty at all in providing support for the development of Art-Sport-Health-Work Experience.

Therefore it is interpreted that a vast majority of H.M.s need to develop a clear understanding of the different aspects related to the development of Art-Sport-Health-Work Experience and the resources that can be used etc, for providing support for the same.

Areas where difficulties are observed

HM's often face difficulties in providing support for the development of arts, sports, health and work experience, with respect to their different areas. The following are the areas where they face difficulties in giving support (Table 9.4)

Table 9.4**Areas where difficulties are observed**

Areas	Number of H.M.s	Responses in Percentage
Financial	145	80.56
Infrastructure	127	70.56
Experts / Expertise	145	80.56
Collaboration	56	31.11
Other areas		
Insufficient funds	18	10
The Rule of not to collect money from students	9	5
Lack of Art and Physical education teachers	53	29.44
Lack of adequate space	37	20.56
The huge expenditure required for exhibitions	4	2.22
Lack of services of Experts	18	10
Lack of definite and continuous curriculum	3	1.67
Lack of co-operation from parents	7	3.89
Paucity of time	21	11.67
Lack of materials	23	12.78
Lack of support from Government agencies	2	1.11
Class charge of Head masters	1	0.56
Financial backwardness of parents	1	0.56
Inadequate training	6	3.33

It is obvious from the table 9.4 that a vast majority (80.56%) of H.M.'s face difficulties in financial aspects and in locating Experts / Expertise in providing support for the development of Art-Sport-Health-Work Experience. Similarly 70.56% face difficulties related to Infrastructure while 31.11% face problems with collaboration.

The other specific areas where the H.M.'s face difficulties in providing support for the development of Art-Sport-Health-Work Experience are Lack of Art and Physical education teachers (29.44%); Lack of adequate space (20.56%); Lack of materials (12.78%); Paucity of time (11.67%); Insufficient funds (10%); Lack of services of Experts (10%); The Rule of not to collect money from students (5%); Lack of co-

operation from parents (3.89%); Inadequate training (3.33%); The huge expenditure required for exhibitions (2.22%); Lack of definite and continuous curriculum (1.67%); Lack of support from Government agencies (1.11%); Class charge of Head masters (0.56%) and Financial backwardness of parents (0.56%).

From the above results it becomes clear that the major areas in which the HMs face difficulties in providing support for the development of arts, sports, health and work experience, are financial aspects, locating experts and procuring the necessary infrastructure.

4. Conducting class observation and providing necessary suggestions

The head teachers are expected to conduct class observation and provide suggestions for the improvement of the classroom teaching, when and where necessary. But how far this is going on in schools depends on different factors like the attitude of the HM, his\ her managerial skills and expertise, frequency of administrative duties and the like. Hence it is necessary to see how often the HMs conduct class observation and provide necessary suggestions. The responses of the HMs in this regard are provided in table 9.5

Table 9.5
Conducting class observation and provide necessary suggestions

	Number of H.M.s	Responses in Percentage
Always	64	35.56
Sometimes	112	62.22
Never	2	1.11
No Response	2	1.11

From the table 9.5 it is evident that majority (62.22%) of the head teachers could conduct class observation only 'sometimes'-may be because they are busy with other official works at school and outside. Yet more than a third (35.56 %) of H.M.s reported that they 'always' conduct class observation and provide necessary suggestions. However a negligible proportion (1.11%) of H.M.s said that they do not conduct class observations at all.

These results are in agreement with common observation. In schools, a good number of headmasters try to conduct class observations and provide necessary suggestions to the teachers as and when possible.

5. Ensuring attainment of learning outcomes

All the learning activities in and out the classroom are focused towards the attainment of student learning outcomes. Hence, the teachers are to focus on this and the HMs have to ensure whether the students of each class attain prescribed learning outcomes. The HM's understudy were asked whether they try to ensure the attainment of learning outcomes and their responses are given below in table 9.6

Table 9.6
Ensuring that students attain learning outcomes

	Number of H.M.s	Responses in Percentage
Always	105	58.33
Sometimes	70	38.89
Never	2	1.11
No Response	3	1.67

The Table 9.6 suggests that a majority of the H.M.s (58.33%) always ensure that students attain learning outcomes whereas 38.89% sometimes do it. 1.11% of H.M.s do not ensure that students attain learning outcomes at all.

This result indicates that vast majorities of H.M.s are much concerned about the students' excellence and hence try to ensure that students attain learning outcomes.

Making use of services-Experts and Local resources

Making use of the resource support from sources outside the school is now a days a common practice among the schools which aim for more excellence. The HMs were asked whether they make use of the service of experts and local resources and their responses are given in table 9.7

Table 9.7
Making use of Services

	Number of H.M.s	Responses in Percentage
Services of Experts	138	76.67
Local resources	115	63.89
No response	4	2.22

The Table 9.7 suggests that a majority of the H.M.s under study use the services of Experts (76.67%) and Local resources (63.89%). This indicates that the excellence of the students as well as teachers is an important concern of majority of the head teachers and hence they are willing to seek maximum resource support for them from experts and local resources.

6 (a) Details of use of Services of Experts and Local resources

Services of Experts and Local resources are often adopted for giving additional support in areas where the teachers of the schools cannot support the students adequately. This is made use of in schools related to different areas as required. The areas in which their services are used, as reported by the headteachers are given in table 9.8

Table 9.8
Details of use of Services of Experts and Local resources

Areas	Number of H.M.s	Responses in Percentage
Day celebrations	12	6.67
Arts and sports	18	10
Parental help and support	4	2.22
Agriculture	25	13.89
Awareness programs	60	33.33
Experts classes for students	25	13.89
Experts classes for teachers	68	37.78
Interviews	22	12.22
Strengthening of PTA	4	2.22
Health activities	18	10
Workshops	7	3.89
Field trips	12	6.67

The table 9.8 illustrates that the various areas where the H.M.'s use the services of experts and local resources are, for giving experts' classes for teachers (37.78%); Awareness programs (33.33%); Agriculture (13.89%); Experts' classes for student (13.89%); Interviews (12.22%); Arts and sports(10%);Health activities (10%);Day celebrations (6.67%); Field trips (6.67%); Workshops (3.89); Parental help and support (2.22%) and Strengthening of PTA (2.22%).

The results shows that the head teachers are much aware about the excellence that can be brought to their institution availing services of Experts and Local resources and the different areas in which they can be availed.

Reasons for not availing services

Most of the schools in Kerala try to avail Services of Experts and Local resources.If at all they do not avail them, there are specific reasons for it.The responses of the head teachers regarding the reasons for not availing of services of experts and local resources are as follows:-

- Lack of services of experts
- Over-workload of Teachers
- Over-workload of H.M.
- Financial constraints

The contexts of availing the services of SMC/PTA

SMC/PTA is a statutory body for giving support to the schools in various contexts. In almost all the schools it is functioning effectively too. The different contexts in which the services of the SMC/ PTA are availed, as reported by the headmasters, are given below in table 9.10

Table 9.10
Contexts of availing the services of SMC/ PTA

Context	Number of H.M.s	Responses in Percentage
Re-opening festival	179	99.44
Day celebration	162	90
Noon-Meal	152	84.44
Club activities	138	76.67
Anniversary	152	84.44
Festivals (Mela)	154	85.56
Other Contexts		
Celebrations	8	4.44
Agriculture	11	6.11
Seminar Workshops	5	2.78
Awareness programmes	12	6.67
Health activities	8	4.44
Infrastructure	23	12.78
Field trips	60	33.33
Camps	6	3.33

The table 9.10 makes it clear that a vast majority of the H.M.s make use of the services of SMC/PTA in the following contexts - Re-opening festival (99.44%); Day celebration (90%); Festivals (Mela) (85.56%); Noon-Meal (84.44%); Anniversary (84.44%) and majority of them for Club activities (76.67%). The other contexts where the services of SMC/ PTA are availed are Field trips (33.33%); Infrastructure (12.78%); Awareness programmes (6.67%); Agriculture (6.11%); Celebrations (4.44%); Health activities (4.44%); Camps (3.33%) and Seminar Workshops (2.78%).

Therefore it can be interpreted that a vast majority of the H.M.s make use of the services of SMC/PTA in different occasions as and when required and their service is mostly availed during the re-opening festival-the pravesanotsavam-and day celebrations.

Table 9.11
Contexts of availing the services of MPTA

Context	Number of H.M.s	Responses in Percentage
Re-opening festival	169	93.89
Day celebration	147	81.67
Noon-Meal	156	86.67
Club activities	110	61.11
Anniversary	151	83.89
Festivals (Mela)	142	78.89
Other Contexts		
Celebrations	9	5
Agriculture	10	5.56
Seminar Workshops	5	2.78
Awareness programmes	11	6.11
Health activities	10	5.56
Infrastructure	15	8.33
Field trips	50	27.78
Camps	6	3.33

Mother PTA is one of the most effective agencies rendering support to the school activities. The table conveys that a vast majority of the H.M.s make use of the services of MPTA in the following contexts - Re-opening festival (93.89%); Noon-Meal (86.67%); Anniversary (83.89%); and Day celebration (81.67%); and majority of them for Festivals (Mela) (78.89%) and Club activities (61.11%). The other contexts where the services of MPTA are availed are Field trips (27.78%); Infrastructure (8.33%); Awareness programmes (6.11%); Agriculture (5.56%); Health activities (5.56%); Celebrations (5%); Camps (3.33%) and Seminar Workshops (2.78%).

It can be inferred that vast majority of the H.M.s make use of the services of MPTA for their school in various occasions especially re-opening festival, Noon-Meal programme, school anniversary and Day celebration whereas majority of them avail its services for Festivals (Mela) and Club activities.

Contexts of availing the services of Local Self Government (LSG)

Local Self Government play an important role in promoting school education. The different contexts in which the services of the LSG is made use of, as reported by the HMs are given below in Table 9.12

Table 9.12
Contexts of availing the services of LSG

Context	Number of H.M.s	Responses in Percentage
Re-opening festival	123	68.33
Day celebration	83	46.11
Noon-Meal	67	37.22
Club activities	52	28.89
Anniversary	128	71.11
Festivals (Mela)	68	37.78
Other Contexts		0
Celebrations	3	1.67
Agriculture	4	2.22
Seminar Workshops	2	1.11
Awareness programmes	4	2.22
Health activities	4	2.22
Infrastructure	17	9.44
Field trips	11	6.11
Camps	4	2.22

The table 9.12 represents that a majority of the H.M.s make use of the services of LSG for Anniversary (71.11%) and Re-opening festival (68.33%). L.S.G is also made use of, by H.M.s, for Day celebration (46.11%); Festivals (Mela) (37.78%); Noon-Meal (37.22%) and Club activities (28.89%).

The other contexts where the services of LSG are availed are for the development of infrastructure (9.44%); field trips (6.11%); awareness programmes (2.22%); agriculture (2.22%); camps (2.22%) health activities (2.22%), celebrations (1.67%); and seminar /workshops (1.11%).

Therefore it can be inferred that a majority of the H.M.s make use of the services of LSG for Anniversary and Re-opening festivals.

Contexts of availing the services of Alumni

Alumni associations are now a dayson stage rendering support to school in various ways as all the members have a favourite feeling about their school. The different contexts in which the services of the alumni association is availed, as listed by the HMs are given below in table 9.13

Table 9.13
Contexts of availing the services of Alumni

Context	Number of H.M.s	Responses in Percentage
Re-opening festival	57	31.67
Day celebration	38	21.11
Noon-Meal	14	7.78
Club activities	29	16.11
Anniversary	103	57.22
Festivals (Mela)	57	31.67
Other Contexts		
Celebrations	2	1.11
Agriculture	2	1.11
Seminar Workshops	2	1.11
Awareness programmes	3	1.67
Health activities	3	1.67
Infrastructure	11	6.11
Field trips	7	3.89
Camps	3	1.67

It is evident from the table9.13 that the services of the alumni of the school is availed by majority of the H.M.s for Anniversary (57.22%), whereas alumni support is also utilized by H.M's for Re-opening festival (31.67%); Festivals (Mela) (31.67%); Day celebration (21.11%); Club activities (16.11%) and Noon-Meal (7.78%).

The other contexts where the services of alumni are availed are, Infrastructure (6.11%); Field trips (3.89%); Awareness programmes (1.67%); Health activities (1.67%); Camps (1.67%); Agriculture (1.11%); Celebrations (1.11%); and Seminar Workshops (1.11%).

It can be inferred from the above results that although majority of the H.M.s make use of the services of alumni for Anniversary, the services of alumni is not properly utilized with regard to other aspects

Table 9.14
Contexts of availing the services of Other agencies

Context	Any Other (Pls specify)	Responses in percentage
Re-opening festival	8	4.44
Day celebration	3	1.67
Noon-Meal	3	1.67
Club activities	5	2.78
Anniversary	9	5
Festivals (Mela)	5	2.78
Other Contexts		0
Celebrations	-	
Agriculture	-	
Seminar Workshops	-	
Awareness programmes	-	
Health activities	-	
Infrastructure	1	0.56
Field trips	-	
Camps	2	1.11

[Others include School Development Committee, SSG, Clubs and Voluntary organizations]

The table makes it clear that the services of other agencies like School Development Committee, SSG, Clubs and Voluntary organizations are utilized by the H. M's for the following contexts - Anniversary (5%); Re-opening festival (4.44%); Festivals (Mela) (2.78%); Club activities (2.78%); Day celebration (1.67%) and Noon-Meal (1.67%).

The other contexts where the services of other agencies are availed are Camps (1.11%) and Infrastructure (0.56%).

Therefore it can be interpreted that the services of other agencies like School Development Committee, SSG, Clubs and Voluntary organizations are seldom availed by a vast majority of H.Ms in various contexts.

Ensuring sharing of ideas received by teachers from training

The teachers are expected to have up to date knowledge about the different subjects, strategies that can be adopted to transact the curriculum, innovations made in the education field, and programmes implemented by agencies like DIET, SSA, SCERT, SIEMAT etc. related to school education. Hence it is very important to ensure that the sharing of ideas takes place in school, following each training. It is the Headmaster who has to take initiative to ensure such sharing. The response of the HMs on ensuring sharing of ideas by teachers is given in table below:

Table 9.15

Ensuring that teachers share ideas they receive from training programmes

	Number of H.M.s	Responses in Percentage
Yes	175	97.22
No	4	2.22
No Response	1	0.56

From the table 9.15 it is evident that a vast majority of the H.M.s (97.22%) ensure that teachers share ideas they receive from training programmes whereas 2.22% do not do so.

It is imperative from the results that vast majority of H.M.s recognize the need for sharing of ideas by teachers following all training and they ensure it.

Steps taken to provide proper learning situations for students who face difficulties in learning for various reasons as well as those who are gifted and talented

While focusing on the majority of average students, the gifted students and students with learning difficulty are often ignored. This cause serious effects as the talents of the gifted students often go unreaped while the problems of slow learners remain unsolved. Hence it is the duty of the HMs to take necessary steps to ensure that proper learning situations are provided to each child according to their ability. The responses of HMs regarding the Steps taken by them to provide proper learning situations for students who face difficulties in learning and gifted children are provided in the tables below:

Table 9.16

Steps taken by HMs to provide proper learning situations for students who face difficulties in learning

Areas	Number of H.M.s	Responses in Percentage
Special class for those who do not know to read and write	144	80
Use of ICT resources	4	2.22
Use special learning materials and resources	7	3.89
Providing learning materials	8	4.44
Providing work sheets	9	5
Providing special support	3	1.67
House visits and arranging conducive facilities at home	29	16.11
Peer group study	20	11.11
Providing financial support	4	2.22

It is understood from the table 9.16 that vast majorities of the H.M.s (80%) organize special classes for those who do not know how to read and write. Similarly, to provide proper learning situations for students who face difficulties in learning, H.M.s take the following measures - House visits and helping to arranging conducive facilities at home (16.11%); Peer group study (11.11%); Providing work sheets (5%); Providing learning materials (4.44%); Use special learning materials and resources (3.89%); Use of ICT resources (2.22%); Providing financial support (2.22%) and Providing special support (1.67%).

The results indicate that different measures are adopted by the schools for providing proper learning situations to children with learning difficulties, the most common programme being arranging Special class for those who do not know to read and write.

Table 9.17
Steps taken by HMs to provide proper learning situations for
students who are gifted/ talented

	Number of H.M.s	Responses in Percentage
Quiz and other competitions	40	22.22
Encouragement	24	13.33
Library and extra reading materials	39	21.67
Additional work	10	5.56
Debates/ Seminars	1	0.56
Competitive examinations training	60	33.33
Expert classes	14	7.78
Use of Labs	8	4.44
Special (Extra) training	30	16.67
Scholarships	10	5.56
Giving more opportunities	12	6.67
Motivation classes	2	1.11
Supporting those who are backward	13	7.22
Field trips	2	1.11
Camps	4	2.22

It is understood from the table 9.17 that H.M.s take the following steps to provide proper learning situations for students who are gifted/ talented:- Competitive examinations training (33.33%); Quiz and other competitions (22.22%); Library and extra reading materials (21.67%); Special (Extra) training (16.67%); Encouragement (13.33%); Expert classes (7.78%); Supporting those who are backward (7.22%); Giving more opportunities (6.67%); Additional work (5.56%); Scholarships (5.56%); Use of Labs (4.44%); Camps (2.22%); Motivation classes (1.11%); Field trips (1.11%) and Debates/ Seminars (0.56%).

Therefore it is deduced that not much steps are taken by H.M.s for providing proper learning situations for students who are gifted/ talented. It is a sad truism that while the schools take up many programmes for the uplifting students with learning difficulties, enrichment of gifted students to enhance their talents is not given much importance

It is startling to note that 1.67% of the H.M.s do not take any steps to provide proper learning situations for students who face difficulties in learning for various reasons as well as those who are gifted and talented.

ISM Monitoring at school

Table
Conduct of ISM review in school

	Number of H.M.s	Responses in Percentage
Yes	52	28.89
No	128	71.11

As seen in table, 71.11 % of HMs reported that ISM team had not paid monitoring visit to their school while 28.89% replied in the affirmative.

Therefore it is interpreted that ISM visit was not paid in a vast majority of schools

Effectiveness of ISM monitoring visit

Table 9.18
Effectiveness of ISM monitoring visit

	Number of H.M.s	Responses in Percentage
Yes	51	98.08
No	1	1.92

Out of those HMs who reported that ISM team had paid visit to their schools, 98.8 % reported that the ISM monitoring visit was effective. This indicates that the ISM team could have given academic support to the school giving clarifications and suggestions regarding the various aspects of school activities.

b. Help and support received from ISM

As the name implies, Internal Support mission (ISM) is intended to give feedback and academic support on the school functioning. Suggestions and directions are expected to be given for making the school activities effective, if necessary. The responses of those head teachers, who reported that ISM team had paid visit to their schools, are given in table below:

Table 9.19
Help and support received from ISM

	Number of H.M.s	Responses in Percentage
Got directions for Quality improvement	10	19.61
Possibilities /Scope of TLM became clear	5	9.80
Improvement of Infrastructure	1	1.96
Improvement of Noon-meal	2	3.92
Started special training for backward students	10	19.61
Pointed out the deficiencies	9	17.64
Got directions for making classes effective	8	15.69
Empowerment of Teachers	5	9.80
School became disciplined and in order	1	1.96
Got directions for Activity- based learning	3	5.88
Enhancement of confidence of teachers	3	5.88
Enhancement of efficiency	2	3.92
Clearing of doubts	2	3.92
Got directions for conducting SRGs effectively	4	7.84

The table 9.19 offers the opinions of H.M.s regarding the help and support that they had received from ISM team in the following ways:- got directions for quality improvement (19.61%); started special training for backward students (19.61%); pointed out the deficiencies (17.64%); got directions for making classes effective (15.69%); possibilities /scope of TLM became clear (9.80%); empowerment of teachers (9.80%); got directions for conducting SRGs effectively (7.84%); got directions for activity- based learning (5.88%); enhancement of confidence of teachers (5.88%); improvement of noon-meal (3.92%); enhancement of efficiency (3.92%); improvement of infrastructure (1.96%); and school became disciplined and in order (0.56%).

Therefore it can be interpreted that the ISM team visit is effective in the sense that it helps for the improvement of school by rendering support in different areas, mostly giving directions for quality improvement, special training to backward students, and pointing out the deficiencies.

Suggestions for improvement of ISM

Suggestions for improvement of ISM are as follows:-

- ISM should be conducted in all classes
- ISM should be conducted in all the three terms
- Follow-up Supervisions should be conducted
- ISM should be linked with Clusters and Teacher trainings
- ISM should include expert teachers
- Discussions based on evaluation should be conducted after (outside) school hours

Social relationship activities carried out in your school this academic year

The school curriculum envisages the extension of student activities to the society related to the knowledge and skills they had acquired at each stage. This gives practical experience to the student as well as helps him to be the useful citizen of the society. There are different areas in which the students can be indulged as a social relationship activity. Responses of the HMs regarding the social relationship activities conducted at school are given in table below:

Table 9.20

Social relationship activities carried out in school

	Number of H.M.s	Percentage
Cleanliness drive	161	89.44
Environment protection activities	150	83.33
Water resource management	53	29.44
Energy conservation activities	43	23.89

The table 9.20 shows that a vast majority of H.M.s took initiative to carry out Cleanliness drive (89.44%) and Environment protection activities (83.33%) whereas Water resource management and Energy conservation activities were done by 29.44% and 23.89% respectively.

Therefore it can be inferred that a vast majority of H.M.s carried out Cleanliness drive and Environment protection activities in their schools whereas other areas seem more or less given lesser importance. There are also minor areas suggested by very negligible proportion of the HMs under study which include:-

- Distribution of learning materials
- Distribution of Uniform
- Sports meet for parents
- Annual day celebrations/ Other celebrations
- Vacation programmes
- Development of Infrastructure
- Activities against the use of drugs and intoxicants
- Rally against wars
- Awareness classes for parents
- Agriculture activities
- Opening day festival
- Field trips
- Home visits
- Rendering help to old age homes
- Charity works
- Awareness on Road safety
- Motivation classes
- Drama camps
- Reading by mothers

X. Analysis of FGD members (AEO)

- Majority of the AEOs reported that they conduct monitoring of the academic activities and give support wherever and whenever needed. In addition to this they motivate teachers by appreciating their excellence.
- According to them majority of the teachers do not prepare teaching manual as envisaged in the teacher text. It is found that majority of the teachers feel difficulty in writing reflective notes and support is needed for
- Many of the teachers use teaching learning materials for making the classroom teaching effective. But some of the teachers are not even using the learning materials available in the school
- It is found that the major learning material used in the classroom is the textbook itself
- In more than half of the classes the teaching learning process takes place effectively. It is significant to note that certain classes are not at all effective.

- In majority of classes learning products are displayed. But only in certain schools the display of products are periodically updated. It is found that the majority of the teachers are not making use of these products later.
- Service of the teachers in a school is permitted for the smooth conduct of programmes like Youth festival and science fairs in other schools
- AEOs reported that during monitoring, they ensure whether due consideration is given to differently abled, slow learners, gifted students,
- Constant and continuous monitoring and support in organizing programs and fairs related to art and physical education.
- AEOs reported that they give creative and valuable suggestions for the smooth conduct of PTA and SMC
- AEOs are involved in the programmes of village education committees actively
- All the AEOs reported that the internal Support Mission (ISM) visits were very much effective in enhancing the academic as well as administrative excellence.
- AEOs participate in the DRG training of the Cluster, and they monitor each cluster and make sure that the cluster is conducted as per the module
- The infrastructure facilities of the school as well as the classroom facilities are monitored and necessary suggestions are given for their improvement.
- AEOs ensure whether the funds allotted to schools are properly utilized and recorded.
- They monitor the noon meal programme and ensure that nutritious and hygienic food is given to the students without fail.
- Majority of the AEOs feel that team monitoring is more effective than individual monitoring as both administrative and academic aspects could be monitored within a single visits

XI. Analysis based on interview/ G D: Learners

Involvement in classroom activities

Majority of learners reported that they are actively involving in classroom activities; mainly through group activities and the timely involvement of majority of teachers make the group activities active and alive. But in one of the schools in a sub district, learners are not getting much opportunity to involve in group activities.

Assistance provided by teachers in the classroom

Teachers assist the learners in group activities and in doing experiments. They also help the learners in clarifying the doubts. It is also reported that many of the teachers identify the learners who encountered with difficulties and take steps to provide necessary remedial measures. (For example most probably they are explaining the content with illustrations). Majority of teachers also give clues and hints while doing self-activities by learners.

Co-curricular activities

According to the learners, they are participating in various club activities like sports club, arts club, road safety club and they involve in the activities like conservation of nature and water, fairs, cleaning and waste management etc. They also reported that they do activities like model preparation, experimentation and work experience. It is interesting to note that they also do Pisciculture and vegetable farming in their schools.

Learning Aids/ Products

Learners reported that different types of learning aids like periscope, barometer, stethoscope and models are prepared by the teachers with the cooperation of learners and make use of them in the teaching learning process. Maps of different countries especially India is prepared and marked both by learners and teachers. These products are subjected to peer evaluation, self-evaluation and teacher evaluation. At the same time, in one district learners reported that they are not getting enough chances for the preparation of learning aids.

Text Books

Majority of the learners opined that they warmly welcome the newly developed textbooks and are satisfied with its color printing, pictures and maps. They agree that the textbooks are up to the level of learners. But they complained that they are not getting the textbooks within the prescribed time schedule.

Assistance provided from parents

A great majority of the learners agree that they get help from their parents for studying and ask them to study. Some of the students reported that their parents daily examine the note books and ask questions related to it. Some of them also help in doing homework and clear their doubts. For this they get advice from PTA meetings. A few learners reported that they are not getting any help from their parents.

XII. Analysis based on FGD - PTA

- PTA Members reported that general body meeting will be conducted at the beginning of the academic year and executive committee meetings are conducted as and when required. Most of the executive members attend the executive meetings along with the teachers.
- MPTA and CPTA meetings are conducted for ensuring the security, quality of noon meal and to provide suggestions for academic improvement.
- MPTA and CPTA meetings are to be convened as per the convenience of parents. In addition to this awareness programmes are to be conducted.
- It is reported that the facilities such as classrooms/smart classroom, toilets, and facilities for the differently abled, lab and library are available in most of the schools. But not sure about the utilization of smart classroom, lab and library.
- The major interventions made by them are donating books to the library
- Regarding the revised textbook, they reported that the text books are learner friendly, attractive and suitable for intellectual level to a certain extent. The activities included in the text book are learner friendly and practicable.
- They are unaware of the learning outcomes.
- Since there are no teachers to handle the subjects like art education, physical education and work experience, mostly students are exposed to playgrounds during these periods.
- No support is rendered by PTA for the CWSN students.
- PTA renders services to solve problems, if any.
- PTA is one of the essential components of school management
- PTA plays an important role in the availability and utilization of funds.

Chapter 3

FINDINGS AND SUGGESTIONS

Findings of the study

The aim of the present study is to assess the implemented curriculum in IV standard of Kerala state. This part presents the major findings derived from the study based on the data collected using various methods. Data were collected from the teachers, Headmasters, students, PTA/LSG members and AEOs and each analyzed separately. Classroom observations were also conducted by using the schedule. An in-depth analysis of textbook, teacher text and errors committed by learners in the answer scripts were also made.

Data collected were analyzed and findings derived are presented under appropriate heads.

I. Findings based on Learning Outcomes

- 1) It is found that the characteristic features of the learning outcomes envisaged in the curriculum 2013 are clear to majority of teachers (79.41%). But it is noted that the remaining teachers (20.65%) need more clarity regarding the features of learning outcome like short term and long term outcomes, outcomes attained through process oriented learning, learning outcomes that develop values, attitudes, and social commitment and that can be developed through collaborative learning.
- 2) Even though majority of the teachers (83.53%) are of the opinion that learners couldn't achieve the expected learning outcomes to be aimed through the transaction of the content, only a considerable percentage (16.47%) are of the opinion that the learners could achieve the same.
- 3) It is found that majority (72.35%) of teachers couldn't differentiate between short term and long term learning outcomes. Only 27.65% of teachers were able to differentiate it.
- 4) Majority of the teachers (88.82%) opined that the learning outcomes are arranged in such a way to ensure the continuity and development of it from the lower to higher classes, but a considerable percentage (11.18%) has a difference in opinion.

- 5) It is observed that a considerable percentage of teachers (86.47%) agree that the outcomes given in different units are observable and measurable but 13.53% of teachers disagree to it.
- 6) It is inferred that 27.06% of the teachers were able to understand the ideas/skills acquired from each unit of the text book through the learning outcomes to some extent level only. But majority (72.94%) of the teachers were able to understand the ideas/skills to a great extent.
- 7) It is pointed out by 51.18% of teachers that the distribution of learning outcomes in different units of Class IV are according to the level of the learners to some extent level only. But 48.82% agreed to large extent level that the distribution of learning outcomes is given according to the level of the learners.
- 8) A considerable percentage (57.65%) of teachers has reported that learning outcomes are helpful for self-evaluation to some extent level only whereas 42.35% of teachers reported it to a great extent level.
- 9) Majority of the teachers (64.71%) find difficulty in the time bound completion of learning outcomes but 35.29% of teachers disagreed to this.
- 10) It is found that even though majority of teachers (88.82%) opined that the outcome focused methodology is helpful in ensuring the attainment of level of learning envisaged by RTE, 11.18% of teachers did not agree to it.

II. Findings based on Learning Resources

1. It is observed that majority of teachers (82-94%) agree with most of the characteristics of the textbook like content appropriateness, conceptual clarity, adequacy of activities, opportunity to foster the creativity, language appropriateness, pictures, lay-out, etc. But, 43.53% of teachers opined that activities considering different levels of learners are not present in the text book, language is not appropriate to the level of the learner (17.06%), content is not appropriate to the level of the learners (15.88%), adequate learning activities are not given in the textbook to achieve the learning outcomes (15.29%), follow up activities mentioned are inadequate (11.76%), concepts are not arranged spirally (12.94%) and slots of ICT are not given for effective learning (11.18%).
2. It is noted that 63.53% teachers reported that the division of periods given in teacher text is not suitable for its transaction. Majority of teachers (81- 93%) supports the teacher text of standard IV in many aspects like complementary nature of textbook

and teacher text, suitability of hints, adequacy if additional information provided, specific instructions in TE and CE, suitable tools for evaluation, clarity given for right-based education envisaged by RTE Act, and clarity in professional ethics to be practiced by teachers.

A significant percentage of teachers (12.35%) opined that Teacher text is not helpful in preparing TM and 13.53% opined that reference books and different web sites given in the teacher text are not helpful for the transaction of lessons.

3. The facilities pointed out by majority of teachers (50-90%) are reading corners, ICT facilities, display boards, science club, science lab, Mathematics club, Mathematics corner, Science corner, Science lab, language lab and reading corner. The facilities such as Social Science corner, Social Science club, Social Science lab and Mathematics lab are reported by below 50% of the teachers.
4. It is inferred that 40-49% of teachers reported that the content in the text book of Std IV has given emphasis to facilities like library, ICT, display board, periodicals and subject corners some extent level only.
5. About it is noted that 24-25% of the teachers reported that instructions provided in the TT to utilize ICT, library and lab are to some extent only. 38-47% teachers reported that necessary instructions are provided in TT to utilize facilities such as Display board, Periodicals Club and corner to a great extent level.
6. It is found that 33-48% of teachers use the facilities such as lab, library, ICT, display board, magazine, club and corner to some extent level only, for providing learning activities to students.
7. It is noted that majority of teachers use a variety of materials like pictures (92.35%), materials prepared by themselves (91.76%), worksheets (84.71%) and tables (87.65%) other than TT and TB for teaching and learning.
Additional materials used by teachers to ensure learning outcomes are magazines, field trips, paper cutting, gifts for encouragements and daily news quiz.
8. Majority of the teachers (64.71%) are of the opinion that resource teachers mainly provide help in the adaptation of CWSN. But 52-61% of teachers opined that textbooks and teacher texts are helpful in the adaptation and 60.59% agreed with the adequacy of infrastructure in this regard.

9. It is found that suitable situations for transaction are given in the textbook with regard to Arts (68.10%), Health (42.94%), and Work experience (63.19%) to a great extent level. It can be observed that instructions are there to frame necessary resources in the TT to a great extent level in Arts (65.03%), health (44.17%) and work experience (58.28%). The school is equipped to carry out activities to some extent level related to Arts (71.78%), Health (60.74%) and Work experience (54.60%). Teachers are able to make available local resources to some extent level in these areas related to Arts (55.83%), Health (52.76%) and Work experience (50.31%). They are able to make use of teacher text to some extent level in the areas related to Arts (46.01%), Health (49.69%) and Work experience (46.63%). Teachers are able to make use of activity books to some extent level in the areas related to Arts (49.69%), Health (46.01%) and Work experience (45.40%).
10. Even though majority of the teachers evaluate the products (91.76%), encourage the outstanding products (93.53%) and utilize the chance for the reuse of the products (85.29%), but 5.88% of teachers are not utilizing the chance for the re-use of the products and 2.35% of teachers do not evaluate the products.
11. It is found that majority of teachers exhibit the learner's products in the class (94.71%), in CPTA (64.12%), and in fares (61.76%).

III. Findings based on Learning Process

1. It can be inferred that 59.41% of teachers face difficulty while planning the learning activities.
2. Although the teachers experienced difficulty in various thrust areas, 'Learning of the different levels of learners' (59.41%), and 'Integrating arts, sports, health and work experience' (44.12%) are two major thrust areas that posed difficulty to majority of teachers while planning the learning activities.
3. It can be inferred that majority of teachers (83.53%) were not able to ensure the development of process skills in learners through learning process.
4. It can be noted that a significant percentage (12.35%) of teachers couldn't plan the learning process in such a way as to get clarity of the content through multisensory experience, but majority of teachers could.

5. A significant percentage (12.35%) of teachers opined that the curriculum is not appropriate in enabling learners to apply the knowledge acquired through learning process in their daily life.
6. Though majority of teachers (88.24%) were able to use appropriate learning strategies to the content whereas 11.76% of teachers were not able to make use of the learning strategies appropriate to the content. For these teachers, *learning strategies like Investigative learning and Meta cognition were found to be the most difficult strategies. They felt less difficulty in adopting Collaborative learning.*
7. 'Lack of time' (73.53%) and 'Lack of facilities/materials' (40%) were the major reasons reported by the teachers in making use of appropriate learning strategy.
8. It is noticed that 57.06% of the teachers could not plan and implement the learning activities to overcome the constraints of the slow learners. Lack of specially prepared learning materials, lack of time to plan and implement the activities for different levels of learners and Lack of time were the major reasons of difficulty that were mentioned by 27-37% of teachers .
9. It is significant to note that majority of the teachers (70.59%) were not able to ensure the attainment of learning outcomes in different level of learners.
10. A significant percentage (24.12%) of teachers couldn't implement learning activities to enrich the abilities of gifted learners though majority of the teachers (75.88%) were able to do so.
11. Majority of teachers (71.76%) ensured the maximum participation of all learners sometimes only and 28.24% of teachers always ensured full learner participation.
12. It is noted that 45.88% of the teachers were able to transact the content in a learner friendly manner only sometimes while 54.12% teachers were able to transact the content in a learner friendly manner.

IV. Findings based on Evaluation

1. It is seen that a significant percentage, 17.06% of teachers did not get a clear idea about continuous evaluation. But majority of teachers (82.94%) have clarity in it. It is found that teachers need clarity in assessment of learning process (11.76%) and in Portfolio assessment (4.12%).
2. It is found that about 40% of teachers are not able to ensure learning and to provide support to learners though CE whereas 60.59% were able to ensure it.

3. About 31.76% of teachers are not able to carry out learning process and evaluation simultaneously even though majority of teachers (68.24%) are able to undertake the task successfully.
4. A considerable percentage of teachers (20.59%) reported that the indicators related to different areas of evaluation are not specific. Very few teachers reported that they need clarity in Assessment of Learning Process (14.12%).
5. From this it is found that 57.06 % of the teachers faced lack of time as the problem faced in evaluation while 37.65% reported that the difficulty is because of the overcrowded classroom.
6. It is inferred that majority of the teachers provide opportunities for self-assessment (87.65%) and peer assessment (82.35%). At the same time, it is found that a significant percentage does not provide opportunity for self-assessment (12.35%) and peer assessment (17.65%).
7. It is found that 6.47% of teachers are not concerned with preparation of indicators for evaluation by learners. But majority of teachers (58.24%) used indicators developed in classroom discussions.
8. It is significant to note that even though majority of teachers (87.65%) are providing opportunities to learn to present their products related to self-evaluation and peer evaluation while a significant number of teachers (12.35%) are not providing at all.
9. It is found that majority of the teachers (80%) reported that they made suitable changes in the classroom process considering the learners evaluation whereas a significant percentage (20%) did not make any changes in the classroom process.
10. It is found that class test and quiz are found to be the most popular tools used by teachers (71.18%) for unit evaluation. Along with open book test (24.12%), teachers use variety of evaluation tools/ techniques like seminars, work sheets, creative writing and collections.
11. It is inferred that teachers (72-92%) are considering different records such as Notebook. Worksheet. Project/seminar report, answer scripts, short notes and creative writings assignment for continuous evaluation.
12. Even though majority of teachers are giving feedback for learners (92.35%) based on CE and 82.94% of teachers are giving feedback for parent. It is to be noted that 7.65 % of teachers are not giving feedback for learners.
13. It is significant to note that even though majority of teachers (87.65%) are providing remedial instruction based on feedback from Continuous Evaluation, significant

percentage of teachers (12.35%) are not providing remedial instruction based on the feedback obtained from continuous evaluation For learners and parents.

14. Majority of teachers reported that they give scaffolding (61.18%) and follow up activities (64.71%) as a part of remedial teaching. It is found that teachers are giving importance to strategies like changing process (45.29%) and peer tutoring (39.41%) as part of remedial teaching.

Other methods reported by the teachers are seeking help from talented teachers and seeking ICT possibilities.

15. Even though majority of teachers (65.88%) accurately recorded the details of continuous evaluation, it is significant to note that 34.12% of teachers did not accurately record.

It is found that half percentage of teachers are framing different strategies for CWSN learners whereas another half percentage of teachers are not framing different strategies for CWSN learners.

The special strategies adopted by teachers are providing activities using pictures (completing, labeling, coloring, etc.), activities which caters their interest, multidimensional activities, evaluating special abilities, easy and simple activities, simplified evaluation indicators, activities using multimedia, oral test and framing special modules.

16. Majority of teachers (84.12%) reported that they have a clear awareness about Term Evaluation to a great extent level. At the same time 75.29% of teachers reported that tools for TE are suitable for evaluating the learning outcomes to a great extent level while 68.24% opined that Term Evaluation includes variety of questions which give emphasis to thinking skills to a great extent level. Regarding the statements related to term evaluation it is noteworthy that more that 30% of teachers opined that they include variety of questions which give emphasis to thinking skills are adequate only to some extent level and 24.71% of teachers opined that the tools adopted for Term Evaluation are adequate for evaluating learning outcomes to some extent level.
17. Even though majority of teachers (82.35%) are not facing any difficulties related to TE, a significant number of teachers (17.65%) have difficulties related to TE. It is found that a few teachers reported that they experienced difficulties related to term evaluation. The difficulties reported are inadequate evaluation strategies (18.99%) and difficulty in grading (23.42%).

18. It is noted that 52.35% of teachers are not properly conducting evaluation related to art, sports and work experience.
19. It is important to note that a significant number (60-90%) of teachers are carrying out evaluation and recording of socio-emotional areas like intrapersonal skill, decision making, self-awareness, empathy and communication skill whereas, it is noted that evaluation and recording in areas like , coping with stress and critical thinking are done only by nearly 40% of the teachers.

V. Findings based on Support system

1. It can be inferred that great majority of teachers received support from HMs and BRC (97%). Majority of the teachers (70-90%) received support from, SMC / PTA, MPTA, SSA, SSG, DIET, Clubs, SCERT and ISM. Support from LSG was reported by 49.08% of teachers. Only 20% of teachers received support from Alumni, SPC and NGOs.
2. It can be noted that only less support (50-60%) is attained in the areas to enhance the emotional stability of children, awareness against abuses, awareness against crimes, water literacy and right based education whereas it is noted that majority of the teachers (70-95%)opined that they got support in the areas of academic ,Grants, Child friendly environment, Environmental awareness, Waste management and Health and Physical education and to ensure child's right , support for assessment (CE & TE) , nurture life skills in children, and Values/Attitudes.
3. It is clear that 73.62% of the teachers agreed that self-improvement using feedback was done on the basis of monitoring.
4. Majority of the teachers (98.16%) agreed that self-academic improvement was done on the basis of the feedback.
5. Eventhough most of the teachers (95.09%) agreed that follow up activity are carried out based on monitoring, 4.91% of teachers are not. It is serious to consider since monitoring and feedback are expected to be done by all teachers.
6. From the analysis it is found that not much teachers got clarity in areas of Art and Work Experience Education (59.51%), Inclusive Education (53.37%) and Guidance and Counseling (39.26%).
7. It is found that great majority of the teachers(74-94%) got clarity in the areas like Teaching learning strategies , Learning outcomes , CE/TE and Content , Products , Learning resources and ICT .

8. It is inferred that 46.63% of teachers opined that the training was helpful for them in transacting the lessons fruitfully to some extent level only whereas for 47.87% of teachers, the training was helpful to great extent level.

VI. Findings based on the Adequacy of Resources in the Textbook: Language (Malayalam & English)

1. A great majority of teachers (92.64%) reported that the activity of preparing notes on reading given in the language text book is adequate for developing reading habit among students whereas it is noted that (60-65%) for recitation, workshop for creative writing and identification of climax of compositions.
2. Majority of teachers (76-92%) reported that the provisions /resources for story writing, narration, appreciation, recitation, versification, conversation, description, title writing and story given in the text book are adequate for fostering literary aptitude among learners.
3. A great majority of teachers (80%-92%) reported that writing footnotes, writing competition and composition description given in the text book are suitable for providing opportunity for creative writing, while 50% of the teachers reported that activities like poetry completion, picture story and reading picture suitable for creative writing are to be included in the text book.
4. As reported by the teachers, the major activities used in the text book for acquiring language skills are role play (88.34%), recitation (87.12%), Picture drawing/painting (87.12%), Coloring (86.50%), Miming (83.44%) story telling (71.17%) and choreography (60.74%)
9. Majority of the teachers (86.50%) reported that the teacher text is adequate for effective transaction of the concepts given in the text book whereas a negligible proportion of teachers responded negatively.
10. Majority of the teachers use various techniques like club activities (79.14%), newspapers (67.48%) and language lab (65.64%) for acquiring language skills. Only 35% of them make use of the school assembly for this purpose.
11. It is noted that 49.08% of teachers reported that they found difficulty while transacting discourses in the classrooms whereas 59.92% of teachers reported that they did not find any difficulty.

VII. Findings based on the Adequacy of Resources in the Textbook: Mathematics

Majority of teachers (65-90%) reported that teacher text is helpful to a great extent in planning classroom activities in areas like -enhancing conceptual knowledge of the content, activities given in the textbook can be done by the students themselves, activities which are included by confirming the adequate pre-requisites required for conceptualization are available with the students and that they are able to carry out the activities given in the Side/ Boxes in the classroom, able to make the students apply the ideas generated by them in new situations, students got opportunities for hypothesising and generalization in the class and the textbook helps to organize classroom activities so that children can effectively generate mathematical ideas themselves. It is found that only 55.21% of teachers are able to transact the contents of Mathematics effectively to the students, 57.67% reported that the children were able to gather information and analyse them, 49.08% opined that they were able to carry out activities related to ICT given in the textbook, 40.49% reported that children were able to think rationally and find the cause- effect relation, 36.20% of them reported that the child was able to recognize which mathematical idea/ task to use for problem solving. It is noted that nearly 31% reported that a child could analyze and solve a problem himself and learning activities given could be completed in a time-bound manner. It is significant to note that 60.74% reported that a child can analyze and solve a problem himself only upto some extent level. It is noted that a considerable percentage (13.50%) of the teachers were not able to carry out activities related to ICT given in the textbook. It is noted that majority of the teachers (62.58%) reported that learning activities given can be completed in a time-bound manner only to some extent.

VIII. Findings based on the Adequacy of Resources in the Textbook: Science

1. Majority of the teachers (72-76%) reported that the text book is suitable with respect to the contents, materials and activities to a great extent level whereas it is noted that 18-20% of teachers have reported to some extent level for the same.
2. Majority of the teachers (50-60%) did not find difficulty while transacting the lessons in science. Yet a considerable proportion of teachers find difficulties in the making of improvised materials (25.77%) and designing experiments (22.09%).
3. Majority of the teachers (60-75%) agree to a great extent level that the Teacher Text of Class IV Science gives adequate knowledge about the learning aims of Science, gives clear indication regarding how to plan each learning activity so as to attain the

targeted learning outcomes, provides sufficient extra knowledge that helps in conceptualization/ideation and provides different learning techniques/strategies and that are useful in learning science whereas (12-28%) agree to some extent only.

IX. Findings Based on Class Observation: Malayalam

It is observed that only a few teachers provide a variety of learning activities to get adequate pre-requisites to all learners.

It is observed that majority of teachers have prepared TM using essential resources and activities, but it is noted that very few teachers use additional resources and creative activities other than Teacher Text.

Majority of teachers provided a variety of learning activities to get adequate pre-requisites to all learners. At the same time very few teachers provided activities necessary for basic pre-requisite knowledge to very few learners.

Majority of the teachers made the class interesting using descriptions, stories and learning materials. Very few teachers motivated the learners by only describing the content and asking questions.

learning activities suggested in TB and TT used by half of the teachers were highly effective for developing reflective thinking among learners, where as in half of the classes observed the learning activities provided were effective. Spontaneous progress in learning and timely recording in the TM were there in most of the classes observed.

Majority of teachers were using learning aids recommended in the curriculum as well as available in the school while a few teachers use innovative learning aids prepared by local resources for attaining conceptual clarity. It is pathetic to observe that two teachers were not even using already available learning aids in the school.

Regarding the knowledge construction through learning activities it is found that majority of teachers support the learners to attain higher level of knowledge construction through variety of learning strategies including reflective questioning and debating.

It is seen that half of the teachers provided slots for intellectual and emotional development, development of attitudes, values and social responsibilities stipulated in the content. Majority of the teachers were able to help all the learners to identify their roles and ensured their involvement in group and individual activities. Majority of teachers provided learning activities based on available infrastructure/ICT facilities and created

essential situation necessary for independent social and emotional environment. It is serious to consider that very few teachers are not even using available infrastructure/ICT facilities. It is observed that half of the teachers intervened with all types of learners as mentors as well as made essential interventions to attain learning outcomes.

Even though majority of the teachers provided opportunity for reflective thinking, only very few teachers provided opportunity for remedial measures. About half of the classes observed, the teachers consolidated group activities during and at the end of the class. But in few classes observed, teachers consolidated only at the end of the class. It is observed that evaluation as envisaged by the curriculum was followed by majority of teachers.

Among the classes observed, it is found that the performance of teachers is almost average with regard to the components like Teaching Manual preparation, learning environment, and classroom intervention and evaluation process.

The above mentioned findings high light the need for empowering teachers with necessary competencies and skills for making the learning process learner friendly.

X. Findings based on Classroom Observation: English

From the analysis of English classes, it can be concluded that the performance of majority of the teachers is up to the mark with respect to teaching manual, preparation, interest and motivation, learning activities, learning environment, classroom intervention, reflective thought, consolidation, evaluation process and overview of the class, in most of the classes, but there are cases in which improvement is needed with respect to teaching manual, learning environment, classroom intervention, reflective thought, consolidation and overview.

XI. Findings based on Classroom Observation: Mathematics

From the analysis of Mathematics classes, it can be concluded that the performance of majority of the teachers is up to the mark with respect to teaching manual, preparation, interest and motivation, learning activities, learning environment, classroom intervention, reflective thought, consolidation, evaluation process and overview of the class, in most of the classes, but it is noted that in some classes, the areas- interest and motivation, attitude and values , learning environment and reflective thinking need further improvement.

XII. Findings based on Classroom Observation: Science

1. On analysis of the Environmental science classroom observation , it was found that though in most cases teaching manual, preparation, interest and motivation, learning activities, learning environment, classroom intervention, , consolidation, evaluation process and overview of the class are very good or good , a considerable number of classes need further improvement in these areas. The area reflective thinking need improvement in most of the classes

XIII. Findings based on Answer sheet analysis of Malayalam: Error Analysis

1. A considerable number of students haven't acquired the skill of writing conversation
2. Majority of students couldn't complete the activity maintaining the processing skills related to poster creation. The children need to acquire the skills for creativity, identifying words/usages appropriate to the context
3. The students haven't got complete understanding about the form of discourse of description based on his /her previous knowledge which he got as a part of classroom activities. There is no accuracy in the clarity of ideas, appropriate language, sentence structure, words, symbols etc.
4. Only a very small percentage of students possess the ability to prepare note of reminiscence maintaining its stages/phases.
5. Students need to acquire skills for using letters, words/usages, sentence structure, and clarity of ideas etc. suitable to the context
6. Children face difficulty in preparing note of appreciation based on usage, description, euphony (beauty of words)
7. Children face difficulty in completing the form of discourse, completing the poem, creatively and with clarity of ideas using words, usages, description etc.

XIV. Findings based on answer script analysis of English: Error Analysis

1. Majority (90%) of the students answered well for the activity related adding lines. One or two could not identify the rhyming words and set pattern
2. Many of the children got idea from the given context. But they are unable to express it as a thought in a simple language.

3. In reading and comprehension they do not have any difficulty. But some of them are unable to construct dialogues of their own. There was so many spelling mistake
4. Most of them know the features of a notice. But they are unable to convey the message.
5. Children could get ideas from the pictures given, but could not get a holistic view. They could write only individual sentences without any connection. Only one of them wrote it as a description

XV. Findings based on answer sheet analysis of Mathematics: Error Analysis

1. About 42% children found out the number of notes according to the place value of numbers
2. Majority (83%) of students could arrange the numbers in the table in the ascending and descending order. 83% of students can identify a particular number from that majority
3. Children could identify the minutes and seconds of time. But 50% of children are not able to solve the practical issues related to this
4. Children can identify a.m. and p.m. But makes mistakes when moves to 12-hour clock
5. Children face difficulty to analyse the problem and formulate inferences.
Environmental science
6. Majority (91.67%) of the students under study could classify the listed organisms on the basis of their habitats. But, only 16.67% could list the adaptations of the fish as suited to its aquatic life.
7. Majority of the students under study (58.33%) complete the concept map properly. But only 4.67 percent could relate the taproot system and reticulate venation to dicots, and fibrous root system and parallel venations to monocots
8. Only 41.7% of students under study could identify the leaders of Indian Freedom struggle, from their photographs. Even though majority of the students (58.33%) face difficulty in identifying leaders other than Mahatma Gandhi , from the pictures, a significant proportion of the students (33.3%) could not even attempt the question. None of the children has got a complete and in depth idea about the important events in the history of freedom struggle. Only 16.67% of the sample under study has got

the skill to tabulate the available data related to the important events in freedom struggle.

9. Majority (83.33 %) of students face difficulty in identifying the physical features of birds adaptive to their ways of travel (flight) and procuring food.
10. Only 33.33% of the student's understudy could find out the interference of human beings in destroying natural habitats of his/her locality. Only 16.67 % of the students could plan activities against environmental devastations

XVI. Findings based on the Answer sheet analysis of Environment Science: Error Analysis

1. Couldn't identify the features of fish adaptive to aquatic life
2. The learners have not achieved the expected perceptions/skills
3. Majority of the students could not differentiate between taproot system and fibrous root system.
4. It is seen that 83.33 % of students face difficulty in identifying the physical features of birds adaptive to their ways of travel (flight) and procuring food.
5. Lack of understanding the skills of observation, tabulation, formulation of interferences etc.
6. Only 16.67 % of the students could plan activities against environmental devastations

XVII. Findings based on Text book analysis Malayalam

1. The lessons do justice to constructivist approach. Different methods are adapted to present ideas on the lessons. Therefore, transaction of an idea to the learners is quite time consuming
2. The contents of unit2, 3 and 5 are not suited to attain the learning outcomes
3. The content of all the units except unit 1 are suitable for process oriented learning In unit 1 the vastness of portions/contents defers time bound completion of lessons
4. A variety of activities are included, difficulties may be encountered regarding time bound completions of them
5. Language used is interactive and child friendly
6. Pictures, graphs, maps used are Suitable
7. It may be better to give more models related to language elements.

8. Simplification of contents is not needed, but more clarification in certain areas may be given.
9. Possibilities of continuous evaluation exist in all lessons.
10. The activities that enhances of discrimination are very rare
11. Activities given in the lesson promote democratic values and attitudes
12. The present layout is child friendly
13. The teacher text facilitates transaction of lessons. At the same time, more explanation and activities related to language elements may be given.
14. ICT possibilities of all lessons may be given in teacher text.
15. Poems which can recite imbibing its music rhythm and emotions may be included in TB

XVIII. Findings based on the Textbook Analysis - English

1. The vastness of the content hinders proper transaction. The language used is not up to the level of standard 4 learners.
2. The activities given are not enough to develop skills, attitudes and values.
3. Units 1, 2 and 4 are environment based. The reader considers areas of development but the activities are not enough to ensure it
4. Ample opportunities for process oriented learning are given in the text book.
5. The text book has failed to provide variety of activities.
6. With respect to the use of language, all the units follow learner friendly approach, but the vocabulary used in the text is quite unfamiliar.
7. Most of the pictures are not attractive and lack clarity.
8. Some of the lessons in the text require more clarity and explanation.
9. Slots ensuring evaluation are not given in each unit.
10. There is no possibility of any kind of discrimination throughout the textbook.
11. The lessons help to inculcate democratic values among learners.
12. The layout of the text book is neither child friendly nor attractive.
13. The teacher text facilitates proper planning and creativity.
14. ICT integration is a challenging task for practicing teachers. Language activities are not given much importance.

XIX. Findings based on the Textbook Analysis – Mathematics

1. There is no continuity in Mathematical problems. When one problem is presented after the other, continuity/relation is not ensured.
2. Lot of Mathematical problems are presented in Unit 10
3. Differently abled learners or learners with different tastes are not taken in to account while presenting activities.
4. Some of the activities lead to answers directly, without facilitating construction of answers by the learners
5. This is quite evident when we examine some of the questions on page 35 of Unit 2
6. Learning outcomes are quite a lot in Unit 1 and 2. Therefore, it is very difficult to ensure that all the learning outcomes are achieved.
7. Most of the activities are connected with school and its atmosphere. Activities that ensure learning of Mathematics outside school should also be given.
8. Possibilities of Democratic Values are very rare It is explored in TB. Activities that take into account differently abled children can also be included.
9. The layout is learner friendly.

XX. Findings based on the Textbook Analysis: Environmental science

1. The lessons in class IV environment study do not do justice to constructivist approach
2. The content of the text book facilitates rote learning thereby leading the learners to one definite answer.
3. The contents of the text book are adequate for the process oriented learning. But Unit 8 need some changes in the activities
4. Different types of leaning activities are seen in the text book. Thus variety is ensured
5. The language used in the text book is suitable to the learners but certain technical terms in unit 2 like Beejaseersham, beejamoolametc are quite difficult to understand
6. Pictures are suitable in most of the units except unit 2, unit 9 Most of the pictures have to be re rearranged
7. Unit 3,4 and 8 need more explanation
8. Units 2 and 11 need to be simplified
9. Possibilities for Continuous Evaluation should be included in teacher text
10. Discrimination is not at all seen in any of the units

11. There are possibilities to develop democratic values. Some activities related to environment should also be given.
12. Layout is child friendly
13. Teacher text, facilitates and helps in classroom transaction up to some extent
14. Mathematics
15. The lessons do not do justice to constructivist approach completely
16. The content of the textbook is more than enough to attain the learning outcomes. But it is quite difficult to complete all the activities in the class room.
17. Different types of learning activities are included
18. The language is interactive and child friendly
19. The pictures included are suitable in almost all the units except the pictures in pages 65, 128 and 139
20. More explanation is needed only for the activity 'change to 24 hr clock' in Unit 2.
21. The lessons in Unit 3-'Ayirangalcherumbol', Unit 5-'Roopangalvarakkam', Unit 6 - 'NeelavumBharavum' need to be simplified.
22. More than enough possibilities are there in the TB to ensure continuous evaluation.
23. Possibilities of Democratic Values are very rare
24. The layout is child friendly
25. The content is overloaded. so the content transaction is difficult
26. It would have been better if some Units are split into two parts

XXI. Major findings derived from the HM questionnaire

1. Vast majority of the schools conduct SRG meetings more than once in a month.
2. The main areas in which the head teachers had offered suggestions after going through teaching manuals of teachers, were -the learning activities to be given to students(96.11%) 'responses' (92.22%) learning materials and resources (89.44%), continuous evaluation.(87.22%).and writing 'Qualitative notes (72.22%).
3. Majority of the H. M's experience (60.56%) 'some'difficulty in providing support for the development of arts, sports, health and work experience while 28.89% reported that they feel 'very much' difficulty in providing support. H.M.s need to develop a clear understanding of the different aspects related to the development of Art-Sport-Health-Work Experience and the resources that can be used etc., for providing support for the same.

4. The major areas in which the HMs face difficulties in providing support for the development of arts, sports, health and work experience, are financial aspects, locating experts and procuring the necessary infrastructure.
5. Majority (62.22%) of the head teachers could conduct class observation only 'sometimes'-may be because they are busy with other official works at school and outside. Yet more than a third (35.56 %) of H.M.s reported that they 'always' conduct class observation and provide necessary suggestions.
6. Majority of the H.M.s (58.33%) always ensure that students attain learning outcomes whereas 38.89% sometimes do it.
7. Majority of the H.M.s under study use the services of Experts (76.67%) and Local resources (63.89%). This indicates that the excellence of the students as well as teachers is an important concern of majority of the head teachers and hence they are willing to seek maximum resource support for them from experts and local resources.
8. The various areas where the H.M.'s use the services of experts and local resources are, for giving experts' classes for teachers (37.78%); Awareness programs (33.33%); Agriculture (13.89%); Experts' classes for students (13.89%); Interviews (12.22%); Arts and sports (10%); Health activities (10%); Day celebrations (6.67%); Field trips (6.67%); Workshops (3.89); Parental help and support (2.22%) and Strengthening of PTA (2.22%).
9. The reasons for not availing of services of experts and local resources ,as given by those HMs who do not avail them, are lack of services of experts, over-workload of teachers, over-workload of H.M and financial constraints.
10. Vast majority of the H.M.s make use of the services of SMC/PTA in the following contexts - Re-opening festival (99.44%); Day celebration (90%); Festivals (Mela) (85.56%); Noon-Meal (84.44%); Anniversary (84.44%) and majority of them for Club activities (76.67%).). The other contexts where the services of SMC/ PTA are availed are Field trips (33.33%); Infrastructure (12.78%); Awareness programs (6.67%); Agriculture (6.11%); Celebrations (4.44%); Health activities (4.44%); Camps (3.33%) and Seminar Workshops (2.78%).
11. Vast majority of the H.M.s make use of the services of MPTA in the following contexts - Re-opening festival (93.89%); Noon-Meal (86.67%); Anniversary (83.89%); and Day celebration (81.67%); and majority of them for Festivals (Mela) (78.89%) and Club activities (61.11%).

12. Majority of the H.M.s make use of the services of LSG for Anniversary (71.11%) and Re-opening festival (68.33%). L.S.G is also made use of, by H.M.s, for Day celebration (46.11%); Festivals (Mela) (37.78%); Noon-Meal (37.22%) and Club activities (28.89%).
13. The services of the alumni of the school are availed by majority of the H.M.s for Anniversary (57.22%), whereas alumni support is also utilized for Re-opening festival (31.67%); Festivals (Mela) (31.67%); Day celebration (21.11%); Club activities (16.11%) and Noon-Meal (7.78%).
14. Vast majority of the H.M.s (97.22%) ensure that teachers share ideas they receive from training programmes whereas 2.22% do not do so. It is imperative from the results that vast majority of H.M.s recognize the need for sharing of ideas by teachers following all training and they ensure it.
15. Vast majority of the H.M.s (80%) organize special classes for those who do not know how to read and write. Similarly, to provide proper learning situations for students who face difficulties in learning, H.M.s take the following measures - House visits and helping to arranging conducive facilities at home (16.11%); Peer group study (11.11%); Providing work sheets (5%); Providing learning materials (4.44%); Use special learning materials and resources (3.89%); Use of ICT resources (2.22%); Providing financial support (2.22%) and Providing special support (1.67%).
16. The HMs reported that for gifted children, Competitive examinations training (33.33%); Quiz and other competitions (22.22%); Library and extra reading materials (21.67%); Special (Extra) training (16.67%); Encouragement (13.33%); Expert classes (7.78%); Supporting those who are backward (7.22%); Giving more opportunities (6.67%); Additional work (5.56%); Scholarships (5.56%); Use of Labs (4.44%); Camps (2.22%); Motivation classes (1.11%); Field trips (1.11%) and Debates/ Seminars (0.56%) were given at schools. It is a sad truism that while the schools take up many programmes for the upliftment of students with learning difficulties, enrichment of gifted students to enhance their talents is not given much importance.
17. It is seen that 71.11 % of HMs reported that ISM team had not paid monitoring visit to their school while 28.89% replied in the affirmative.
18. Out of those HMs who reported that ISM team had paid visit to their schools, 98.8 % reported that the ISM monitoring visit was effective. This indicates that the ISM

team could have given academic support to the school giving clarifications and suggestions regarding the various aspects of school activities.

19. H.M.s reported that that they had received help and support from ISM team in the following ways:- Got directions for Quality improvement (19.61%) Started special training for backward students (19.61%); Pointed out the deficiencies (17.64%); Got directions for making classes effective (15.69%) Possibilities /Scope of TLM became clear (9.80%); Empowerment of Teachers (9.80%); Got directions for conducting SRGs effectively (7.84%); Got directions for Activity- based learning (5.88%); Enhancement of confidence of teachers (5.88%); Improvement of Noon-meal (3.92%); Enhancement of efficiency (3.92%) Improvement of Infrastructure (1.96%); and School became disciplined and in order (0.56%).
20. Vast majority of H.M.s took initiative to carry out Cleanliness drive (89.44%) and Environment protection activities (83.33%) whereas Water resource management and Energy conservation activities were done by 29.44% and 23.89% respectively. There are also minor areas suggested by very negligible proportion of the HMs under study.

XXII. Major findings of FGD members (AEO)

1. Majority of the AEOs reported that they conduct monitoring of the academic activities and give support wherever and whenever needed. In addition to this they motivate teachers by appreciating their excellence.
2. According to them majority of the teachers do not prepare teaching manual as envisaged in the teacher text. It is found that majority of the teachers feel difficulty in writing reflective notes and support is needed for
3. Many of the teachers use teaching learning materials for making the classroom teaching effective. But some of the teachers are not even using the learning materials available in the school
4. It is found that the major learning material used in the classroom is the textbook itself
5. In more than half of the classes the teaching learning process takes place effectively. It is significant to note that certain classes are not at all effective.
6. In majority of classes learning products are displayed. But only in certain schools the display of products are periodically updated. It is found that the majority of the teachers are not making use of these products later.

7. Service of the teachers in a school is permitted for the smooth conduct of programmes like Youth festival and science fairs in other schools
8. AEOs reported that during monitoring, they ensure whether due consideration is given to differently abled, slow learners, gifted students,
9. Constant and continuous monitoring and support in organizing programs and fairs related to art and physical education.
10. AEOs reported that they give creative and valuable suggestions for the smooth conduct of PTA and SMC
11. AEOs are involved in the programmes of village education committees actively
12. All the AEOs reported that the internal Support Mission (ISM) visits were very much effective in enhancing the academic as well as administrative excellence.
13. AEOs participate in the DRG training of the Cluster, and they monitor each cluster and make sure that the cluster is conducted as per the module
14. The infrastructure facilities of the school as well as the classroom facilities are monitored and necessary suggestions are given for their improvement.
15. AEOs ensure whether the funds allotted to schools are properly utilized and recorded.
16. They monitor the noon meal programme and ensure that nutritious and hygienic food is given to the students without fail.
17. Majority of the AEOs feel that team monitoring is more effective than individual monitoring as both administrative and academic aspects could be monitored within a single visits

XIII. Findings based on interview/ G D: Learners

1. Majority of learners reported that they are actively involving in classroom activities; mainly through group activities and the timely involvement of majority of teachers make the group activities active and alive.
2. Majority of teachers also give clues and hints while doing self-activities by learners.
3. According to the learners, they are participating in various club activities like sports club, arts club, road safety club and they involve in the activities like conservation of nature and water, fairs, cleaning and waste management etc. They also reported that they do activities like model preparation, experimentation and work experience. It is interesting to note that they also do Pisciculture and vegetable farming in their schools

4. Learners reported that different types of learning aids like periscope, barometer, stethoscope and models are prepared by the teachers with the cooperation of learners and make use of them in the teaching learning process. Maps of different countries especially India is prepared and marked both by learners and teachers. These products are subjected to peer evaluation, self-evaluation and teacher evaluation. At the same time, in one district learners reported that they are not getting enough chances for the preparation of learning aids.
5. Majority of the learners opined that they warmly welcome the newly developed textbooks and are satisfied with its color printing, pictures and maps. They agree that the textbooks are up to the level of learners.
6. A great majority of the learners agree that they get help from their parents for studying and ask them to study.
7. A few learners reported that they are not getting any help from their parents.

XIV. Findings based on interview/ F G D: PTA

- PTA Members reported that general body meeting will be conducted at the beginning of the academic year and executive committee meetings are conducted as and when required. Most of the executive members attend the executive meetings along with the teachers.
- MPTA and CPTA meetings are conducted for ensuring the security, quality of noon meal and to provide suggestions for academic improvement.
- MPTA and CPTA meetings are to be convened as per the convenience of parents. In addition to this awareness programmes are to be conducted.
- It is reported that the facilities such as classrooms/smart classroom, toilets, facilities for the differently abled, lab and library are available in most of the schools. But not sure about the utilisation of smart classroom, lab and library.
- The major interventions made by them are donating books to the library
- Regarding the revised textbook, they reported that the text books are learner friendly, attractive and suitable for intellectual level to a certain extent. The activities included in the text book are learner friendly and practicable.
- They are unaware of the learning outcomes.

- Since there are no teachers to handle the subjects like art education, physical education and work experience, mostly students are exposed to playgrounds during these periods.
- No support is rendered by PTA for the CWSN students.
- PTA renders services to solve problems, if any.
- PTA is one of the essential components of school management
- PTA plays an important role in the availability and utilization of funds.

Practical Difficulties encountered by teachers

A. Learning Outcomes.

- Teachers experienced difficulty in attaining clarity regarding the features of learning outcome like short term and long term outcomes, outcomes attained through process oriented learning, learning outcomes that develop values, attitudes, and social commitment and that can be developed through collaborative learning.
- Teachers couldn't differentiate between short term and long term learning outcomes.
- Teachers find it difficult to understand the ideas/skills acquired from each unit of the text book through the learning outcomes.
- Teachers find difficult in the time bound completion of learning outcomes. The reasons pointed out by teachers that hinders them from time bound completion of learning outcomes are, overloaded content, lack of time, engagement of the teachers in extracurricular activities, overcrowded classroom, short duration of periods, presence of students of different levels, difference between the language used in textbook and the local language, presence of CWSN and delay in supply of textbook.

B. Learning Resources

- The difficulties pointed out by teachers with respect to the features of the textbook are: too difficult lessons for transaction, lack of activities for catering inclusive learning, difficult vocabulary used, language unsuitable for the age level of learners, lack of clarity, blurred pictures, links provided are inaccessible and lack of extended activities for enhancing creativity.
- The division of periods given in teacher text is not suitable for the transaction of the content in the text.
- Teacher text is not helpful in preparing TM. The reasons pointed out by them are : Lack of time for processing discourses, lack of examples in TT, lack of scoring key

in mathematics text, lack of periods for Maths and English, lack of additional resources, lack of sample teaching manual and lack of instructions for the preparation a TM.

- The facilities such as Social Science corner, Social Science club, Social Science lab and Mathematics lab are not available in many schools.
- The limitations noted by teachers in using lab are: lack of space, lack of time, lack of physical facilities, lack of equipment and lack of training in maintaining lab. The constraints related in using library are: lack of books, lack of space, lack of reference books, lack of time, lack of periodicals, magazines, journals and lack of librarian. The limitations with respect to ICT are: lack of trained teachers, lack of space, computers are not working, lack of computers and other equipment, lack of resource materials, lack of smart class rooms, lack of time, lack of knowledge and lack of internet. The constraints related to display boards and periodicals are :lack of availability, lack of space and absence of display boards and periodicals. The constraints pointed out for using clubs are lack of space, lack of time, abundance of activities, and insufficient number of members. With respect to corners, the limitations are, lack of resource, lack of space and lack of physical facilities.
- The limitations pointed out by teachers in the areas of Art , Health and Work experience are: lack of trained teachers, lack of space, lack of local resources, lack of music, lack of fund, lack of interest in students, lack of time, lack of modern equipment, lack of space and lack of materials.

C. Learning Process

1. Teachers face difficulty while planning the learning activities.
2. Learning of the different levels of learners' and 'Integrating arts, sports, health and work experience' are the two major thrust areas that posed difficulty for many of the teachers.
3. Teachers find difficulty in ensuring the development of process skills in learners through learning process.
4. Some teachers find it difficult to plan the learning process in such a way as to get clarity of the content through multisensory experience
5. Teachers reported that the curriculum is not appropriate in enabling learners to apply the knowledge acquired through learning process in their daily life.

6. Learning strategies like Investigative learning and Meta cognition were found to be the most difficult strategies for teachers.
7. Lack of time' and 'Lack of facilities/materials were the major reasons reported by the teachers in making use of appropriate learning strategy. They also pointed out the following reasons for experiencing difficulty in utilizing suitable learning strategies such as difficulty in considering backward learners, small size of class rooms, lack of ICT facilities, poor infrastructure facilities, lack of knowledge on how to use computers and difficulty in content.
8. Many teachers could not plan and implement the learning activities to overcome the constraints of the slow learners. Lack of specially prepared learning materials, lack of time to plan and implement the activities for different levels of learners and Lack of time were the major reasons of difficulty that were mentioned teachers .
9. Following difficulties were also suggested by teachers: TB is not suitable for slow learners Overcrowded classrooms, lack of time for preparation, Non- operation from the part of parents and lack of interest of learners.
10. Majority of the teachers were not able to ensure the attainment of learning outcomes in different level of learners. The difficulties encountered by teachers in ensuring learning outcomes were Irregular attendance of students, lack of appropriate learning activities, lack of time, lack of specially prepared teaching learning materials, unable to provide continuous support ,excessive learning activities and lack of interest among learners.
11. Many teachers find difficulty in implementing learning activities to enrich the abilities of gifted learners' .Difficulty in planning challenging learning activities, lack of time and lack of suitable learning resources are the major difficulties in the implementation of learning activities to enrich the abilities of gifted learners.

D. Evaluation

- Many teachers need clarity in assessment of learning process and in Portfolio assessment.
- Many teachers are not able to ensure learning and to provide support to learners though CE.
- Teachers are not able to carry out learning process and evaluation simultaneously. The reasons reported are -lack of planning (22.35%) and lack of awareness in

suitable learning strategies (14.12%) as the practical difficulties to carry out both learning and continuous evaluation process simultaneously.

- Teachers reported that the indicators related to different areas of evaluation are not specific.
- Teachers pointed out lack of time as well as overcrowded classroom as the difficulties to carry out evaluation.
- Teachers find it difficult to accurately record the details of continuous evaluation. The practical difficulties mentioned by teachers are lack of sufficient time, overcrowded classrooms, and lack of awareness of recording procedures, lack of timely availability of records and complexity in recording procedures.
- Teachers find it difficult to conduct evaluation properly related to art, sports and work experience. The reasons given by teachers are the lack of trained teachers in arts, sports and work experience to ensure the effective evaluation, lack of time to practice these subjects, lack of separate period for teaching these areas and lack of evaluation tools/ worksheets for evaluating these subjects.

E. Support System

- It is pointed out that less support is attained in the areas to enhance the emotional stability of children, awareness against abuses, awareness against crimes, water literacy and right based education.
- Monitoring is not carried out effectively.
- Teachers couldn't get clarity in areas of Art and Work Experience Education, Inclusive education and Guidance and Counseling.

Adequacy of Resources in the Textbook: Language (Malayalam & English)

- Teachers reported that activities like poetry completion, picture story and reading picture suitable for creative writing are to be included in the text book.
- Teachers reported that they found difficulty while transacting discourses in the classrooms. Teachers find difficulty in transacting the discourses due to lack of sample models, complexity of the learning process, Slow learners' difficulty in doing activities, language skills that are above the level of learners, and lack of sufficient vocabulary among learners.

Adequacy of Resources in the Textbook: Mathematics

- Teachers pointed out that, learners couldn't analyze and solve a problem himself completely.
- Teachers were not able to carry out activities related to ICT given in the textbook.
- It is pointed out that learning activities given can't be completed in a time-bound manner.

Adequacy of Resources in the Textbook: Science

- Teachers reported that the text book is not completely suitable with respect to the contents, materials and activities.
- Many teachers find difficulties in the making of improvised materials and designing experiments.

Answer sheet analysis of Malayalam: Error Analysis

1. Skill of writing conversation has to be improved.
2. Children need to acquire the skills for creativity, identifying words/usages appropriate to complete the activity maintaining the processing skills related to poster creation.
3. There is no accuracy in the clarity of ideas, appropriate language, sentence structure, words, and symbols etc. in the discourse of description as a part of classroom activities.
4. Only a very small percentage of students possess the ability to prepare note of reminiscence maintaining its stages/phases.
5. Students need to acquire skills for using appropriate vocabulary.
6. Children face difficulty in preparing note of appreciation based on usage, description, euphony (beauty of words)
7. Children face difficulty in completing the form of discourse, completing the poem, creatively and with clarity of ideas using words, usages, description etc.

Answer script analysis of English: Error Analysis

1. Eventhough children got idea from the given context,they are unable to express it as a thought in a simple language.
2. Students are unable to construct dialogues of their own and make so many spelling mistakes.

3. Children could not get a holistic view from a given pictures. They could write only individual sentences without any connection.

Answer sheet analysis of Mathematics: Error Analysis

1. Children need clarity in place value of numbers.
2. Eventhough children could identify the minutes and seconds of time, they are not able to solve the practical issues related to this.
4. Children can identify a.m. and p.m. But makes mistakes when moves to 12-hour clock.
5. Children face difficulty to analyze the problem and formulate inferences.

XVI. Findings based on the Answer sheet analysis of Environment Science: Error Analysis

7. Learners couldn't identify the features of fish adaptive to aquatic life.
8. The learners have not achieved the expected perceptions/skills.
9. Majority of the students could not differentiate between taproot system and fibrous root system.
10. Students face difficulty in identifying the physical features of birds adaptive to their ways of travel (flight) and procuring food.
11. Students lack the skills of observation, tabulation, formulation of interferences etc.
12. Students couldn't plan activities against environmental devastations.

Text book analysis Malayalam

1. As different methods are adapted to present ideas on the lessons, transaction of an idea to the learners is quite time consuming.
2. The contents of unit2, 3 and 5 are not suited to attain the learning outcomes
3. The content of unit 1 is not suitable for process oriented learning. In unit 1, the vastness of portions/contents defers time bound completion of lessons.
4. ICT possibilities of all lessons may be given in teacher text.
5. Poems which can be recited imbibing its music rhythm and emotions may be included in TB.

Textbook Analysis - English

1. The vastness of the content hinders proper transaction. The language used is not up to the level of standard 4 learners.

2. The activities given are not enough to develop skills, attitudes and values.
3. Units 1, 2 and 4 are environment based, but the activities are not enough to ensure it
4. Vocabulary used in the text is quite unfamiliar.
5. Most of the pictures are not attractive and lack clarity.
6. Some of the lessons in the text require more clarity and explanation.
7. Slots ensuring evaluation are not given in each unit.
8. The layout of the text book is neither child friendly nor attractive.
9. ICT integration is a challenging task for practicing teachers.

Textbook Analysis – Mathematics

1. There is no continuity in Mathematical problems.
2. Lot of Mathematical problems are presented in Unit 10
3. Differently abled learners or learners with different tastes are not taken in to account while presenting activities.
4. Some of the activities lead to answers directly, without facilitating construction of answers by the learners
5. Abundance of learning outcomes is in Unit 1 and 2 which makes it very difficult to achieve all the learning outcomes.
6. Activities that ensure learning of Mathematics outside school are not given.
7. Possibilities of Democratic Values are very rare.
8. Activities that take into account differently abled children are not included.

Textbook Analysis: Environmental science

1. The lessons in class IV environment study do not do justice to constructivist approach
2. The content of the text book facilitates rote learning
3. Unit 8 needs some changes in the activities for process oriented learning.
4. Certain technical terms in unit 2 like Beejaseersham, beejamoolametc are quite difficult to understand.
6. Pictures are not suitable in unit 2 and unit 9.
7. Most of the pictures have to be re rearranged.
7. Unit 3,4 and 8 need more explanation.
8. Units 2 and 11 need to be simplified.
9. Possibilities for Continuous Evaluation should be included in teacher text

10. The pictures in pages 65, 128 and 139 need more clarity.
11. More explanation is needed only for the activity ‘change to 24 hr clock’ in Unit 2
12. The lessons in Unit 3 – ‘Ayirangalcherumbol’, Unit 5 – ‘Roopangalvarakkam’, Unit 6 – ‘NeelavumBharavum’ need to be simplified
13. Possibilities of Democratic Values are very rare
14. The content is overloaded hence content transaction is difficult.

Suggestions emerged out of the study

A. Learning outcomes

- As teachers need more clarification of learning outcomes, orientation programmes /workshops may be arranged on areas like differentiating short term and long term outcomes, outcomes attained through process oriented learning, learning outcomes that develop values, attitudes, and social commitment and collaborative learning.
- Teachers may be oriented to adopt various teaching learning methods like provision for ICT usage, provision for extended activities, situational learning, peer tutoring, life experience and co-operative work and extended reading activities for achieving the learning outcomes.
- Teachers may be encouraged to locate and use local text and local resources effectively to ensure spiraling of learning outcomes.
- More clarity should be made in the ideas/skills to be acquired from each unit of the text book through the learning outcomes.
- Efforts should be taken to ensure the distribution of learning outcomes in different units of Class IV are according to the level of the learners.
- Learning outcomes should be reframed so as to facilitate self-evaluation.
- In order to have time bound completion of learning outcomes, the content as well as its depth should be reduced, strength of students in each class should be reduced and ensure the availability of text books in time.

B. Learning resources

- In order to make the Text Book more learner friendly, reduce the quantity and complexity of the content and use language suitable for the age level of learners, include activities for catering inclusive learning, simplify the vocabulary used and include pictures of better clarity.

- Modifications are to be made in the features of Teacher Text by including more time for processing discourses, sufficient examples in TT, availability of scoring key in Mathematics text and more clarity in text book related hints.
- Facilities like Social Science corner, Social Science club, Social Science lab and Mathematics lab are to be provided in all schools.
- Content in the Text Book of class IV should give more emphasis for the utilization of facilities like library, lab, ICT, display board, periodicals and subject corners and more instructions may be provided in this regard.
- In order to overcome the limitations in utilizing the facilities, better infrastructure facilities in lab, provide trained teachers for teaching ICT, more materials and resources, more reference materials, ICT related materials, better cooperation of community and more laptops with internet facility.
- Textbook and Teacher Text may be made more enriched for the better adaptation of CWSN.
- Provide special teachers for Art Education and Clubbing the schools and appointing resource persons in Art Education.
- Appoint special teachers for Sports and ensure regular service of health workers/nurses in schools.
- Specialized teachers in Work Experience may be appointed and financial aid to schools to buy raw materials may be provided. Teachers should also be provided training in Work Experience at the beginning of academic year itself.

C. Learning Process

- In order to overcome the difficulties experienced by teachers in planning learning activities, required materials for life skill development should be provided; utilization of smart classrooms are to be ensured; learning materials should be improved, governmental aid for learning resources and CE should be recorded term-wise.
- Better training is to be provided for teachers to ensure proper planning for the development of process skills in learners through multisensory experience and adopting the strategies like Investigative learning and Metacognition and Socialization.

- Availability of specially prepared learning materials for planning and implementing learning activities to overcome the constraints of slow learners and provision for more time should be given.
- In order to ensure learning outcomes satisfactorily in different levels of learners, learning activities may be reduced and provide specially prepared teaching learning materials.
- In order to implement learning activities to enrich the abilities of gifted learners, training may be given in planning challenging learning activities.
- Orientation may be given to teachers for transacting the content in a learner friendly manner.

D. Evaluation

- To make improvement in the areas of continuous evaluation strategies, steps may be taken for more planning, availability of suitable worksheet for lessons and more clarity in recording and editing and timely assessment.
- Teachers may be provided awareness programmes to use suitable learning strategies to carry out both learning and continuous evaluation process simultaneously.
- Training is needed to have clarity in Assessment of Learning Process, Unit Assessment, Portfolio Assessment, Self-Assessment, Peer Assessment and developing indicators for evaluation by learners.
- Teachers may be informed the importance of feedback to be given to learners and remedial instruction to be carried out in the learning process.
- Teachers may be empowered for the timely planning and recording of continuous evaluation procedures.
- Training should be given for teachers to frame different strategies for CWSN learners.
- Term evaluation should be made more systematic and less complex with better tools and strategies that are adequate for evaluating learning outcomes.
- Evaluation related to Arts, Sports and Work Experience should be made more effective by the appointment of trained teachers in Arts, Sports and Work Experience, providing sufficient time to practice these subjects, providing separate period for teaching these areas and providing evaluation tools/ worksheets for evaluating these subjects.

- Evaluation and recording of socio-emotional areas like empathy, problem solving skill, creative thinking, critical thinking and coping with stress should be made more effective and systematic by all teachers.

E.Support system

- Support from LSG and NGO's may be improved.
- Arrange conscientization programmes in the areas related to the emotional stability of children, awareness against abuses, awareness against crimes, water literacy and right based education.
- The extent of feedback provided may be increased to result in better self-academic improvement
- Orientation and training may be provided for teachers to get clarity in areas of Art and Work Experience Education, Inclusive education and Guidance and Counseling.

F. Adequacy of resources

1. Language (Malayalam and English)

- Include more provision for recitation, workshop for creative writing and identification of climax of compositions
- Activities like poetry completion, picture story and reading picture suitable for creative writing are to be included in the text book.
- Teachers may be trained to use more techniques along with role play, recitation Picture drawing/painting for acquiring language skills.
- Teacher text may be made more adequate for effective transaction of the concepts.
- Efforts may be taken to reduce the difficulty while transacting discourses in the classrooms by providing more sample model discourses, reference books, reading materials and picture story, encouraging picture reading and collaborative learning to enhance the confidence of learners.

2. Mathematics

- The concept of place value of numbers should be made more clear.
- As a significant percentage of students could not arrange the numbers in the table in the ascending and descending order and identify a particular number from that majority, emphasis should be given in this area.

- Children should be enabled to solve the practical issues related to the minutes and seconds of time.
- More concretization may be about 12 hour clock
- Children should be equipped to analyze the problems and formulate inferences.

3. Science

- Efforts may be taken for provision for making improvised materials and designing experiments in order to reduce difficulty while transacting the lessons in science.
- Science text of Class IV may include adequate knowledge about the learning aims of Science, give clear indication regarding how to plan each learning activity so as to attain the targeted learning outcomes, provide sufficient extra knowledge that helps in conceptualization/ideation and provides different learning techniques/strategies.

G. Classroom Observation :

1. Malayalam

- Learning activities suggested in TB and TT should be made more effective for developing reflective thinking among learners.
- Development of attitudes and values among children need to be ensured by all teachers.
- Teachers should be encouraged to use innovative learning aids prepared by local resources for attaining conceptual clarity
- Teachers should use already available learning aids in the school.
- Teachers should provide more slots for intellectual and emotional development, development of attitudes, values and social responsibilities stipulated in the content.
- All teachers should consolidate group activities during and at the end of each class.
- As the performance of teachers is almost average with regard to the components like Teaching Manual preparation, learning environment, and classroom intervention and evaluation process, more emphasis is to be given in these areas.
- There is a need for empowering teachers with necessary competencies and skills for making the learning process learner friendly.

2. English

- More emphasis should be provided for teachers to prepare Teaching Manual, Learning Environment, Classroom Intervention, Reflective Thought, Consolidation and Overview.

3. Mathematics

- The areas of interest and motivation, attitude and values, learning environment and reflective thinking need more improvement.

4. Environmental Science

- Reflective thinking areas may be given more importance eventhough teaching manual preparation, Learning Activities, Learning Environment, Classroom Intervention, Consolidation, Evaluation Process and Overview of the Class are good.

H. Analysis of answer sheets : Error Analysis

1. Malayalam

- More emphasis is to be given to prepare descriptions using letters and signs with clarity of ideas.
- Provision for improving Communicative skills and Process skills of learners should be made.
- Training should be provided for poem completion to enhance independent creations using appropriate language/expression without spelling mistakes.

2. English

- Training is to be given to students for adopting various strategies for conveying ideas.
- More practice sessions may be given for better communication.
- More excercises should be arranged for avoiding spelling mistakes.
- Measures should be taken to equip the students to express their thoughts in a simple language and to avoid spelling mistakes.
- Training should be provided to convey a message through a notice rather than simply having a theoretical idea about the features of a notice.
- Children should be equipped to construct meaningful connections between the sentences.

3. Mathematics

- More emphasis should be provided to internalize the basic concepts in Mathematics.
- Efforts should be taken to develop problem solving skills, to record and communicate what learners have understood.

4. Environment science

- More clarity is to be made in the achievement of the expected perceptions/skills
- More provisions are to be provided for developing process skills such as observation, tabulation, formulation of inferences
- Better conscientisation should be rendered in planning the activities against environmental devastations.

I. Textbook Analysis

1. Malayalam

- The contents of unit 2,3 and 5 may be modified as they are not suited to attain the learning outcomes
- Unit 1 is too vast in portions/contents which defers time bound completion of lessons and hence should be edited.
- Number of activities is to be reduced for the time bound completions of them.
- More models related to language elements may be given.
- ICT possibilities of all lessons may be given in teacher text.
- More poems which can be recited with musical rhythm and emotions may be included in TB

2. English

- Content is to be reduced to enhance proper transaction and language used should be simplified.
- Proper activities should be given to develop skills, attitudes and values.
- In Units 1, 2 and 4 (environment based) modifications may be made with respect to the vocabulary used, pictures used, layout, ICT integrated activities.

3. Mathematics

- Continuity in Mathematical problems is to be ensured.
- Activities should be framed to cater the needs of differently abled learners.
- Activities should ensure construction of answers by the learners
- Activities that ensure learning of Mathematics outside school should also be given.

4.Environmental Science

- The lessons should be modified to cater constructivist approach.
- More process oriented activities are to be included in Unit 8.
- Technical terms should be made comprehensible and clear pictures should be rearranged.
- Possibilities of Democratic Values are to be included.
- The concept of ‘adaptations of the fish as suited to its aquatic life’ may be made more concrete.
- More practice should be given in the concept map completion properly. Children need more clarification in the taproot system and reticulate venation to dicots, and fibrous root system and parallel venations to monocots.
- Identifying the physical features of birds, adaptive to their ways of travel (flight) and procuring food also need more concretization.
- Students should be conscientized to realize the interference of human beings in destroying natural habitats of his/her locality and plan activities against environmental devastations.
- Overloaded content may be reduced.

J. Major suggestions derived from the HM questionnaire

- Provide clear understanding of the different aspects related to the development of Arts-Sports-Health-Work Experience materials and resources that can be used so that they can provide support for the same.
- As HMs face difficulties in providing support for the development of arts, sports, health and work experience, steps may be taken for providing financial support, for ensuring the availability of experts and for procuring the necessary infrastructure.
- Head teachers should conduct class observation of teachers regularly and provide necessary suggestions.
- H.Ms should always take the responsibility of ensuring the attainment of learning outcomes in students.
- Provide financial support for availing the services of experts and local resources.
- More programmes may be arranged for the enrichment of gifted students to enhance their talents as it is not given much importance.

- As majority of HMs opined that ISM review has not been conducted in schools, steps may be taken to conduct ISM review effectively for getting clarifications and suggestions regarding the various aspects of school activities in the following means
 - ISM should be conducted in all classes
 - ISM should be conducted in all the three terms
 - Follow-up Supervisions should be conducted
 - ISM should be linked with Clusters and Teacher trainings
 - ISM should include expert teachers
 - Discussions based on evaluation should be conducted after (outside) school hours
- More initiative should be taken from the part of HMs in the areas of Water Resource Management and Energy Conservation as a part of social relationship activities.

K. Major suggestions of FGD members (AEO)

- Ensure the preparation of teaching manuals as envisaged in the teacher text and provide support in writing reflective notes for teachers.
- All teachers may be encouraged to use teaching learning materials available in the school other than textbook for making the classroom teaching effective.
- Teaching learning process taking place in all classes should be made effective.
- Periodic updating of the display of learning products should be made and the teachers should make use of these products later.
- Team monitoring may be given more importance than individual monitoring as both administrative and academic aspects could be monitored within a single visit.

L. Suggestions based on interview/ G D: Learners

- Teaching aids and models may be prepared with more cooperation of learners and use of them in the teaching learning process.
- Parents may be conscientised for enhancing the parental help rendered to their wards.

M. Suggestions based on FGD- Parents

- MPTA and CPTA meetings are to be convened as per the convenience of parents and awareness programmes are to be conducted.
- Eventhough smart classrooms, lab and library are present in majority of the schools, proper utilization of these are to be ensured.

- It is noteworthy that parents are unaware of the learning outcomes. Hence orientation sessions may be organized in schools in this regard.
- Specialized teachers are to be appointed to handle the subjects like Arts Education, Physical Education and Work Experience as most of the students are exposed to playgrounds during these periods.
- Parents may also be involved in the support that can be rendered for the CWSN students.

Practical Difficulties encountered in different areas

C. Learning Outcomes.

- Teachers experienced difficulty in attaining clarity regarding the features of learning outcome like short term and long term outcomes, outcomes attained through process oriented learning, learning outcomes that develop values, attitudes, and social commitment and that can be developed through collaborative learning.
- Teachers couldn't differentiate between short term and long term learning outcomes.
- Teachers find it difficult to understand the ideas/skills acquired from each unit of the text book through the learning outcomes.
- Teachers find difficult in the time bound completion of learning outcomes. The reasons pointed out by teachers that hinders them from time bound completion of learning outcomes are, overloaded content, lack of time, engagement of the teachers in extracurricular activities, overcrowded classroom, short duration of periods, presence of students of different levels, difference between the language used in textbook and the local language, presence of CWSN and delay in supply of textbook.

B. Learning Resources

- The difficulties pointed out by teachers with respect to the features of the textbook are: too difficult lessons for transaction, lack of activities for catering inclusive learning, difficult vocabulary used, language unsuitable for the age level of learners, lack of clarity, blurred pictures, links provided are inaccessible and lack of extended activities for enhancing creativity.
- The division of periods given in teacher text is not suitable for the transaction of the content in the text.
- Teacher text is not helpful in preparing TM. The reasons pointed out by them are : Lack of time for processing discourses, lack of examples in TT, lack of scoring key

in mathematics text, lack of periods for Mathematics and English, lack of additional resources, lack of sample teaching manual and lack of instructions for the preparation a TM.

- The facilities such as Social Science corner, Social Science club, Social Science lab and Mathematics lab are not available in many schools.
- The limitations noted by teachers in using lab are: lack of space, lack of time, lack of physical facilities, lack of equipment and lack of training in maintaining lab. The constraints related in using library are: lack of books, lack of space, lack of reference books, lack of time, lack of periodicals, magazines, journals and lack of librarian. The limitations with respect to ICT are: lack of trained teachers, lack of space, computers are not working, lack of computers and other equipment, lack of resource materials, lack of smart class rooms, lack of time, lack of knowledge and lack of internet. The constraints related to display boards and periodicals are :lack of availability, lack of space and absence of display boards and periodicals. The constraints pointed out for using clubs are lack of space, lack of time, abundance of activities, and insufficient number of members. With respect to corners, the limitations are lack of resource, lack of space and lack of physical facilities.
- The limitations pointed out by teachers in the areas of Art, Health and Work experience are: lack of trained teachers, lack of space, lack of local resources, lack of music, lack of fund, lack of interest in students, lack of time, lack of modern equipment, lack of space and lack of materials.

C. Learning Process

13. Teachers face difficulty while planning the learning activities.
14. 'Learning of the different levels of learners' and 'Integrating arts, sports, health and work experience' are the two major thrust areas that posed difficulty for many of the teachers.
15. Teachers find difficulty in ensuring the development of process skills in learners through learning process.
16. Some teachers find it difficult to plan the learning process in such a way as to get clarity of the content through multisensory experience
17. Teachers reported that the curriculum is not appropriate in enabling learners to apply the knowledge acquired through learning process in their daily life.

18. Learning strategies like Investigative learning and Meta cognition were found to be the most difficult strategies for teachers.
19. Lack of time' and 'Lack of facilities/materials were the major reasons reported by the teachers in making use of appropriate learning strategy. They also pointed out the following reasons for experiencing difficulty in utilizing suitable learning strategies such as difficulty in considering backward learners, small size of class rooms, lack of ICT facilities, poor infrastructure facilities, lack of knowledge on how to use computers and difficulty in content.
20. Many teachers could not plan and implement the learning activities to overcome the constraints of the slow learners. Lack of specially prepared learning materials, lack of time to plan and implement the activities for different levels of learners and Lack of time were the major reasons of difficulty that were mentioned teachers .
Following difficulties were also suggested by teachers: TB is not suitable for slow learners Overcrowded classrooms, lack of time for preparation, Non- operation from the part of parents and lack of interest of learners.
21. Majority of the teachers were not able to ensure the attainment of learning outcomes in different level of learners. The difficulties encountered by teachers in ensuring learning outcomes were Irregular attendance of students, lack of appropriate learning activities, lack of time, lack of specially prepared teaching learning materials, unable to provide continuous support, excessive learning activities and lack of interest among learners.
22. Many teachers find difficulty in implementing learning activities to enrich the abilities of gifted learners'. Difficulty in planning challenging learning activities, lack of time and lack of suitable learning resources are the major difficulties in the implementation of learning activities to enrich the abilities of gifted learners.

D. Evaluation

- Many teachers need clarity in assessment of learning process and in Portfolio assessment.
- Many teachers are not able to ensure learning and to provide support to learners though CE.
- Teachers are not able to carry out learning process and evaluation simultaneously. The reasons reported are -lack of planning (22.35%) and lack of awareness in

suitable learning strategies (14.12%) as the practical difficulties to carry out both learning and continuous evaluation process simultaneously.

- Teachers reported that the indicators related to different areas of evaluation are not specific.
- Teachers pointed out lack of time as well as overcrowded classroom as the difficulties to carry out evaluation.
- Teachers find it difficult to accurately record the details of continuous evaluation. The practical difficulties mentioned by teachers are lack of sufficient time, overcrowded classrooms, and lack of awareness of recording procedures, lack of timely availability of records and complexity in recording procedures.
- Teachers find it difficult to conduct evaluation properly related to art, sports and work experience. The reasons given by teachers are the lack of trained teachers in arts, sports and work experience to ensure the effective evaluation, lack of time to practice these subjects, lack of separate period for teaching these areas and lack of evaluation tools/ worksheets for evaluating these subjects.

E. Support System

- It is pointed out that less support is attained in the areas to enhance the emotional stability of children, awareness against abuses, awareness against crimes, water literacy and right based education.
- Monitoring is not carried out effectively.
- Teachers couldn't get clarity in areas of Art and Work Experience Education, Inclusive education and Guidance and Counseling.

Adequacy of Resources in the Textbook: Language (Malayalam & English)

- Teachers reported that activities like poetry completion, picture story and reading picture suitable for creative writing are to be included in the text book.
- Teachers reported that they found difficulty while transacting discourses in the classrooms. Teachers find difficulty in transacting the discourses due to lack of sample models, complexity of the learning process, slow learners' difficulty in doing activities, language skills that are above the level of learners, and lack of sufficient vocabulary among learners.

Adequacy of Resources in the Textbook: Mathematics

- Teachers pointed out the learners can't analyze and solve a problem himself completely.
- Teachers were not able to carry out activities related to ICT given in the textbook.
- It is pointed out that learning activities given can't be completed in a time-bound manner.

Adequacy of Resources in the Textbook: Science

- Teachers reported that the text book is not completely suitable with respect to the contents, materials and activities.
- Many teachers find difficulties in the making of improvised materials and designing experiments.

Answer sheet analysis of Malayalam: Error Analysis

1. Skill of writing conversation has to be improved.
2. Children need to acquire the skills for creativity, identifying words/usages appropriate to complete the activity maintaining the processing skills related to poster creation.
3. There is no accuracy in the clarity of ideas, appropriate language, sentence structure, words, and symbols etc. in the discourse of description as a part of classroom activities.
4. Only a very small percentage of students possess the ability to prepare note of reminiscence maintaining its stages/phases.
5. Students need to acquire skills for using appropriate vocabulary.
6. Children face difficulty in preparing note of appreciation based on usage, description, euphony (beauty of words)
7. Children face difficulty in completing the form of discourse, completing the poem, creatively and with clarity of ideas using words, usages, description etc.

Answer script analysis of English: Error Analysis

1. Eventhough children got idea from the given context,they are unable to express it as a thought in a simple language.
2. Students are unable to construct dialogues of their own and make so many spelling mistakes.

3. Children could not get a holistic view from a given pictures. They could write only individual sentences without any connection.

Answer sheet analysis of Mathematics: Error Analysis

1. Children need clarity in place value of numbers.
2. Eventhough children could identify the minutes and seconds of time, they are not able to solve the practical issues related to this.
4. Children can identify a.m. and p.m. But makes mistakes when moves to 12-hour clock.
5. Children face difficulty to analyze the problem and formulate inferences.

XVI. Findings based on the Answer sheet analysis of Environment Science: Error Analysis

13. Learners couldn't identify the features of fish adaptive to aquatic life.
14. The learners have not achieved the expected perceptions/skills.
15. Majority of the students could not differentiate between taproot system and fibrous root system.
16. Students face difficulty in identifying the physical features of birds adaptive to their ways of travel (flight) and procuring food.
17. Students lack the skills of observation, tabulation, formulation of interferences etc.
18. Students couldn't plan activities against environmental devastations.

Text book analysis Malayalam

1. As different methods are adapted to present ideas on the lessons, transaction of an idea to the learners is quite time consuming.
2. The contents of unit2, 3 and 5 are not suited to attain the learning outcomes
3. The content of unit 1 is not suitable for process oriented learning. In unit 1, the vastness of portions/contents defers time bound completion of lessons.
4. ICT possibilities of all lessons may be given in teacher text.
5. Poems which can be recited imbibing its music rhythm and emotions may be included in TB.

Textbook Analysis - English

1. The vastness of the content hinders proper transaction. The language used is not up to the level of standard 4 learners.
2. The activities given are not enough to develop skills, attitudes and values.

3. Units 1, 2 and 4 are environment based, but the activities are not enough to ensure it
4. Vocabulary used in the text is quite unfamiliar.
5. Most of the pictures are not attractive and lack clarity.
6. Some of the lessons in the text require more clarity and explanation.
7. Slots ensuring evaluation are not given in each unit.
8. The layout of the text book is neither child friendly nor attractive.
9. ICT integration is a challenging task for practicing teachers.

Textbook Analysis – Mathematics

1. There is no continuity in Mathematical problems.
2. Lot of Mathematical problems are presented in Unit 10
3. Differently abled learners or learners with different tastes are not taken in to account while presenting activities.
4. Some of the activities lead to answers directly, without facilitating construction of answers by the learners
5. Abundance of learning outcomes is in Unit 1 and 2 which makes it very difficult to achieve all the learning outcomes.
6. Activities that ensure learning of Mathematics outside school are not given.
7. Possibilities of Democratic Values are very rare.
8. Activities that take into account differently abled children are not included.

Textbook Analysis: Environmental science

1. The lessons in class IV environment study do not do justice to constructivist approach
2. The content of the text book facilitates rote learning
3. Unit 8 need some changes in the activities for process oriented learning.
4. Certain technical terms in unit 2 like Beejaseersham, beejamoolametc are quite difficult to understand.
5. Pictures are not suitable in unit 2 and unit 9.
6. Most of the pictures have to be re rearranged.
7. Unit 3,4 and 8 need more explanation.
8. Units 2 and 11 need to be simplified.
9. Possibilities for Continuous Evaluation should be included in teacher text
10. The pictures in pages 65, 128 and 139 need more clarity.
11. More explanation is needed only for the activity ‘change to 24 hr clock’ in Unit 2

12. The lessons in Unit 3 – ‘Ayirangalcherumbol’, Unit 5 – ‘Roopangalvarakkam’, Unit 6 – ‘NeelavumBharavum’ need to be simplified
13. Possibilities of Democratic Values are very rare
14. The content is overloaded hence content transaction is difficult.

Suggestions emerged out of the study

A. Learning outcomes

- As teachers need more clarification of learning outcomes, orientation programmes /workshops may be arranged on areas like differentiating short term and long term outcomes, outcomes attained through process oriented learning, learning outcomes that develop values, attitudes, and social commitment and collaborative learning.
- Teachers may be oriented to adopt various teaching learning methods like provision for ICT usage, provision for extended activities, situational learning, peer tutoring, life experience and co-operative work and extended reading activities for achieving the learning outcomes.
- Teachers may be encouraged to locate and use local text and local resources effectively to ensure spiraling of learning outcomes.
- More clarity should be made in the ideas/skills to be acquired from each unit of the text book through the learning outcomes.
- Efforts should be taken to ensure the distribution of learning outcomes in different units of Class IV are according to the level of the learners.
- Learning outcomes should be reframed so as to facilitate self-evaluation.
- In order to have time bound completion of learning outcomes, the content as well as its depth should be reduced, strength of students in each class should be reduced and ensure the availability of text books in time.

B. Learning resources

- In order to make the Text Book more learner friendly, reduce the quantity and complexity of the content and use language suitable for the age level of learners, include activities for catering inclusive learning, simplify the vocabulary used and include pictures of better clarity.
- Modifications are to be made in the features of Teacher Text by including more time for processing discourses, sufficient examples in TT, availability of scoring key in Mathematics text and more clarity in text book related hints.

- Facilities like Social Science corner, Social Science club, Social Science lab and Mathematics lab are to be provided in all schools.
- Content in the Text Book of class IV should give more emphasis for the utilization of facilities like library, lab, ICT, display board, periodicals and subject corners and more instructions may be provided in this regard.
- In order to overcome the limitations in utilizing the facilities, better infrastructure facilities in lab, provide trained teachers for teaching ICT, more materials and resources, more reference materials, ICT related materials, better cooperation of community and more laptops with internet facility.
- Textbook and Teacher Text may be made more enriched for the better adaptation of CWSN.
- Provide special teachers for Art Education and clubbing the schools and appointing resource persons in Art Education.
- Appoint special teachers for Sports and ensure regular service of health workers/nurses in schools.
- Specialized teachers in Work Experience may be appointed and financial aid to schools to buy raw materials may be provided. Teachers should also be provided training in Work Experience at the beginning of academic year itself.

C. Learning Process

- In order to overcome the difficulties experienced by teachers in planning learning activities, required materials for life skill development should be provided; utilization of smart classrooms are to be ensured; learning materials should be improved, governmental aid for learning resources and CE should be recorded term-wise.
- Better training is to be provided for teachers to ensure proper planning for the development of process skills in learners through multisensory experience and adopting the strategies like Investigative learning and Metacognition and Socialization.
- Availability of specially prepared learning materials for planning and implementing learning activities to overcome the constraints of slow learners and provision for more time should be given.

- In order to ensure learning outcomes satisfactorily in different levels of learners, learning activities may be reduced and provide specially prepared teaching learning materials.
- In order to implement learning activities to enrich the abilities of gifted learners, training may be given in planning challenging learning activities.
- Orientation may be given to teachers for transacting the content in a learner friendly manner.

D. Evaluation

- To make improvement in the areas of continuous evaluation strategies, steps may be taken for more planning, availability of suitable worksheet for lessons and more clarity in recording and editing and timely assessment.
- Teachers may be provided awareness programmes to use suitable learning strategies to carry out both learning and continuous evaluation process simultaneously.
- Training is needed to have clarity in Assessment of Learning Process, Unit Assessment, Portfolio Assessment, Self-Assessment, Peer Assessment and developing indicators for evaluation by learners.
- Teachers may be informed the importance of feedback to be given to learners and remedial instruction to be carried out in the learning process.
- Teachers may be empowered for the timely planning and recording of continuous evaluation procedures.
- Training should be given for teachers to frame different strategies for CWSN learners.
- Term evaluation should be made more systematic and less complex with better tools and strategies that are adequate for evaluating learning outcomes.
- Evaluation related to Arts, Sports and Work Experience should be made more effective by the appointment of trained teachers in Arts, Sports and Work Experience, providing sufficient time to practice these subjects, providing separate period for teaching these areas and providing evaluation tools/ worksheets for evaluating these subjects.
- Evaluation and recording of socio-emotional areas like empathy, problem solving skill, creative thinking, critical thinking and coping with stress should be made more effective and systematic by all teachers.

E.Support system

- Support from LSG and NGO's may be improved.
- Arrange conscientisation programmes in the areas related to the emotional stability of children, awareness against abuses, awareness against crimes, water literacy and right based education.
- The extent of feedback provided may be increased to result in better self-academic improvement
- Orientation and training may be provided for teachers to get clarity in areas of Art and Work Experience Education, Inclusive education and Guidance and Counseling.

F. Adequacy of resources

1. Language (Malayalam and English)

- Include more provision for recitation, workshop for creative writing and identification of climax of compositions
- Activities like poetry completion, picture story and reading picture suitable for creative writing are to be included in the text book.
- Teachers may be trained to use more techniques along with role play, recitation Picture drawing/painting for acquiring language skills.
- Teacher text may be made more adequate for effective transaction of the concepts.
- Efforts may be taken to reduce the difficulty while transacting discourses in the classrooms by providing more sample model discourses, reference books, reading materials and picture story, encouraging picture reading and collaborative learning to enhance the confidence of learners.

2. Mathematics

- The concept of place value of numbers should be made more clear.
- As a significant percentage of students could not arrange the numbers in the table in the ascending and descending order and identify a particular number from that majority, emphasis should be given in this area.
- Children should be enabled to solve the practical issues related to the minutes and seconds of time.
- More concretization may be about 12 hour clock
- Children should be equipped to analyze the problems and formulate inferences.

3. Science

- Efforts may be taken for provision for making improvised materials and designing experiments in order to reduce difficulty while transacting the lessons in science.
- Science text of Class IV may include adequate knowledge about the learning aims of Science, give clear indication regarding how to plan each learning activity so as to attain the targeted learning outcomes, provide sufficient extra knowledge that helps in conceptualization/ideation and provides different learning techniques/strategies.

G. Classroom Observation:

1. Malayalam

- Learning activities suggested in TB and TT should be made more effective for developing reflective thinking among learners.
- Development of attitudes and values among children need to be ensured by all teachers.
- Teachers should be encouraged to use innovative learning aids prepared by local resources for attaining conceptual clarity
- Teachers should use already available learning aids in the school.
- Teachers should provide more slots for intellectual and emotional development, development of attitudes, values and social responsibilities stipulated in the content.
- All teachers should consolidate group activities during and at the end of each class.
- As the performance of teachers is almost average with regard to the components like Teaching Manual preparation, learning environment, and classroom intervention and evaluation process, more emphasis is to be given in these areas.
- There is a need for empowering teachers with necessary competencies and skills for making the learning process learner friendly.

2. English

- More emphasis should be provided for teachers to prepare Teaching Manual, Learning Environment, Classroom Intervention, Reflective Thought, Consolidation and Overview.

3. Mathematics

- The areas of interest and motivation, attitude and values, learning environment and reflective thinking need more improvement.

4. Environmental Science

- Reflective thinking areas may be given more importance even though teaching manual preparation, Learning Activities, Learning Environment, Classroom Intervention, Consolidation, Evaluation Process and Overview of the Class are good.

H. Analysis of answer sheets\: Error Analysis

1. Malayalam

- More emphasis is to be given to prepare descriptions using letters and signs with clarity of ideas.
- Provision for improving Communicative skills and Process skills of learners should be made.
- Training should be provided for poem completion to enhance independent creations using appropriate language/expression without spelling mistakes.

2. English

- Training is to be given to students for adopting various strategies for conveying ideas.
- More practice sessions may be given for better communication.
- More exercises should be arranged for avoiding spelling mistakes.
- Measures should be taken to equip the students to express their thoughts in a simple language and to avoid spelling mistakes.
- Training should be provided to convey a message through a notice rather than simply having a theoretical idea about the features of a notice.
- Children should be equipped to construct meaningful connections between the sentences.

3. Mathematics

- More emphasis should be provided to internalize the basic concepts in Mathematics.
- Efforts should be taken to develop problem solving skills, to record and communicate what learners have understood.

4. Environment science

- More clarity is to be made in the achievement of the expected perceptions/skills
- More provisions are to be provided for developing process skills such as observation, tabulation, formulation of interferences
- Better conscientization should be rendered in planning the activities against environmental devastations.

I. Textbook Analysis

1. Malayalam

- The contents of unit 2,3 and 5 may be modified as they are not suited to attain the learning outcomes
- Unit 1 is too vast in portions/contents which defers time bound completion of lessons and hence should be edited.
- Number of activities is to be reduced for the time bound completions of them.
- More models related to language elements may be given.
- ICT possibilities of all lessons may be given in teacher text.
- More poems which can be recited with musical rhythm and emotions may be included in TB

2. English

- Content is to be reduced to enhance proper transaction and language used should be simplified.
- Proper activities should be given to develop skills, attitudes and values.
- In Units 1, 2 and 4 (environment based) modifications may be made with respect to the vocabulary used, pictures used, layout, ICT integrated activities.

3. Mathematics

- Continuity in Mathematical problems is to be ensured.
- Activities should be framed to cater the needs of differently abled learners.
- Activities should ensure construction of answers by the learners
- Activities that ensure learning of Mathematics outside school should also be given.

4. Environmental Science

- The lessons should be modified to cater constructivist approach.
- More process oriented activities are to be included in Unit 8.
- Technical terms should be made comprehensible and clear pictures should be rearranged.
- Possibilities of Democratic Values are to be included.
- The concept of 'adaptations of the fish as suited to its aquatic life' may be made more concrete.
- More practice should be given in the concept map completion properly. Children need more clarification in the taproot system and reticulate venation to dicots, and fibrous root system and parallel venations to monocots.

- Identifying the physical features of birds, adaptive to their ways of travel (flight) and procuring food also need more concretization.
- Students should be conscientised to realize the interference of human beings in destroying natural habitats of his/her locality and plan activities against environmental devastations.
- Overloaded content may be reduced.

J. Major suggestions derived from the HM questionnaire

- Provide clear understanding of the different aspects related to the development of Arts-Sports-Health-Work Experience materials and resources that can be used so that they can provide support for the same.
- As HMs face difficulties in providing support for the development of arts, sports, health and work experience, steps may be taken for providing financial support, for ensuring the availability of experts and for procuring the necessary infrastructure.
- Head teachers should conduct class observation of teachers regularly and provide necessary suggestions.
- H.Ms should always take the responsibility of ensuring the attainment of learning outcomes in students.
- Provide financial support for availing the services of experts and local resources.
- More programmes may be arranged for the enrichment of gifted students to enhance their talents as it is not given much importance.
- As majority of HMs opined that ISM review has not been conducted in schools, steps may be taken to conduct ISM review effectively for getting clarifications and suggestions regarding the various aspects of school activities in the following means
 - ISM should be conducted in all classes
 - ISM should be conducted in all the three terms
 - Follow-up Supervisions should be conducted
 - ISM should be linked with Clusters and Teacher trainings
 - ISM should include expert teachers
 - Discussions based on evaluation should be conducted after (outside) school hours
- More initiative should be taken from the part of HMs in the areas of Water Resource Management and Energy Conservation as a part of social relationship activities.

K. Major suggestions of FGD members (AEO)

- Ensure the preparation of teaching manuals as envisaged in the teacher text and provide support in writing reflective notes for teachers.
- All teachers may be encouraged to use teaching learning materials available in the school other than textbook for making the classroom teaching effective.
- Teaching learning process taking place in all classes should be made effective.
- Periodic updating of the display of learning products should be made and the teachers should make use of these products later.
- Team monitoring may be given more importance than individual monitoring as both administrative and academic aspects could be monitored within a single visit.

L. Suggestions based on interview/ G D: Learners

- Teaching aids and models may be prepared with more cooperation of learners and use of them in the teaching learning process.
- Parents may be conscientised for enhancing the parental help rendered to their wards.

M. Suggestions based on FGD- Parents

- MPTA and CPTA meetings are to be convened as per the convenience of parents and awareness programmes are to be conducted.
- Eventhough smart classrooms, lab and library are present in majority of the schools, proper utilization of these are to be ensured.
- It is noteworthy that parents are unaware of the learning outcomes. Hence orientation sessions may be organized in schools in this regard.
- Specialized teachers are to be appointed to handle the subjects like Arts Education, Physical Education and Work Experience as most of the students are exposed to playgrounds during these periods.
- Parents may also be involved in the support that can be rendered for the CWSN students.

Conclusion

From the findings it can be concluded that the teachers participating in this study were generally in favour of the new curriculum. According to the teachers the structure and organization of the new curriculum at Primary level shows that they find the goals of the

curriculum appropriate for primary education. The curriculum content was selected and organized appropriately to the level of learners: they agreed that the suggested experiments, field trips, observations, projects and instructional materials in the curriculum were adequate and appropriate to a great extent. The teachers reported that the suggested teaching and learning activities in the curriculum helped them during teaching-learning process. Textbooks are prepared in tune with the curriculum, but to be revised timely. The study revealed that students' active participation and interest in the subject matter has increased with the new curriculum. The curriculum content has a good sequence and that the subject matter is related to real life issues. However, it is found that subject matter is too detailed that orient students to rote learning especially in Social Science. They also think that the time allocated for the loaded curriculum content is not enough to carry out intended curriculum tasks. Although the teachers seemed to approve the major aspects of the new curriculum in general, there were some differences in the ways of transaction due to certain constraints like lack of time, overloaded content and lack of facilities. Although certain teachers seemed to use instructional technology, field trips and observations more often, it was observed that these teaching methods and techniques were rarely or never used during instruction in general. Although the instructional materials used by these teachers show variety (written materials, examples and models, diagrams and graphs, living things, etc.), the findings of this study show that written materials and text book were the most commonly used instructional materials in classes. Even though there is provision for the use of ICT materials in learning process, majority of teachers are not using ICT facilities. Since the physical structure and facilities of the schools emerged as one of the major factors constraining the implementation process of the new primary curriculum, the first focus is to be given to facilities, resources & materials and existing and emerging technologies. In order to use inquiry-based practices, teachers should be supported with rich and satisfactory facilities and resources. However, the results of this study show that teachers working in different schools do not have access to the same satisfactory conditions to use the desired implementation tasks in their classrooms. Situation is far from ideal in many schools trying to implement the new curriculum in the way it is intended.

It is seen that the findings of this study can be used to help curriculum developers in planning strategies for improving the present Primary school curriculum. Findings were varied in relation to parents' involvement in supporting the implementation of the

curriculum and in their active participation in school. It was found that effective consultation and parental involvement to enhance their children's learning is being encouraged. Textbooks exert a dominant influence on teaching and learning in a significant number of classrooms. Also the teacher text is suitable for transaction of all units. There was an overdependence on text book and workbook activities, which often resulted in pupils engaging in unchallenging and repetitive tasks. There was little emphasis on the development of higher-order thinking skills, on nurturing pupils' creativity, or on encouraging pupils to respond emotionally and imaginatively. The findings suggest strongly that teachers require additional supports to broaden their teaching strategies and approaches and to further focus on the process approach. There is a need for additional guidance for schools on how to adapt the curriculum to meet the diverse needs of learners. It is serious to consider the instruction and evaluation of Arts, Physical and Health Education and Work experience. Serious improvement is needed in these areas. Most schools had not developed whole-school plans for assessment. Monitoring is made by AEOs, but needs effective feedback and follows up. Although the teachers moderately or fully approved many characteristics of the new curriculum at primary level, they pointed to make necessary changes for the language and subject curriculum.

Eventhough learners have reading skills, they need to acquire skills for expressing their ideas in written form. ie, they need to acquire skills for using words/usages, avoid spelling mistake and proper sentence structure to express ideas clearly in tune with the context. Learners find difficulty in analyzing problems to arrive at valid conclusions. They also have difficulty in practical problems which involving time concepts. Learners found to lack the skills of observation, formulation of inferences and differentiation of scientific concepts. The study highlighted the need for simplified and reorganized curriculum for the attainment of full vision of the constructivist approach. Working together and sharing ideas and experiences help teachers implement the curriculum more successfully.

**ASSESSMENT OF THE IMPLEMENTATION
OF KERALA CURRICULUM 2013 AT
PRIMARY LEVEL: STANDARD VII**



**State Council of Educational Research and Training (SCERT),
Poojappura, Thiruvananthapuram, Kerala**

March 2017

**ASSESSMENT OF THE IMPLEMENTATION
OF KERALA CURRICULUM 2013 AT
PRIMARY LEVEL: STANDARD VII**



Conducted by

Department of Research, Documentation & Dissemination

State Council of Educational Research and Training (SCERT), Kerala

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Preface

The study entitled “An Assessment of the Implementation of Kerala Curriculum 2013 at Primary Level: Standard VII” is aimed to determine how the new Kerala Primary school curriculum(standard VII) is implemented in classes and to identify the factors influencing its implementation. The necessary data were collected using the tools and techniques prepared by a team of experts and teachers under the leadership of SCERT faculty.

Great effort was taken to collect, compile, classify and analyse data in order to arrive at proper findings and conclusions. The study helps us to visualize how curriculum developers’ decisions are interpreted and practiced by teachers in classrooms. The rich information collected through the survey questionnaire also helps us to identify the forces applying to the process of implementation. In turn what does or does not get implemented in the curriculum can be determined and the reasons for the differences between intended and implemented curricula can be recognized. It helps us to comprehend the process of, and the problems experienced during curriculum implementation in our state. This study also helps to identify the practical problems faced by teachers. The findings of this study can help teachers to improve their performance and instructional practices.

Hope that this study will provide valuable information in turn can help teachers, curriculum planners, authorities and decision makers to develop better-designed materials and make further progress in the curriculum design during every curriculum restructuring and reification.

I owe my sincere gratitude to all involved in the study without which this research study would not have been a grand success.

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**AN ASSESSMENT OF THE IMPLEMENTATION OF KERALA
CURRICULUM 2013 AT PRIMARY LEVEL: STANDARD VII**

EXECUTIVE SUMMARY

SCERT, Kerala

Thiruvananthapuram.

2017

Introduction

The prime objective of education is the socialization of human beings and the school is the pivotal agency to organize and transmit all the cultural and social values to individuals. Curriculum is the most effective tool to disseminate all these values to the society and individuals. To assess a curriculum a breathless effort is needed. Assessment of the process of curriculum development plays a vital role in channelizing and keeping the direction of young generation on the desired way for the achievement of national objectives and keeping the system update with respect to the changing scenario of time. Curriculum development process also undergoes transformation due to newer developments in education and its evaluation keeps it valid, reliable and keeps it in the right direction. Recommendations through evaluation for any process have a message of eternity for it. Therefore the curriculum development process is organized in such a way to prepare young men and women for pursuing higher education and also to make them able to adjust with their practical life meaningfully and productively. The goals of education can be attained only through valid reliable curriculum and proper evaluation process for updating and fulfilling required social needs.

Current reconceptualization of curricular frameworks place the curriculum content in more ecologically valid contexts, making it more inquiry based, and urging the adoption of outcomes assessment measures which tap students' abilities to engage in activities rather than test their abilities to regurgitate rote learnt facts. Such reconceptualization also place greater emphasis on the need to develop students' critical thinking and problem solving skills so that they will be prepared for the challenges and opportunities of the new millennium. With the aim of maximizing the efforts to bring about the proposed curricular reforms and to increase the success of the curriculum implementation process, there arise the need to make careful descriptions of what transpires in classrooms on a daily basis and why this happens. This will allow educationalists to find ways to support teachers, as they are required to adopt retooled and reformed curricula. If this is not done, teachers will continue with their routines: their previous experiences, what has worked in the past. As a result, change does not occur and the implementation of a new curriculum does not conform to the curriculum intended by the curriculum designers.

The Kerala Curriculum Framework, adopted in 2007 (KCF 2007), was recognized by far and wide, as it was an exemplarily, modified and progressive document that the state had to offer. KCF 2007 is apt for the present Kerala social and educational scenario, after the National Curriculum framework (NCF 2005) guidelines laid down by the NCERT. The Curriculum developed on the basis of KCF 2007 –from the primary to the higher secondary level - which thrusts the philosophical and psychological premises of Social Constructivism, Critical Pedagogy, Multiple and Emotional intelligences, Inclusion in Education, etc., and also it is stressed on the ‘Mental process of the learners.

Primary school curriculum was always considered as the cornerstone of any educational progress because it had direct influence on the ‘making’ process of the learner. The Right of Children to Free and Compulsory Education Act (RTE Act, 2009/2010) underlines the important aspects of the primary school curriculum. The Primary School curriculum in Kerala after curricular revision of KCF 2007, already had conformed to these aspects.

Curriculum evaluation is an essential phase in the development of a progressive curriculum. Curriculum development is an evolving process which makes curriculum suitable to the individual and social needs as well as the goals of the nation. Curriculum at school education revises in Kerala after every five years. The curriculum and textbook prepared as per the Kerala Curriculum Framework (KCF, 2007) has been reviewed by an expert committee appointed by the Government of Kerala and an approach paper is also developed to change the curriculum and textbooks of School education in Kerala. As a result the text book of class I, III, V, VII, XI were revised in the academic year 2014-15. The text books of class II, IV, VI, VIII, and XII revised in 2015-16 and textbook of class IX and X revised in 2016-17 academic years. A status survey at higher secondary level and a baseline study at primary and secondary levels have been conducted during this period

The present study is conducted after the implementation of current cycle of curriculum development. The investigation covers Standard 4 on the subjects such as English, Malayalam, Mathematics and Environmental Science. The study focused on five major dimensions of curriculum, i.e., learning outcomes, Learning resources and materials, Learning Process, Evaluation system and Teacher Support mechanisms. Data were collected from the different stakeholders of educational system including students, teachers, parents, Heads of institutions,

AEOs and members of the local bodies. Concurrent review and assessment of the Curriculum being followed would help to assess the merits and demerits of the existing curriculum as well as to offer suggestions to implement it in a better manner or to fill the gap, if any. Review of the curriculum is to evaluate its effectiveness after it has been implemented and reflect on what students, teachers and the society did and did not get out of it. Hence, the study, An Assessment of Kerala Curriculum at Primary Level The study was carried out by considering the following objectives:

Objectives

- To assess the Revised Kerala curriculum (Class- VII) with respect to
 - i. Learning Outcomes
 - ii. Learning Resources
 - iii. Learning Process
 - iv. Support System
 - v. Evaluation
- To find out the practical difficulties encountered by teachers in implementing the revised curriculum.
- To suggest measures for making further revision effective.

Methodology

Method

Survey method and Document analysis are the major methods used for collecting data for the present study.

Sample of the study

The present study was conducted in Class VII of six Revenue districts (Thiruvananthapuram, Idukki, Palakkad, Ernakulam, Malappuram, and Kannur). From each Revenue district, two sub districts were selected for the collection of data. The sub districts selected were: Thiruvananthapuram South and Attingal from Thiruvananthapuram district, Munnar and Arakkulam from Idukki District, Ernakulam and Thrippunithura from Ernakulam District, Mannarkkad and Ottappalam from Palakkad district, Panoor and Iritty from Kannur district and Parappanangady and Vengara from Malappuram district. The sample for the study consisted of

12 AEOs (2 AEOs from each Revenue District), 180 Headmasters/ Headmistresses (15 Headmasters from each sub district) and 720 Primary school teachers (60 teachers from each sub district).

Tools and techniques used for the Study:

The major tools and techniques used for the study were:

1. **Questionnaire for teachers (General as well as specific questionnaire for teachers)**
2. **Questionnaire for head teachers**
3. **Answer sheet analysis – Error analysis**
4. **Text book analysis(Integration, English and Mathematics of Standard II)**
5. **Class Observation Schedule**
6. **Group discussion schedule for Students, AEO and PTA**

Description of the tools and Techniques

Questionnaire for teachers

General as well as specific questionnaires were given to seventh standard school teachers. The questionnaires contain both closed and open ended questions. The questionnaires are used to collect views and suggestions of teachers regarding assessment of Revised Kerala curriculum (Malayalam, English, Mathematics and Environmental Science) with respect to its Learning Outcomes, Learning Resources, Learning Process, Evaluation and Support System. Moreover, the practical difficulties encountered by teachers in implementing the revised curriculum and their suggestions regarding different measures for making further revision of the curriculum more effective were also collected by using the questionnaire for teachers.

Questionnaire for Head Teachers

A questionnaire was prepared to collect data from Head teachers to assess the different aspects of revised curriculum such as learning outcomes, learning resources, learning process, support system and evaluation. The questionnaire include questions related to whether they are checking the teaching manual of teachers, what are the difficulties they are experiencing in giving supports to different areas of Art, Physical Education-Health and work experience, whether they are getting support from different agencies such as SMC/PTA, MPTA, LSG, ALUMNI.etc., whether the teachers are sharing the experiences they gained during different

training, what are the measures they are taken to provide support to backward and gifted students, what are the different community activities conducted in school to improve teaching and learning.

Text Book Analysis (Malayalam, English, Mathematics and Basic science of Standard VII)

Text book analysis was done to find out whether the text books (Malayalam, English, Mathematics and Basic science of Standard VII) are in conformation with the constructivist paradigm, suitability of its content in attaining learning outcomes, suitability of the content for activity based learning, whether the books contain diversity of learning activities, use child friendly language, have clarity in pictures, graphs and maps, slots for continuous evaluation, instances of disparity and what are the different areas which need further simplified explanation.

Class Observation Schedule

The class observation schedule was designed as an analytical device to observe and gather factual information regarding the performance of teachers with regard to the components such as Teaching Manual preparation, pre-planning, interest and motivation, learning activities, learning environment, classroom intervention, evaluation and consolidation.

Focus Group Discussion

Focus Group Discussion points were prepared carefully in advance through identifying the main objective(s) of the meeting, developing key questions, developing an agenda, and planning how to record the session. A detailed report is prepared after the session was finished. Observations during the session were noted and included in the report.

Answer sheet analysis (Error analysis)

Answer sheets of the standard seven students of all subjects were collected from selected schools. It was reevaluated by considering the learning outcomes stated in the text book and activities given in the worksheet. Analysis was done for all the subjects Malayalam, English, Mathematics and Basic Science separately.

Data Collection Procedure

Data collection was done by a group of six members in each education sub-districts under the leadership of concerned AEOs and faculty members of DIET. A one day workshop was conducted at SCERT for the members of data collection in order to familiarise the tools.

A one day meeting of HMs of 15 schools was conducted by AEO for collecting data from HMs using the questionnaire. For the collection of data from other sources a team was constituted. The team consists of practising teachers in the subjects of Malayalam, English, Basic science, Social Science and Mathematics including AEO and DIET faculty members. They visited various schools for collecting data from the teachers, conducted group discussion with PTA/LSG and observed the classrooms.

Questionnaire for teachers and HMs, were administered in 12 sub districts of six Revenue districts (Thiruvananthapuram, Idukki, Palakkad, Ernakulam, Malappuram, and Kannur) and their responses were collected back. The data thus obtained were scrutinised and only those found complete and correct with respect of all the necessary information above were chosen for analysis. For conducting error analysis, question papers and answer scripts from selected schools were collected and analysed using certain criteria. Desk analysis of textbooks was also conducted by using the expertise of practicing teachers. They were invited to SCERT and a format had been given to them and they noted their observations based on the criteria. These observations were then consolidated.

A series of workshops were conducted for analysing data, tabulation of data and report writing.

Statistical Technique Used

The statistical technique used for the analysis of data was Percentage Analysis.

Major findings and suggestions

Findings based on assessment of the Revised Kerala curriculum (Class- VII) with respect to Learning Outcomes, Learning Resources, Learning Process, Support System and Evaluation of the subjects such as Malayalam, English, Mathematics, Science and Social Science are given under appropriate heads.

Learning Outcome

- Majority of the teachers (above 80%) in all subjects of VII standard have clear idea regarding the characteristic features of the learning outcomes envisaged in the curriculum 2013. The remaining percentage of teachers need more clarity regarding the features of learning outcome like short and long term outcomes, outcomes attained through process oriented learning, learning outcomes that develop values, attitudes, and social commitment and that can be developed through collaborative learning.
- Majority of teachers (more than 70%) opined that they couldn't ensure the expected learning outcomes in all the learners through the transaction of the content. Teachers adopt various teaching learning methods like remedial teaching, adaptation, provision for ICT usage, provision for extended activities, situational learning, peer tutoring, life experience and co-operative work for achieving the learning outcome. But teachers could differentiate short term and long term learning outcomes only to some extent level.
- A great majority of teachers (above 65%) opined that spiralling of learning outcomes is taken care of to ensure its continuity and development from lower to higher classes.
- Most of the teachers (above 80%) are of the opinion that the learning outcomes given in different units are observable and measurable, but a significant number of teachers are not able to understand the ideas/skills to be acquired from each unit through the learning outcomes
- About half of the teachers (above 55%) opined that the learning outcomes given in different units of textbooks of class VII are not according to the age level of learners
- More than half of teachers (above 58%) have the opinion that the learning outcomes are helpful for self-evaluation only to some extent and time bound completion of learning outcomes given in textbook of subjects such as Malayalam, English, Science, Social Science and Mathematics of class VII is not possible. Among them majority opined that this is due to the lack of sufficient time, excess content and the depth of the content
- Though half of teachers (above 57%) opined that outcome focused methodology is helpful in ensuring the level of learning envisaged by RTE, a significant number of teachers have the opinion that the outcome focused methodology is not helpful in ensuring the level of learning envisaged by RTE.

Learning resources

- Even though majority of teachers (more than 65%) favour most of the characteristics of the textbooks such as framing of units considering the possibilities of varied learning strategies, adequacy of activities in appropriate situations to enhance values and attitudes, providing opportunities to foster creativity, arranging concepts in a spiralling manner, providing slots for ICT and pictures and creating a layout that arouses interest in learners and for conducting adequate follow up activities. 52.26% of teachers in Malayalam reported that activities considering different levels of learners are not given in the text book at all. According to a significant number of teachers, the content and the language used are not appropriate to the level of learners.
- The reasons pointed out by the teachers who disagree with the features of text books are higher level of the content, use of difficult vocabulary and language, ambiguity, lack of clarity, blurred pictures, lack of appropriate learning activities for differently abled students, insufficient extended activities for enhancing creativity, inaccessible links/hints in the TB, lack of slots to make use of library and language lab, lack of slots to make use of local resources and lack of activities which cater to the heterogeneous group of learners.
- Though majority of teachers (above 70%) support the teacher text in many aspects, about half of the teachers reported that the division of periods given in teacher text is not suitable for its transaction. This is crucial for the subjects Mathematics and Social Science. The other reasons pointed out by the teachers who disagree with the features of teacher text are lack of details in TT, lack of clarification of hard spots, lack of link talks and discussion points, lack of clarity in text related hints, lack of conceptual clarity in TT, lack of explanation for certain areas in the TB, lack of additional resources, lack of sample teaching manual, lack of instructions for the preparation of a TM, lack of proper training/awareness in CE, lack of time for recording CE, lack of proper instructions for CE related to each discourse, ambiguity in CE and TE, clarification regarding the cultural and historical backgrounds of the literary pieces provided in the TB is not given in TT, appropriate evaluation tools are not incorporated in TT, overcrowded classrooms, excessive number of activities, lack of time for processing discourse, lack of reference

books suggested in the TT, lack of facility for visiting sites and lack of availability of reference books.

- The facilities pointed out by great majority of teachers (above 70%) are science club, science lab, mathematics club and reading corner. The facilities reported by majority of teachers are ICT, social science club, language lab, social science lab and science corner. The facilities such as mathematics corner and social science corner are reported only by half of the teachers
- Even though half of teachers (above 57%) reported that the content in the text books gives due importance to the use of facilities like lab, library, ICT, display boards, Periodicals, club activities and reading corners to a great extent level, a significant percentage of teachers reported that content in the text book has given importance to these facilities only to some extent level.
- More than 60% of teachers reported that suitable instructions are given in the TT to make use of ICT and library to a great extent level while for about 30% of teachers make use of these to some extent level. More than 50% of teachers reported that suitable instructions are given in TT to make use of lab, magazines, periodicals, club, display board and corner to a great extent level while others to some extent level.
- Facilities such as lab, library, ICT, display board, periodicals, club and corner are used in schools to some extent level for providing learning activities to students. The limitations pointed out by the teachers are inadequate facilities, lack of equipment, fund, shelves, time, contemporary literary pieces, sufficient computers, proper training to create awareness among the teachers, sufficient space to arrange reading corner, sufficient books and furniture, subject specific magazines and periodicals, related CDs, proper training for handling ICT, internet and projector, separate room for ICT, display boards, sufficient subject related reference books and teachers.
- Variety of materials such as reading materials prepared by the teachers, local resources, resource CD (video and audio), pictures, tables, materials given by local government and other agencies, reports, worksheets and diagrams other than TT and TB are used by teachers for teaching and learning. Most of the teachers opined that they are also using magazines, field trips, Paper cutting, gifts for encouragements and daily news quiz.

- Majority of teachers (above 70%) reported that adaptation for CWSN is made by resource teachers. The other facilities which help in adaptation are text books and teacher text. Adaptation in infrastructure is carried out only by half of the teachers.
- It is found that teaching learning resources in the area of art education are present in the TT only to some extent level. The limitations with respect to art education pointed out by teachers are lack of special teachers in schools to carry out activities related to art education. They opined that this is due to the lack of training, time, financial aid and materials. They suggested appointment of specialized teacher for teaching art education in schools and rendering help from local bodies to overcome these limitations.
- It is found that teaching learning resources in the area of sports and health education are present in the TT only to some extent level. The limitations pointed out are lack of physical education teachers to handle sports, sufficient sports equipments, playground, fund and time.
- Teaching learning resources in the area of work experience are present in the TT only to some extent level. The limitations pointed out by the teachers are lack of teachers who are specially trained in carrying out classes for work experience in schools and non-availability of raw materials to give training to learners.
- Majority of teachers (above 90%) evaluate the products of learners, encourage learner's outstanding performance and reuse the products in class. It is significant to note that only a few teachers organize exhibition of learner's products in school assembly, cultural programs, BRC/ CRC level, Panchayath level and state level.

Learning process

- Majority of the teachers (above 65%) in all subjects experienced difficulties while planning learning activities and the difficulties are more for teachers in Social Science.
- 'Learning of different levels of learners', and 'Integrating arts, sports, health and work experience' are two thrust areas that posed difficulty to majority of teachers (66%). The other areas reported are slots for ICT, community bound activities and Life skills.
- It is found that majority of teachers (above 90%) of Standard VII sometimes ensured the development of Process skills in the learners through learning process, only below 10% of teachers could always ensure it in the class. It is significant to note that few teachers not at all ensured the development of process skills.

- According to majority of Teachers (more than 84%), they plan and implement learning activities to attain conceptual clarity through multi-sensory experiences. However a significant number of teachers did not do so.
- Majority of teachers (above 85%) reported that the curriculum is appropriate for enabling learners to apply the knowledge acquired through learning process in their daily life nearly one-tenth of them considered otherwise.
- Majority of teachers (above 84%) made use of learning strategies appropriate to the content. However a marked percentage of teachers did not. Some of the teachers experienced difficulties in using the strategies such as investigative learning, Meta cognition and critical thinking. It is found that majority of teachers did not plan and implement learning activities to overcome the constraints of slow learners.
- Majority of the teachers (above 60%) were not able to ensure the attainment of learning outcomes in different levels of learners, but they implemented learning activities to enrich the abilities of gifted learners.
- Majority. of teachers ((above 74%) sometimes ensured the maximum participation of all learners; only few teachers always ensured full learner participation.
- Although more than half of the teachers (above 52%) always transacted the content in a learner friendly manner, it is significant to note that a few teachers. were not learner friendly at all in content transaction. Some teachers are of the view that the instructions and explanations for possibilities given in the teacher text are insufficient. Few teachers are of the view that there should be time bound planning of activities. The awareness programs should be made more effective. Some teachers demanded for reducing the content.

Evaluation

- Even though majority of teachers (above 82%) got a clear idea about continuous assessment, a significant number of teachers need clarity in Continuous Evaluation, assessment of learning process and portfolio assessment and more clarity in recording
- It is clear that even though majority of teachers (above 60%) are able to ensure learning and to provide support to learners though CE about 40% of teachers are not able to do so. The practical difficulties teachers encountered while conducting continuous evaluation to

ensure learning and providing adequate support to learners are lack of time, complexity of learning process, overcrowded classrooms and lack of awareness.

- Even though majority of teachers (above 80%) are able to carry out learning process and evaluation simultaneously a significant number of teachers are not able to undertake the task successfully. It is noteworthy that a significant percentage of teachers reported that the indicators related to different areas of evaluation are not specific.
- A significant percentage of teachers (above 69%) reported that the indicators related to different areas of evaluation are not specific. Very few teachers reported that they need clarity in Assessment of Learning Process, Unit Assessment. A very few needs clarity of indicators in and Portfolio Assessment.
- Majority of teachers (above 75%) find lack of time as their major problem in conducting assessment of learning process. Other problems reported are overcrowded classrooms and lack of suitable criteria.
- Majority of teachers (above 90%) opined that they provide opportunities for self-evaluation and peer evaluation in learning process. It is significant to note that a significant number of teachers are not providing any opportunity for peer evaluation.
- It is clear that only few teachers are concerned with the preparation of indicators for evaluation by learners, but majority of teachers (above 67%) used indicators developed in classroom discussions. It is clear that even though majority of teachers are providing opportunities to learners to present their product related to self-evaluation and peer evaluation, a significant number of teachers are not.
- The suitable changes incorporated are giving due consideration to slow learners, peer teaching and evaluation, using ICT possibilities in evaluation, changing strategies in evaluation, editing activity enhanced to reduce spelling mistakes, simplifying activities for slow learners, giving more importance to creative writings and identifying slow learners.
- Class tests and quiz are found to be the most popular tools used by teachers for unit evaluation. Along with open book test, teachers use variety of evaluation tools/ techniques like seminars, work sheets, creative writing and collections. Teachers are considering different records such as Class Notebooks, Work sheets, Project/seminar reports, answer scripts, short notes and creative writings /assignment for continuous

evaluation. Apart from the above said records the teachers use group activities, portfolio, collections, club activities, peer evaluation, presentations, excellence in co- curricular activities and class tests for continuous evaluation.

- Even though majority of teachers (above 80%) are giving feedback based on CE for parents, a significant number of teachers are not giving feedback on CE to learners and parents.
- Even though majority of teachers (above 78%) are providing remedial teaching based on feedback from Continuous Evaluation, a significant number of teachers are not providing remedial teaching based on the feedback obtained from continuous evaluation.
- Even though 60% of teachers accurately record the details of continuous evaluation, about 40% of teachers do not accurately record the details of continuous evaluation. The practical difficulties mentioned by teachers are lack of sufficient time, overcrowded classrooms, and lack of awareness of recording procedures, lack of timely availability of records and complexity in recording procedures.
- From the analysis it is clear that more than half of the teachers (above 56%) are framing different strategies for CWSN learners. It is significant to note that a significant number of teachers are not framing different strategies for CWSN learners. The special strategies adopted by few teachers are providing activities using pictures (completing, labeling, coloring, etc.), activities which caters their interest, multidimensional activities, evaluating special abilities, easy and simple activities, simplified evaluation indicators, activities using multimedia, oral test and framing special modules.
- Majority of teachers (above 80%) reported that they have clear awareness about Term Evaluation to a great extent level. At the same time they reported that tools for TE are not suitable for evaluating the learning outcomes. Even though majority of teachers are not facing any difficulties related to TE, a significant number of teachers have difficulties related to TE. It is significant to note that about half of the teachers are not able to conduct evaluation related to arts, sports and work experience effectively.
- It is significant to note that about half of the teachers (above 58%) are not able to conduct evaluation related to arts, sports and work experience effectively. Majority of teachers (above 89%) are carrying out evaluation and recording of socio-emotional areas like

decision making ,empathy ,creative thinking andProblem solving capacity. It is important to note that a significant number of teachers are not yet carrying out evaluation and recording in coping with emotions, critical thinking and coping with stress.

Support system

- From the analysis it can be inferred that great majority of teachers received support from HMs(98.20%) and BRC(95.21%). Majority of the teachers received support from, SMC/PTA(84.43%), MPTA(88.42%), SSA(82.04%), SSG(76.05%), DIET (55.09%), SCERT(49,10%) and ISM (52.10%). Support from LSG was reported by less than half of the teachers. Only a very low percentage of teachers received support from Alumni,SPC and NGOs.
- Teachers opined that they get support from various agenciesfor enhancinginfrastructure, ensuring child rights, nurturing life skills,creating environmentalawareness, waste management, health and physical education , art and work experience and guidance and counselling.
- Majority of the teachers (74.85%) opined that self-improvement using feedback based on monitoring is done to some extent. It is clear that 94.01% of the teachers agreed thatacademic improvement was done individually on the basis of the feedback
- Most of the teachers (95.81%) agree that follow up activity was carried out based on monitoring
- Teachers reported that they are getting training in areas related tocontent, teaching learning strategies, products , art and work experience education, ICT, TE,Inclusive education, learning outcome, learning resource, health and physical educationand Guidance and counselling. But is serious to consider that they need more clarity in areas related to Health and Physical education, Inclusive Education and guidance and Counselling.
- Below fifty percentageof teachers opined that the training was helpful for them in transacting the lessons to a great extent level while 44.3% reported that the training was helpful only to some extent level.

Findings based on adequacy of resources in the text book:Malayalam

- A great majority of teachers reported that only the activity of preparing review given in the Malayalam text book is adequate for developing reading habit among students while it is desirable to include provision for recitation, workshop for creative writing and identification of climax of compositions.
- Even though majority of teachers reported that the provisions /resources for story writing, narration, appreciation, recitation, versification, conversation , description, title writing and storygiven in the text book are adequate for fostering literary aptitude among learners, only 57.42% teachers responded for puzzle/riddle framing.
- It is found that a great majority (90.32%) of teachers reported that preparation of appreciation tasks given in the text book are suitable for providing opportunity for creative writing, a significant number of teachers reported that activities like story completion and picture story suitable for creative writing are also to be included in the text book.
- Majority of teachers in Malayalam reported that recitation (87.10%), role play (80.65%), drawing and coloring (78.71%) are the major activities used in the text book for acquiring language skills where as a significant number of teachers reported that activities such as storytelling (68.39%), choreography (59.35%) and miming (50.32%) are given importance in the text book for acquiring language skills.
- It is understood from the teacher's responses that they are using club activities (85.52%), newspapers (83.87%) and school assemblies (73.55%) in schools to help the learners in acquiring language skills. But considerably less number of teachers use the facility of language labs to help the learners in acquiring language skills. It is significant that around 23% of teachers face difficulty while transacting discourses in the classrooms.

Findings based on adequacy of resources in the text books:English

- It is found thattheactivity forpreparing appreciation note (78.71%) and summarizing content (78.06%) given in theEnglishtext bookareadequate forenhancingreading habit among learners,while morethan sixty percent of teachers reportedthe activities like collection of similar composition and post reading activities as suitable for the learners.

Other resources reported by teachers are comparison of similar composition, identification of climax of compositions, workshop for creativewriting, story telling and recitation.

- It is found that 81.94%and 79.35% respectivelyreported thatthe provisions/resourcesfor story writing, recitation , description andconversation writing provided in the text bookare adequate to foster literary aptitude among learners. It is followed by description, title writing and story writing. Appreciation, recitation, poetry completion, foot note writing, storytelling, and puzzle/riddle framing are the other resources reported by teachers.
- Majority of teachers reported thatconversation writing , preparation of appreciation, narrative writing,story completion , poetry completion, card making, picture reading, description notes, picture story andscript writingare included in the text book for providing opportunity for creative writing. The other activities reported are foot note writing(58.06%)andcriticism writing(53.55%).
- It is found that majority (91.61%) of teachers reported that role play given in the textbook is useful for acquiring language skill. It is found that story telling(72.26%),recitation (69.68%) choreography (68.39%), miming (61. 29%) and colouring (55.48%)are the other activities reported by the teachers.
- Majority of teachers (86.45%) responded that the teacher text is adequate for effective transaction of the concepts given in the text book. It is also seen that 13.75% of teachers reported that the teacher text is not adequate for the effective transaction of concepts.
- Club activities (89.68%), newspaper(76.13%) school assembly (69.68%) and language lab(43.81%) are the facilitiesusedbyteachersfor acquiring language skills.

Findings based on adequacy of resources in the text books: Science

- Majority of (76.28%) teachers reported that they fully agree that contents provided in the Text Book are suitable for the attainment of the objectives of learning Science while 26.28% of teachers partially agreed with the fact. Majority of teachers (73.72%) agreed that the activities given in the Text Book are suitable for the attainment of science process skills. Only 53.85% of teachers fully agreed that activities provided in the Text Book are adequate enough to develop creativity and scientific thinking while

38.46% teachers partially agreed with the fact the same time 7.69% of teachers did not agree with the fact.

- It is found that 39.10 % of teachers reported that they find difficulty in ensuring the full participation of the students and for 38.46% teachers, in preparing improvised materials. The other difficulties reported by very few teachers are in designing experiments, finding out the resources to ensure the attainment of learning outcomes, arriving at conclusion, making use of learning resources fruitfully and preparing experiment notes.
- It is found that 66.67% teachers fully agreed that sufficient knowledge about the aims of learning science is there in the teacher text. It gives a clear indication regarding how to plan each learning activity to ensure learning outcomes (62.18%), provides sufficient extra knowledge that helps in conceptualization (53.85%) and different learning strategies for learning science (50%). It is also important to note that about 50% partially agree with the above statements.

Findings based on adequacy of resources in the text books: Social science

- Majority of teachers (85.62%) reported that activities that help students to realise the rights and duties of a citizen and act accordingly are included in the Text Book to a great extent level. Other aspects of the Text book and the corresponding number of Teachers who endorsed them to a great extent level are 'Text Book contains activities that are capable of developing values like civic sense, secularism, patriotism, respect towards national leaders, tolerance, co-operation, ability to respond and react in a situation (84.31%), activities that enable students to understand and act against the human interventions that bring about an adverse effect on Earth's ecology are included in the Text Book (83.01%), different techniques/ strategies of learning suitable for knowledge construction are included in the activities [e.g. dialogues, interviews, seminars, projects, etc.] (82.35%), there are activities that help students to realise how natural phenomena affects one's life (73.20%), there are opportunities/ instructions to use secondary and tertiary sources apart from Text Books for Knowledge construction (72.90%), there is sufficient content in the Text Book to create awareness in the students about production, distribution, consumption, distribution of wealth, etc. (72.90%), there are activities suitable for developing a positive attitude towards protecting and maintaining our cultural

heritage (71.24%), there are activities that help students to analyse historical events and to form a futuristic outlook (68.63%) and the contents in the Text book enable the students to think and analyse critically about the social problems and act towards social welfare(61.44%). However a significant number of Teachers (ranging from 15.69% to 38.56%) consider these aspects to be included in the TB to some extent only.

- Majority of Teachers opined that the Teacher Text (TT), to a great extent, provides adequate information regarding the learning objectives of Social Science text (83.01%) and gives a clear indication regarding how to plan each activity to ensure the achievement of targeted learning outcome (72.55%). However 55.25% responded that the TT provides adequate extra knowledge in the conceptualization of contents to some extent only. A significant number of Teachers (41.18%) also were of the opinion that Different strategies for learning Social Science are mentioned in the Teacher Text to some extent only.
- Majority of Teachers experienced difficulties in relating the learning tasks with current social events (95.42%), providing other resources for the collection of knowledge (84.97%), developing worksheets that are capable of realising the learning outcomes and to assess whether the students have attained them (87.58%), presenting problems in relation with life (77.78%), providing activities that help in conceptualizing abstract ideas through a concrete approach (77.12%), providing activities for the differently abled students (64.05%) and significant number of them experienced difficulties in transacting the lessons according to the levels of students (43.79%).

Findings based on adequacy of resources in the text books :Mathematics

- Majority(86.08%) of teachers reported that Teacher text in Mathematics is helpful to a great extent in enhancing conceptual knowledge of the content and 82.91% reported that teacher text is helpful to a great extent in planning class room activities, adequate pre-requisites required for conceptualization are available with the learners (78.48%), learners get opportunities for hypothesizing and generalization in the class(75.32%) and able to make the learners apply the ideas generated by them in new situations(74.68).

- It is also found that a few (51.27%) of teachers reported that there are some more areas in the Mathematics content that require more clarity for teachers. Teachers also reported that activities given in the text can be done by the learners themselves to a great extent level (59.49), able to carry out the activities given in the Side/ Boxes in the classroom (55.70), explanations in the textbook can be understood by the learners themselves (58.23).
- It is significant to note that, learning activities given can be completed in a time-bound manner to some extent level by 48.10% of teachers while a few teachers reported that learning activities given in the text cannot be completed in a time-bound manner.
- It is found that 59.49% of teachers are able to carry out activities related to ICT given in the textbook to some extent level and a significant number of teachers reported that they cannot be carried out.
- It is very important to note that majority of teachers (63.92%) reported that a child can analyse and solve a problem by himself/herself to some extent level using the Mathematics text book.

Findings based on the Answer sheet analysis of Malayalam: Error Analysis

- It is found that learners have less understanding about being creative, use of good language, and good writing style, unable to narrate experiences, to frame good and meaningful titles, inadequate vocabulary, less exposure to reading books and writers, and have no ability in expressing themselves in own language.
- They have lack of knowledge in expressing their own observation and opinion effectively, lack of skill in using good language and presenting things in good style, less exposure to reading and gaining experience from it, lack of interest in using writing skills, fail to punctuate properly and have not developed their own style of writing, creativity, power of imagination, and enough vocabulary.

Findings based on the Answer sheet analysis of English: Error Analysis

- Learners could not analyze a new poem, couldn't express ideas sequentially and could not use connectives and pronouns properly to maintain coherence.
- Majority of learners could not express ideas with cohesion by using all the relevant details.

- Students could not write a profile, story or diary with all its features. Learners do not have clear idea about morphological aspects
- Learners couldn't include all the features while writing a profile and couldn't use apt vocabulary or variety of sentences while writing a diary entry.

Findings based on the Answer sheet analysis of Science: Error Analysis

It is found that 50% of students were not able to observe and gather information from the picture and express the concept in the form of essay, or properly display the output expected out of them from the activity, respond correctly to the question, differentiate between convex and concave mirrors and hence fail to apply the knowledge.

- Moreover they are unable to express the concept, making instruments, backward in planning the experiments, predicting the results, to analyse the table and arrive at conclusions.

Findings based on the Answer sheet analysis of Social Science: Error Analysis

- With regard to questions about British East India Company, more than half of the students have responded without clarity as they lack the knowledge of content. Response without understanding the concept is also seen for questions related to the areas –Middle ages, Independence struggle and Renaissance
- Majority of the students answered in a haphazard way, as they haven't internalised the concepts properly.
- Students need more help in developing skills of observation, comparison, analysis, and using them to reach meaningful conclusions

Findings based on the Answer sheet analysis of Mathematics: Error Analysis

- The learners have not understood the features of parallelogram. 82% have the skill to measure length and angle. 18% have not acquired understanding about the measure of angles. With thorough conception of parallelism, only 50 % of the sample could draw a parallelogram.
- The activity was suitable for evaluating the learning outcome. But 75% of the learners were not able to explain the number property in the algebraic method or compare the number property in order to reach general conclusions. 75% of the learners could not analyse the question and arrive at conclusions

- A great majority (90%) of the learners failed in expressing numbers as the product of powers of its prime factors. They were not able to analyse the question and arrive at conclusions.
- 75% of learners failed to express the number property in algebraic form. The majority could not find out the relations and present them in algebraic method.
- Only 18% of the learners were able to identify and express the peculiarities of the angles formed while lines intersect parallel lines. 82% did not get the understanding about the total of angle measures in a triangle.
- It is significant to note that learners have not identified the features of a parallelogram.
- For 90% of the learners the method of presentation of the unit named numbers in 6thstd is difficult to comprehend.

Findings based on the analysis of text books (Malayalam, English, Science, Social Science and Mathematics) of standard VII

Malayalam

- Some of the lessons and activities do not facilitate construction of knowledge among students. For example in Kerala Padavali Unit, the lesson 'Alakanandayilevellaramkallukal' does not encourage the learners to have a historical, social and cultural reading.
- In Unit 2, activities that create awareness about democracy, equality, violation of human rights and denial of justice and to create the skill of oratory are not included. In Unit 3, in the lesson 'Kathivanoorveeran' discussion on traditions, mythology or myths is not included. In the lesson 'Adaykkaperukunnavar' (People who pick arecanut), and 'Njattuvelpookal' activities relating to nature, preservation of natural resources, cleanliness could have been included.
- Some of the lessons and activities are not adequate enough to attain the desirable learning outcomes. For example the lesson 'AlakanandayileVellaramKallukal' is not adequate enough to promote creative writing among learners. The lesson 'PookkathirikkanEnikkavathilla' doesn't help in attaining learning outcomes images/imagery.

- Complexity of the lessons ‘Marthandavarma’ and ‘AsanthiyudeVenalileKuliru’ defers presentation of the lesson with its fullest moods or emotions, it is quite difficult to analyze and appreciate the peculiarities of the description or narrations.
- Some of the content and activities given are not suitable for process oriented learning. The lessons in Kerala Padavali, second unit is not good enough to lead the learners to the mesmerizing world of oratory.
- Instead of the usually given traditional activities, varieties of activities that are contemporary which has Provision for ICT learning are not at all given in any unit.
- In schools and classrooms, variety of learning activities in connection with celebration of days, festivals or study tours are done, but these are not utilized properly in the text.
- The lesson ‘VeenithalloKidakunnu’ is quite suitable for developing it into a screenplay, but no reference to that is given in the lesson.
- Language that helps to interact with learners should have been included in all the lessons. But in the present text book, it is not so. The language used- in some of the units, entry activities and even the titles- do not create interest among learners. The title ‘Mayaponman’ is not standardized language. ‘Ponman’ will be mistaken for a bird. In fact the expression ‘Kanakamayamrigam’ was mistakenly translated into Malayalam as ‘Ponman’..
- Most of the pictures in Kerala Padavali and AdisthanaPadavali lack clarity. The poem ‘PookathirikkanEnikavathilla’ is above the level of learners of standard seven. The lessons ‘AzhikodeSamsarikunnu’, ‘VeenithalloKidakunnu’ are of high standard and even the gifted learners will find them difficult to grasp.
- Discrimination against a boy is shown in the lesson ‘AlankanandayileVellaramKallukal’. But no activities are provided to make our children react to such discrimination in the lesson. The relevance of democratic values can be hinted in the lesson ‘AdakkaParakunnavan’. The layout of the textbooks is not child friendly. Even though ample opportunities are therein many of the lessons to include slots for the development of democratic values, such provisions are not at all utilized.

Textbook Analysis - English

- Some of the lessons in units 1, 3 and 5 do not suit the constructivist paradigm. Language elements are included in the context but there are no activities to develop or practice them.
- The vastness of the content hinders proper transaction. The language used is not up to the level of standard 7 learners.
- Ample opportunities for process oriented learning are given in the text book.
- The text book has failed to provide variety of activities.
- With respect to the use of language, all the units follow learner friendly approach, but the vocabulary used in the text is quite unfamiliar.
- Most of the pictures are not attractive and lack clarity.
- Some of the lessons in the text require more clarity and explanation.
- Slots ensuring evaluation are not given in each unit.
- There is no possibility of any kind of discrimination *throughout the textbook*.
- The lessons help to inculcate democratic values among learners.
- The layout of the text book is neither child friendly nor attractive.
- The teacher text facilitates proper planning and creativity.
- ICT integration is a challenging task for practicing teachers. Language activities are not given much importance.

Textbook Analysis Mathematics

- Even though some of the lessons in the text book do justice to constructivist approach, some of them related to repeated multiplication, square and square root are reduced to mere statements. At the same time, lessons 3, 11 and 12 can be inferred only by learners who have higher order thinking skills.
- Presentation of 'Rules of Exponents' looks mechanical. Presentation of new concepts like square and square roots are to be made activity oriented with the support of pictures and other related materials so as to generate interest among the learners.

- Lessons related to algebra couldn't do justice to constructivist approach completely. Learning activities (content) are arranged in accordance with learning outcomes in all chapters. Chapter 4 and Chapter 7 need restructuring.
- The drawbacks that are there in certain part of the chapters of algebra, Repeated Multiplication, etc., can be made process oriented through innovative and accurate planning by a teacher.
- A lot of activities are provided in each unit which considers the individual differences and the multidimensional intelligence of the learner. In lessons like Parallel lines, square and square root in unit -2, more activities can be included.

If the learning activities in algebra are arranged in a simple and spiralling manner, it will be beneficial to both the learner and the teacher. It's not practical to evaluate fully all the skills and concepts acquired by the learner. Yet slots are provided in every lesson for continuous evaluation based on learning outcomes. Due care has been taken to include democratic values in appropriate situations.-the following lessons are examples-Money Math, Speed Math, Ratio and Pie charts

Textbook Analysis: Science

- In certain units/lessons, learning experiences provided in the text book are not adequate enough to lead the learners through constructivist paradigm. Children do not get opportunity to construct idea on their own.
- For example, in unit two, for the activity 'while looking in a mirror', asking suitable analytical questions would be sufficient to lead the children to analyze their observations while standing in front of a mirror and reach the idea lateral inversion. But the questions given in the text book 'Doesn't our right side appear left and our left side right in the image?', help the children only for guided observation, not for independent observation and its analysis leading to knowledge construction.
- In Unit 3, the topics 'We can also make a fire extinguisher' and 'Magic of the egg' could be made in tune with constructivism if adequate opportunities for drawing inferences from independent observation were given, instead of telling the ideas directly after giving the learning activities.
- Unit four, (Through the alimentary canal) and the last portions of units 6 and 10 do not agree with constructivism as the ideas and concepts are presented directly.

- The contents of almost all the units are suitable and sufficient to achieve the learning outcomes except for Importance of Organic Farming.
- In unit four ‘Understanding the importance of maintaining body hygiene and practice’ the activities are not sufficient to achieve the required learning outcome.
- In Unit seven, even though the content is almost sufficient the activities such as ‘Ball in the funnel’ (inverted), ‘filling the balloon’ and ‘pressure everywhere’ do not work properly. Similarly in Unit 9, the activity given under the title ‘Transmission of heat in metals’ is difficult to perform. It is important to note that the content related to adulterants in food substances is not sufficient.
- The content of almost all the units are suitable for activity based learning except some isolated areas which need more scientific approach in this respect.
- In some of the units, the pictures, graphs etc. are not sufficient or clear. In many instances, the illustrations given are vague, not adequately labelled, or not suited to the learning activity. For example, in Unit 1, the area “agriculture and cattle rearing” is introduced as a part of integrated farming. But instead of giving the picture of cattle rearing, the picture of ‘ploughing using cattle’ is given. The other pictures indicate poultry farming and goat rearing respectively but they are not shown as a part of integrated farming. In the case of Unit 4, all the illustrations are vague. In page No 50, the third figure is expected to show a bird eating guava fruit but the picture looks as if it is a bat. The sixth one is too vague to be recognized. So these images do not help the child to get a mental image of what is expected.
- Some areas in the textbook need further explanation. For example, in unit 1, Detailing of only one type of grafting-i.e approach grafting is given in the unit. In Unit 4, the contents related to hygiene of food and hygiene of body for health protection’ and ‘Chew and grind’ and in Unit 6 ‘water purification’, in Unit 7 ‘Bernoulli’s principle’ and in Unit 8 ‘The heart of organisms, need more explanation
- No need of simplification in any of the units except unit 7. There are ample slots for continuous evaluation in all units. There are enough slots for the development of democratic values in almost all the units except unit 2, 7 and 9

Textbook Analysis :Social Science

- .Although Lessons are suitable for attaining the learning outcomes, it's difficult to correlate not only 'Humanism and renaissance' but most of the place names and names of persons also to the previous knowledge of the student. Though new knowledge is formed in children, the recognition of the social awareness and personal thought are not being encouraged. The method of progressing from 'the known to the unknown' is not stressed.
- The content is sufficient to acquire learning objectives to a certain extent. Some part of the content is above the child's mental, social, and intellectual standards. Explanation should be presented in simple manner
- More activities are needed to explain the relation between individual and society are not stressed in many of the units
- Though learning activities are different in nature, the areas like comparison, observation, analysis, inferences etc are not stressed. The possibilities of ICT are under-utilised in some of the units, especially Unit I
- In many lessons the content is presented directly. Opportunities for conducting group discussion or deriving findings are less. The suffering and sacrifices of the leaders who took part in freedom struggle enduring the cruel force of the British are not highlighted.
- In many of the units, undue importance is given to learning outcomes and the abundance of content keep the children away from the process of constructing knowledge and for achieving values, attitudes, etc.
- The content of most of the units is presented in such a way that the students can understand, but they are not in tune with constructivism
- Though learning situations and opportunities that enable continuous evaluation are less in the text book, the teacher text provides the details.
- The text book is envisaged to develop democratic values.
- Slots for additional reading are less. Example: Explaining/discussing latitudes and longitudes.

Findings related to Class Observation

Findings based on Classroom Observation: Malayalam

- From the analysis it found that among the classes observed the performance of teachers is almost average with regard to the components like Teaching Manual preparation, learning environment, and classroom intervention and evaluation process. It is observed that only a few teachers provide a variety of learning activities to get adequate pre-requisites to all learners.
- Even though in certain classes observed, teachers used learning activities effectively, it is not found in majority of classes. In a few classes it is found that learning activities were carried out mechanically and in some other classes observed, learning activities were dull and not suitable for attaining learning outcomes. In some of the classes observed, teachers are providing slots for learning activities to develop attitudes, values and social responsibilities stipulated in the content for intellectual and emotional development.
- In majority of classes observed, teachers used easily accessible learning aids recommended in the curriculum. It is serious to consider that majority of teachers are not even using available infrastructure/ICT facilities. Even though in many of the classes observed, adequate activities/situations were provided it is noted that activities/situations provided by majority teachers were suitable for fostering creative thinking
- In more than half of the classes observed, consolidated group activities could be found during and at the end of the class. But in few classes observed, teachers consolidated only at the end of the class. Majority of teachers were seen using variety of strategies for evaluating learning outcomes based on the content. It is significant to note that a significant number of teachers depend on certain evaluation strategies suggested in the text book.

Findings based on Classroom Observation: English

- From the analysis of English classes, it can be concluded that the performance of majority of the teachers is up to the mark with respect to Teaching Manual, Preparation, Interest and Motivation, Learning Activities, Learning Environment, Classroom Intervention, Reflective Thought, Consolidation, Evaluation Process and Overview of the Class, in most of the classes.

- Even though in certain classes observed, teachers used learning activities effectively, it is not found in majority of classes. In a few classes it is found that learning activities were carried out mechanically and in some other classes observed, learning activities were dull and not suitable for attaining learning outcomes. In some of the classes observed, teachers are providing slots for learning activities to develop attitudes, values and social responsibilities stipulated in the content for intellectual and emotional development. A few teachers provided learning activities for intellectual and emotional development and advices and suggestions were the measures taken by some of the teachers for developing attitudes and values.
- There are cases in which improvement is needed with respect to teaching manual, Learning Environment, Classroom Intervention, Reflective Thought, Consolidation and overview.
- **Findings based on Classroom Observation: Science**
- Twelve classes were observed. Two teachers prepared TM creatively using additional resources and activities other than Teacher Text, whereas seven teachers planned the TM as per the curriculum using essential resources and activities. It is also observed that one of the TM'S needs improvement. It is serious to note that two teachers engaged the classes even without a Teaching Manual.
- It is observed that only a few teachers ensured the necessary pre-requisites in learners to acquire the concept through creative and varied introductory activities.
- Only a few teachers could invoke interest among the learners by framing life-oriented and thought provoking activities. It is observed that no effort was taken by a teacher to make the class interesting or motivating.
- Out of the 12 classes observed, in five classes, learning activities suggested in TB and TT were carried out effectively. In 3 classes varied learning activities provided were suitable for developing reflective thinking among learners. While observing the other three classes it is found that similar activities were carried out mechanically.
- Half of the teachers transacted the content in a sequential order in 3 classes observed and spontaneous progress in learning and timely recording in the TM were there in another three classes observed and in two classes continuity was lost in certain places.

- From the classes observed it is noted that only one teacher created infrastructure/ICT facilities and independent social and emotional environment suitable for learning activities for all types of learners, while 6 teachers provided learning activities based on available infrastructure/ICT facilities and creates essential situation necessary for independent social and emotional environment. It is serious to consider that five teachers are not even using available infrastructure/ICT facilities.
- As per the analysis it is observed that significant number of teachers intervened with all types of learners as mentors rather than teachers where as five teachers made only essential interventions to attain learning out comes and two of them intervenes only as much required to transact the content.
- While observing the classes it is found that in three classes teachers consolidated individual and group activities to ensure the learning outcomes in between and at the end of the class, whereas the other three teachers consolidated group activities at the end of the class. In the next three classes teachers consolidated at the end of the class, but no consolidation was there in the other three classes observed.
- From class room observation it is found that only a few teachers used strategies to evaluate the learning outcomes and used different types of evaluation continuously, while half of the teachers were seen using adequate strategies to evaluate learning outcomes based on the content. It is also seen that two of the teachers did not consider all levels of learners and not use all types of evaluation. In two of the classes observed, evaluation as envisaged by curriculum was not seen.
- From the analysis it can be tentatively concluded that among the 12 classes observed, majority classes come under the second category i.e. 'good' and it is serious to consider that few classes observed need improvement.

Findings based on Classroom Observation: Social Science

- From the analysis it found that among the classes observed the performance of teachers is almost average with regard to the components like Teaching Manual preparation, learning environment, and classroom intervention and evaluation process. It is observed that only a few teachers provide a variety of learning activities to get adequate pre-requisites to all learners.

- Even though in certain classes observed, teachers used learning activities effectively, it is not found in majority of classes. In a few classes it is found that learning activities were carried out mechanically and in some other classes observed, learning activities were dull and not suitable for attaining learning outcomes. In some of the classes observed, teachers are providing slots for learning activities to develop attitudes, values and social responsibilities stipulated in the content for intellectual and emotional development. A few teachers provided learning activities for intellectual and emotional development and advices and suggestions were the measures taken by some of the teachers for developing attitudes and values.
- In majority of classes observed, teachers used easily accessible learning aids recommended in the curriculum and 25% of teachers used minimum number of learning aids already available in the school. It is serious to consider that 30% of teachers are not even using available infrastructure/ICT facilities. Even though in many of the classes observed, adequate activities/situations were provided it is noted that activities/situations provided by three teachers were not adequate for providing reflective thinking.
- In about half of the classes observed, consolidated group activities could be found during and at the end of the class. But in few classes observed, teachers consolidated only at the end of the class. Majority of teachers were seen using variety of strategies for evaluating learning outcomes based on the content. It is also seen that a significant number of teachers depend on certain evaluation strategies suggested in the text book.

The above mentioned findings high light the need for empowering teachers with necessary competencies and skills for making the learning process learner friendly.

Findings based on the analysis of responses of HMS

- Majority of the schools conduct SRG meetings more than once in a month. This shows that the schools recognize the importance of conducting SRG meetings as a review and planning body of school activities and hence their higher frequency.
- The main areas in which the head teachers had offered suggestions after going through teaching manuals of teachers, were -the learning activities to be given to students(96.11%) responses (92.22%) learning materials and resources(89.44%), continuous evaluation.(87.22%).and writing ‘Qualitative notes (72.22%)

- Majority of the H.M's experience (60.56%) 'some' difficulty in providing support for the development of arts, sports, health and work experience while 28.89% reported that they feel 'very much' difficulty in providing support. H.M.s need to develop a clear understanding of the different aspects related to the development of Art-Sport-Health-Work Experience and the resources that can be used etc, for providing support for the same.
- The major areas in which the HMs face difficulties in providing support for the development of arts, sports, health and work experience, are financial aspects, locating experts and procuring the necessary infrastructure
- Majority (62.22%) of the head teachers could conduct class observation only 'sometimes'-may be because they are busy with other official works at school and outside. Yet more than a third (35.56 %) of H.M.s reported that they 'always' conduct class observation and provide necessary suggestions
- Majority of the H.M.s under study used the services of Experts (76.67%) and Local resources (63.89%). This indicates that the excellence of the students as well as teachers is an important concern of majority of the head teachers and hence they are willing to seek maximum resource support for them from experts and local resources.
- The various areas where the H.M.'s use the services of experts and local resources are, for giving experts' classes for teachers (37.78%); Awareness programs (33.33%); Agriculture (13.89%); Experts' classes for students (13.89%); Interviews (12.22%); Arts and sports (10%); Health activities (10%); Day celebrations (6.67%); Field trips (6.67%); Workshops (3.89); Parental help and support (2.22%) and Strengthening of PTA (2.22%).
- The reasons for not availing of services of experts and local resources, as given by those HMs who do not avail them, are lack of services of experts, over-workload of teachers, over-workload of H.M and financial constraints
- Majority of the H.M.s make use of the services of SMC/PTA in the following contexts - Re-opening festival, Day celebration, Festivals, Noon-Meal, Anniversary, and majority of them for Club activities.
- Majority of the H.M.s make use of the services of MPTA in the following contexts - Re-opening festival (93.89%); Noon-Meal (86.67%); Anniversary (83.89%); and Day

celebration (81.67%); and majority of them for Festivals (Mela) (78.89%) and Club activities (61.11%). Majority of the H.M.s make use of the services of LSG for Anniversary. The services of the alumni of the school are availed by majority of the H.Ms.

- Majority of the H.M.s (80%) organize special classes for those who do not know how to read and write. Similarly, to provide proper learning situations for students who face difficulties in learning, H.M.s take the following measures - House visits and helping to arranging conducive facilities at The HMs reported that for gifted children, Competitive examinations training (33.33%); Quiz and other competitions (22.22%); Library and extra reading materials (21.67%); Special (Extra) training (16.67%); Encouragement (13.33%); Expert classes (7.78%); Supporting those who are backward (7.22%); Giving more opportunities (6.67%); Additional work (5.56%); Scholarships (5.56%); Use of Labs (4.44%); Camps (2.22%); Motivation classes (1.11%); Field trips (1.11%) and Debates/ Seminars (0.56%) were given at schools. It is a sad truism that while the schools take up many programmes for the upliftment of students with learning difficulties, enrichment of gifted students to enhance their talents is not given much importance
- It is seen that 71.11 % of HMs reported that ISM team had not paid monitoring visit to their school while 28.89% replied in the affirmative.
- H.M.s reported that they had received help and support from ISM team in the following ways:- Got directions for Quality improvement HMs offered the following Suggestions for improvement of ISM: ISM should be conducted in all classes, to be conducted in all the three terms, to be linked with Clusters and Teacher trainings, discussions based on evaluation should be conducted after (outside) school hours.

Findings based on Focus group Discussion with AEOs

- Majority of the AEOs reported that they conduct monitoring of the academic activities and give support wherever and whenever needed. In addition to this they motivate teachers by appreciating their excellence.

- According to the majority of the teachers do not prepare teaching manual as envisaged in the teacher text. It is found that majority of the teachers feel difficulty in writing reflective notes.
- Many of the teachers use teaching learning materials for making the classroom teaching effective. But some of the teachers are not even using the learning materials available in the school. It is found that the major learning material used in the classroom is the textbook itself
- In more than half of the classes the teaching learning process takes place effectively. It is significant to note that certain classes are not at all effective.
- In majority of classes learning products are displayed. But only in certain schools the display of products are periodically updated. It is found that the majority of the teachers are not making use of these products later.
- Service of the teachers in a school is permitted for the smooth conduct of programmes like Youth festival and science fairs in other schools
- AEOs reported that they give creative and valuable suggestions for the smooth conduct of PTA and SMC. They are involved in the programmes of village education committees actively
- All the AEOs reported that the internal Support Mission (ISM) visits were very much effective in enhancing the academic as well as administrative excellence. AEOs participate in the DRG training of the Cluster, and they monitor each cluster and make sure that the cluster is conducted as per the module
- The infra structure facilities of the school as well as the classroom facilities are monitored and necessary suggestions are given for their improvement. AEOs ensure that the funds allotted to schools are properly utilized and the records are kept. They monitor the noon meal programme and ensure that nutritious and hygienic food is given to the students without fail.
- Majority of the AEOs feel that team monitoring is more effective than individual monitoring as both administrative and academic aspects could be monitored within a single visits

.Findings based on group discussion with Learners

- Majority of learners reported that they actively involved in classroom activities. Through timely intervention in group activities majority of teachers made the classes active and lively. But it is found that in one of the schools in a sub district, learners did not get much opportunity to involve in group activities.
- Learners reported that teachers assisted them in group activities and in doing experiments. They also clarified their doubts. It is also reported that many of the teachers identified the learners who faced difficulties and suggested remedial measures. Majority of teachers also give clues and hints to the learners.
- According to the learners, they are participating in various club activities like sports club, arts club, road safety club and they involve in the activities like conservation of nature and water, fairs, cleaning and waste management etc. They also reported that they do activities like model preparation, experimentation and work experience. It is interesting to note that they also do Pisciculture and vegetable farming in their schools.
- Learners reported that different types of learning aids like periscope, barometer, stethoscope and models are prepared by the teachers with the cooperation of learners and make use of them in the teaching learning process. Maps of different countries especially India is prepared and marked both by learners and teachers. These products are subjected to peer evaluation, self-evaluation and teacher evaluation. At the same time, in one district learners reported that they are not getting enough chances for the preparation of learning aids.
- Majority of the learners opined that they warmly welcome the newly developed textbooks and are satisfied with its color printing, pictures and maps. They agree that the textbooks are up to the level of learners. But they complained that they are not getting the textbooks within the prescribed time schedule.
- A great majority of the learners agree that they get help from their parents for studying and ask them to study. Some of the students reported that their parents daily examine the note books and ask questions related to it. Some of them also help in doing homework and clear their doubts. For this they get advice from PTA meetings. A few learners reported that they are not getting any help from their parents

Analysis based on Focus Group Discussion with PTA

- PTA Members reported that general body meeting is conducted at the beginning of the academic year and executive committee meetings are conducted as and when required. Most of the executive members attend the executive meetings along with the teachers.
- MPTA and CPTA meetings are conducted for ensuring the security, quality of noon meal and to provide suggestions for academic improvement.
- It is reported that the facilities such as classrooms, toilets for the differently abled are available in most of the schools. Regarding the revised textbook, they reported that the text books are learner friendly, attractive and suitable for intellectual level to a certain extent. The activities included in the text book are learner friendly and practicable.
- They are unaware of the learning outcomes. No support is rendered by PTA for the CWSN students, but renders services to solve problems, if any. PTA plays an important role in the availability and utilisation of funds.

Practical Difficulties Encountered by Teachers in different areas

- The difficulties reported by the teachers for attaining all learning outcomes are lack of time, excess content, day celebration and co-curricular activities, involvement of teachers in duties other than class room teaching, excess activities and presence of different level of learners. Some other areas are higher level of the content, difficult vocabulary and language ambiguity, lack of appropriate activities for differently abled students, insufficient extended activities for enhancing creativity, inaccessible links and hints and lack of resources and lack of slots to make use of local resources, library and laboratory.
- The difficulties with respect to art education pointed out by teachers are lack of special teachers to deal with art, lack of training, lack of time, lack of financial support, lack of materials and opposition from certain religions section. The suggestions given by the teachers for overcoming these limitations are to appoint specialized teachers for art. to provide support from LSG and to conduct training programmes for other subject teachers to equip them to handle Art classes.
- Some of the teachers experienced difficulties in using the strategies such as Investigative learning and meta cognition critical thinking.

- 'Lack of time' and 'Lack of facilities/materials' were the major difficulties mentioned by the teachers to make use of appropriate learning strategies. The other genuine difficulties reported by teachers are in considering backward learners, Small size of class rooms.

- Difficulties reported by teachers in the implementation of learning activities to enrich the abilities of gifted learners are difficulty in planning challenging learning activities and Lack of time.
- The difficulty faced by the teachers to carry out learning process and evaluation simultaneously is lack of proper planning. The other difficulties reported are giving more emphasis to learning process than evaluation and lack of awareness about suitable strategies.
- The practical difficulties mentioned by teachers in the recording of continuous evaluation are lack of sufficient time, excess number of students, lack of timely availability of records, complexity in recording and lack of awareness of recording procedure. The other difficulties reported are inadequate evaluation strategies, difficulty in grading and difficulty in recording, in framing questions suiting different level of learners, lack of time, over loaded content and abundance of students.

Suggestions emerged out of the study

The suggestions derived out of the study are given under appropriate heads:

Learning outcome

- Provide more clarity to the teachers regarding the characteristic features of the learning outcomes envisaged in the curriculum 2013.
- Simplification of the content, Special Training to teachers and provision for Extended activities are the suggestions given by the teachers of class 7 to achieve the expected learning outcomes.
- Strengthen the training by emphasizing the ideas/skills to be acquired from each unit through the learning outcomes.

Learning resources

- Provide more activities, that can be executed in the classroom itself, considering different levels of learners.

- Resource teachers mainly provide help in the adaptation of CWSN, so ensure the authorities the service of resource teachers in all needed schools.
- Teaching learning resources in the area of art, sports and health and work experience are present in the Teacher Text only to some extent level. So more activities are to be included under appropriate areas in the Text books.
- Provide resource persons with the co-operation of local bodies; appoint special teachers for sports and ensure regular service of health workers/nurses in schools.
- Provide special teachers for art education in each school Teachers suggested for providing training to teachers at the beginning of academic year in transacting activities related to work experience.
- The notable suggestions given by the teachers are to provide sufficient books and furniture, reference books, display board, subject specific magazines and periodicals contemporary literary pieces, modern facilities, financial aid for improving library facilities, separate room for library, provide financial aid to aided schools by government, SSA and RMSA, provide computers for both UP and HS, financial aid for buying computers, separate smart classroom as well as ICT enabled classrooms, equip them with adequate ICT training, provide with subject related CD's and projections, provide free periodicals to all schools, allot separate period for club activities and reduce the content and activities in the TB to make the club activities more effective.

Learning process

- It necessitates the intensive training especially thrust areas like Life skills, Continuous evaluation, Community bound activities, Values/attitudes, and Utilising learning resources.
- Limit the classroom strength and provide specially prepared learning materials to overcome the constraints of slow learners and gifted learners.

Evaluation

- Suggestions put forward by teachers for improvement regarding the areas of continuous evaluation strategies are need of more planning, providing suitable worksheet for lessons and need of more clarity in recording

- They also suggested to appoint trained teachers in arts, sports and work experience to ensure the effective evaluation, providing sufficient time to practice these subjects, providing separate period for teaching these areas and providing evaluation tools/worksheets for evaluating these subjects.

Subject Specific

- It is desirable to include provision for recitation, workshop for creative writing and identification of climax of compositions and activities like story completion and picture story, suitable for creative writing are to be included in the English and Malayalam text books.
- The teachers suggested for reducing the content and using language suitable for the age level of learners.
- The teachers who opined that the spiralling is not done suggest to include the same group of teachers in preparing the textbooks from class I to VII to ensure spiralling.
- Majority of teachers of in all subjects reported that it is better that the size of the textbook is to be reduced to that of the teacher text so that it will be handy to students. The quality of the printing should be raised so that the pictures depicted will become clear and self-explanatory.

Suggestions for improving teacher training programmes

- Training on ICT enabled classroom transaction should be given periodically and subject specific resource CDs are to be provided
- The resource persons should be selected on the basis of their quality and dedication to the training. Service of experts from different fields like well trained teachers, doctors and psychologists, special teachers, and scientists should also be made use of in the training programme
- The areas of training should include Preparation of teaching learning materials like Work sheets, and additional learning activity package, Arts, Sports and Health education, Activities for differently abled children, teaching manual preparation, communicative English, counseling, management, and evaluation. Unit wise analysis and reduction in the complexities of specific areas should be done.

- Training should be time bound They should be given during vacation or holidays without affecting the regular classes.
- Model classes should also be arranged along with theoretical sessions..
- Teachers should be provided training in all the subjects they handle.

Training in different subjects should be arranged on different days so that it won't affect school.

- English teachers demand that Use of language lab should be included training. The possibility of theatre and language games may be ensured.
- Learning strategies aiming at the overall development of the learners should be included.
- ISM visit should be made permanent.
- Strict measures to be taken against teachers who fail to attend training.
- Teacher empowerment should be enhanced through video conferencing..
- Science teachers demand Sessions on experiments and activities which are included in the text book. Each teacher should be given opportunity to practice experiments.

Suggestions for improving quality of text books and teacher text

- Distinguish activities from main stream and side box is found to be difficult..
- Attractive layout should be given to enable the learners to undertake activities on their own.(projecting Method)
- ICT possibilities should be in separate boxes that can be (easily) noticed.
- Interesting information related to the lesson must be included in the blank spaces provided.
- Seventh standard teacher text enables the teacher to transact the learning outcomes. More practical problems and worksheets connected with learning outcomes of each units should be included in the TT.

- Some of the detailed explanation given in the TB should be shifted to the TT. Avoid too much of explanation in the TB but include in TT. By doing this the complaint regarding over loaded content can be minimized to a great extent.

Conclusion

From the findings it can be concluded that the teachers participating in this study were generally in favour of the new curriculum. According to the teachers the structure and organization of the new curriculum at Primary level shows that they find the goals of the curriculum appropriate for primary education. The curriculum content was selected and organized appropriately to the level of learners: they agreed that the suggested experiments, field trips, observations, projects and instructional materials in the curriculum were adequate and appropriate to a great extent. The teachers reported that the suggested teaching and learning activities in the curriculum helped them during teaching -learning process. Textbooks are prepared in tune with the curriculum, but to be revised timely. The study revealed that students' active participation and interest in the subject matter has increased with the new curriculum. The curriculum content has a good sequence and that the subject matter is related to real life issues. However, it is found that subject matter is too detailed that orient students to rote learning especially in Social Science. They also think that the time allocated for the loaded curriculum content is not enough to carry out intended curriculum tasks. Although the teachers seemed to approve the major aspects of the new curriculum in general, there were some differences in the ways of transaction due to certain constraints like lack of time, overloaded content and lack of facilities. Although certain teachers seemed to use instructional technology, field trips and observations more often, it was observed that these teaching methods and techniques were rarely or never used during instruction in general. Although the instructional materials used by these teachers show variety (written materials, examples and models, diagrams and graphs, living things, etc.), the findings of this study show that written materials and text books were the most commonly used instructional materials in classes. Even though there is provision for the use of ICT materials in learning process, majority of teachers are not using ICT facilities. Since the physical structure and facilities of the schools emerged as one of the major factors constraining the implementation process of the new primary curriculum, the first focus is to be given to facilities, resources & materials and existing and emerging technologies. In order to use inquiry-based practices, teachers should be supported with rich and satisfactory facilities and

resources. However, the results of this study show that teachers working in different schools do not have access to the same satisfactory conditions to use the desired implementation tasks in their classrooms. Situation is far from ideal in many schools trying to implement the new curriculum in the way it is intended.

It is seen that the findings of this study can be used to help curriculum developers in planning strategies for improving the present Primary school curriculum. Findings were varied in relation to parents' involvement in supporting the implementation of the curriculum and in their active participation inschool. It was found that effective consultation and parental involvement to enhance their children's learning is being encouraged. Textbooks exert a dominant influence on teaching and learning in a significant number of classrooms. Also the teacher text is suitable for transaction of all units. There was an overdependence on text book and workbook activities, which often resulted in pupils engaging in unchallenging and repetitive tasks. There was little emphasis on the development of higher-order thinking skills, on nurturing pupils' creativity, or on encouraging pupils to respond emotionally and imaginatively. The findings suggest strongly that teachers require additional supports to broaden their teaching strategies and approaches and to further focus on the process approach. There is a need for additional guidance for schools on how to adapt the curriculum to meet the diverse needs of learners. It is serious to consider the instruction and evaluation of Arts, Physical and Health Education and Work experience. Serious improvement is needed in these areas. Most schools had not developed whole-school plans for assessment. Monitoring is made by AEOs, but needs effective feedback and follow up. Although the teachers moderately or fully approved many characteristics of the new curriculum at primary level, they pointed to make necessary changes for the language and subject curriculum.

The learners of seventh standard are not able to express their own observations and opinions effectively and lack skill in using good language and presenting things in good style. They have less exposure to reading and gaining experience out of it. Majority learners maintain an average level in the skills for observation and formulation of inference. Answer sheet analysis revealed that this may be due to the constraints in following constructivist approach in the classroom. The study highlighted the need for simplified and reorganized curriculum and providing all facilities to schools for adopting the constructivist approach by all means and also for catering the needs of CWSN. Working together and sharing ideas and experiences help teachers implement the curriculum more successfully.

Chapter - 1

Introduction

The prime objective of education is the socialization of human beings and the school is the pivotal agency to organize and transmit all the cultural and social values to individuals. Curriculum is the most effective tool to disseminate all these values to the society and individuals. To assess a curriculum a breathless effort is needed. Assessment of the process of curriculum development plays a vital role in channelizing and keeping the direction of young generation on the desired way for the achievement of national objectives and keeping the system update respect to changing scenario of time. Curriculum development process also undergoes transformation due to newer developments in education and its evaluation keeps it valid, reliable and keeps it in the right direction. Recommendations through evaluation for any process have a message of eternity for it. Therefore the needs to organize the curriculum development process in such a way which should prepare young men and women for pursue of the higher education as well as to make them able to adjust with their practical life meaningfully and productively are necessary. The goals of education can be attained only through valid reliable curriculum and proper evaluation of the process for updating and fulfilling required social needs.

Current re-conceptualizations of curricular frameworks place the curriculum content in more ecologically valid contexts, making it more inquiry based, and urging the adoption of outcomes assessment measures which tap students' abilities to engage in activities rather than test their abilities to regurgitate rote learnt facts. Such re-conceptualizations also place greater emphasis on the need to develop students' critical thinking and problem solving skills so that they will be prepared for the challenges and opportunities of the new millennium. With the aim of maximizing the efforts to bring about the proposed curricular reforms and to increase the success of the curriculum implementation process, there arise the need to make careful descriptions of what transpires in classrooms on a daily basis and why this happens. This will allow educationalists to find ways to support teachers, as they are required to adopt retooled and reformed curricula. If this is not done teachers continue with their routines: their previous experiences, what has worked in the past. As a result, change does not occur and the implementation of a new curriculum does not conform to the curriculum intended by curriculum designers.

It helps us to visualize how curriculum developers' decisions are interpreted and practiced by teachers in classrooms. The rich information collected through the survey questionnaire also helps us to identify the forces applying to the process of implementation. In turn what does or does not get implemented in the curriculum can be determined and the reasons for the differences between intended and implemented curricula can be recognized. This study also helps to identify the practical problems faced by teachers. The findings of this study can help teachers to improve their performance and instructional practices. This valuable information in turn can help curriculum planners, authorities, decision makers to develop better-designed materials and make further progress in the curriculum design.

The Kerala Curriculum Framework, adopted in 2007 (KCF 2007), was recognized by far and wide, that it was an exemplary, modified and progressive document that the State had to offer - apt for the Kerala social and educational scenario, after the National Curriculum framework (NCF 2005) guidelines laid down by the NCERT. The Curriculum developed on the basis of KCF 2007 –from the primary to the higher secondary level - giving thrust to philosophical and psychological premises of Social Constructivism, Critical Pedagogy, Multiple and Emotional intelligences, Inclusion in Education, etc., stressed on the 'Mental process of the learners.

Primary school curriculum was always considered the cornerstone of any educational progress, because it had direct influence on the 'making' process of the learner. The Right of Children to Free and Compulsory Education Act (RTE Act, 2009/2010) underlines the important aspects of the primary school curriculum. The Primary School curriculum in Kerala after curricular revision of KCF 2007, already had conformed to these aspects.

Curriculum evaluation is an essential phase in the development of a progressive curriculum. Curriculum development is an evolving process which makes curriculum suitable to the individual and social needs as well as the goals of the nation. Curriculum at school education revises in Kerala after every five years. The curriculum and textbook prepared as per the Kerala Curriculum Framework (KCF, 2007) has been reviewed by an expert committee appointed by government of Kerala and an approach paper developed to change the curriculum and textbooks of School education in Kerala. As a result the text books of 1st, 3rd, 5th, 7th and 11th standards were revised in the academic year 2014-15. The text books of 2nd, 4th, 6th, 8th and 12th standards were revised in 2015-16 and textbook of 9th and 10th were revised in 2016-17 academic years. A status survey at higher secondary

level and a baseline study at primary and secondary levels have been conducted during the period.

Need and Significance of the Study

Curriculum implementation refers to the act of working out the plans and suggestions that have been made by curriculum specialists and subject experts in a classroom or school setting. Teachers are the main curriculum implementers, while at the same time students, parents, school administrators can be directly or indirectly involved in the implementation process. Curriculum implementation entails putting into practice the officially prescribed courses of study, syllabuses and subjects. The process involves helping the learner acquire knowledge or experience. It is important to note that curriculum implementation cannot take place without the learner. The learner is therefore the central figure in the curriculum implementation process. Implementation takes place as the learner acquires the planned or intended experiences, knowledge, skills, ideas and attitudes that are aimed at enabling the same learner to function effectively in a society.

The teachers view their role in curriculum implementation as an autonomous one. They select and decide what to teach from the prescribed syllabus or curriculum. Since implementation takes place through the interaction of the learner and the planned learning opportunities, the role and influence of the teacher in the process is indisputable. It is a fact that teachers are pivotal in the curriculum implementation process. If the teacher is to be able to translate curriculum intentions into reality, it is imperative that the teacher understand the curriculum document or syllabus well in order to implement it effectively. SCERT is the apex body in the development of School curriculum. Timely restructuring and reification of curricula are taking place incorporating the developments in Science, technology and in other areas. Thus in 2013 new curriculum was designed and so it is significant to assess the implementation of the curriculum for the future curriculum revisions.

The present study is conducted after the implementation of current cycle of curriculum development. The study is planned to conduct in different phases: lower primary level and upper primary level. The present investigation covers upper primary level of standard 7 on the subjects such as English, Malayalam, Science, Social Science and mathematics. The study focused on five major dimensions of curriculum, i e, Learning outcome, Learning

resources and materials, Learning Process, Evaluation system and Teacher support mechanisms. Data were collected from the different stakeholders of educational system including students, teachers, parents, heads of institutions, AEOs and members of the local bodies.

A concurrent review and assessment of the Curriculum being followed would help to assess the merits and demerits of the existing curriculum as well as to offer suggestions to implement it in a better manner or to fill the gap, if any. Review of the curriculum is to evaluate its effectiveness after it has been implemented and reflect on what students, teachers and the society did and did not get out of it. Hence, the study, ‘Assessment of the Implementation of Kerala Curriculum 2013 At Primary Level: Standard VII’.

Objectives

The study has carried out by considering the following objectives:

- To assess the Revised Kerala curriculum (Class- VII) with respect to
 - i. Learning Outcomes
 - ii. Learning Resources
 - iii. Learning Process
 - iv. Support System
 - v. Evaluation
- To find out the practical difficulties encountered by teachers in implementing the revised curriculum.
- To suggest measures for making further revision effective.

Methodology

Method

Survey method and Document analysis are the major methods used for collecting data for the present study.

Population of the study

The population of the study consisted of all AEOs, Headmasters/ Headmistresses, teachers, students and PTA members of Lower Primary and Upper Primary schools in Kerala State.

Sample of the study

The present study was conducted in class VII of 6 Revenue districts (Thiruvananthapuram, Idukki, Palakkadu, Ernakulam, Malappuram, and Kannur). From each Revenue district 2 sub districts were selected for the collection of data. The sub districts selected were: Thiruvananthapuram South and Attingal from Thiruvananthapuram district, Munnar and Arakkulam from Idukki District, Ernakulam and Thrippunithura Ernakulam District, Mannarkkad and Ottappalam from Palakkad district, Pannor and Iritty from Kannur district and Parappanangady and Vengara from Malappuram district. The sample for the study consisted of

12 AEOs (2 AEOs from each Revenue District.

180 Headmasters/ Headmistresses(15 Headmasters from each sub district)

1260 primary school teachers(210 teachers from each sub district),

The details regarding sample selected for the study are given in the table below.

Table 1.1
Sample selected for the study

District	Subdistrict	Students		Teachers		HMs	PTA & LSG	AEOs
		Class	No of Observation	Observation	Tool			
Kasaragod	1	2	1	4	15	15	1 + 1	1
		4	1	4	15			
		7	1	5	75			
	2	2	1	4	15	15	1 + 1	1
		4	1	4	15			
		7	1	5	75			
Malappuram	1	2	1	4	15	15	1 + 1	1
		4	1	4	15			
		7	1	5	75			
	2	2	1	4	15	15	1 + 1	1
		4	1	4	15			
		7	1	5	75			
Palakkad	1	2	1	4	15	15	1 + 1	1
		4	1	4	15			
		7	1	5	75			
	2	2	1	4	15	15	1 + 1	1
		4	1	4	15			
		7	1	5	75			
Ernakulam	1	2	1	4	15	15	1 + 1	1
		4	1	4	15			
		7	1	5	75			
	2	2	1	4	15	15	1 + 1	1
		4	1	4	15			
		7	1	5	75			
Idukki	1	2	1	4	15	15	1 + 1	1
		4	1	4	15			
		7	1	5	75			
	2	2	1	4	15	15	1 + 1	1
		4	1	4	15			
		7	1	5	75			
Trivandrum	1	2	1	4	15	15	1 + 1	1
		4	1	4	15			
		7	1	5	75			
	2	2	1	4	15	15	1 + 1	1
		4	1	4	15			
		7	1	5	75			
Total	12		36	156	1260	180	12 + 12	12

Tools and techniques used for the Study:

The major tools and techniques used for the study were:

- 1. Questionnaire for teachers (General as well as specific questionnaire for teachers)**
- 2. Questionnaire for head teachers**
- 3. Answer sheet analysis – Error analysis**
- 4. Text book analysis (Integration, English and Mathematics of Standard II)**
- 5. Class Observation Schedule**
- 6. Group discussion schedule for Students, AEO and PTA**

Description of the tools and Techniques

1. Questionnaire for teachers

General as well as specific questionnaires were given to primary school teachers of standard II, IV and VII. The questionnaires contain both closed and open ended questions. The questionnaires are used to collect views and suggestions of teachers regarding assessment of Revised Kerala curriculum (Malayalam, English, Basic science, Social science and mathematics of standard IV, Malayalam, English, Environmental science and mathematics of standard IV and II) with respect to its Learning Outcomes, Learning Resources, Learning Process, Support System and Evaluation. Moreover, the practical difficulties encountered by teachers in implementing the revised curriculum and their suggestions regarding different measures for making further revision of the curriculum more effective were also collected by using the questionnaire for teachers.

2. Questionnaire for Head Teachers

A questionnaire was prepared to collect data from Head teachers to assess the different aspects of revised curriculum such as learning outcomes, learning resources, learning process, support system and evaluation. The questionnaire include questions related to whether they are checking the teaching manual of teachers, what are the difficulties they are experiencing in giving supports to different areas of Art, Sports-Health and work experience, whether they are getting support from different agencies such as SMC/PTA, MPTA, LSG, ALUMNI. etc., whether the teachers are sharing the experiences they gained during different training, what are the measures they are taken to provide support to backward and gifted students, what are the different community activities conducted in school to improve teaching and learning.

3. Text book analysis (English, Malayalam, Basic Science, Social Science and Mathematics of Standard II, IV and VII)

Text book analysis was done to find out whether the text books (English, Malayalam, Basic Science, Social Science and Mathematics of Standard II, IV and VII) are in conformation with the constructivist paradigm, suitability of its content in attaining learning outcomes, suitability of the content for activity based learning, whether the books contain diversity of learning activities, use child friendly language, have clarity in pictures, graphs and maps, slots for continuous evaluation, instances of disparity and what are the different areas which need further simplification explanation.

4. Class observation schedule

The present study designed observation schedule as an analytical device to observe and gather factual information regarding the performance of teachers with regard to the components such as Teaching Manual preparation, pre –planning, interest and motivation, learning activities, learning environment, classroom intervention, evaluation and consolidation.

5. Focus Group Discussion

An FGD guide is prepared carefully in advance through identifying the main objective(s) of the meeting, developing key questions, developing an agenda, and planning how to record the session. A detailed report is prepared after the session is finished. Observations during the session were noted and included in the report.

Data Collection Procedure

Data collection was done by a group of six members in each education sub-districts under the leadership of concerned AEOs and faculty members of DIET. A one day workshop was conducted in the SCERT to the members of data collection for familiarising the tools.

A one day meeting of HMs of 15 schools was conducted by AEO for collecting data from HMs using the questionnaire. For the collection of data from other sources a team was constituted. The team consists of practising teachers in the subjects of Malayalam, English, Science, Social Science and Mathematics including AEO and DIET faculty members. They visited the various schools for collecting data from the teachers, conducted group discussion with PTA/LSG and observed the classrooms.

Questionnaire for teachers and HMs, were administered in 12 subdistricts of six Revenue districts(Thiruvananthapuram, Idukki, Palakkadu, Ernakulam, Malappuaram, and Kannur) and their responses were collected back. The data thus obtained were scrutinised and only those found complete and correct with respect of all the necessary information above were chosen for analysis.

A series of workshops were conducted for analysing data, tabulation of data and report writing.

Statistical Techniques Used

The statistical technique used for the analysis of data was Percentage Analysis

Chapter - 2

Analysis and Interpretation of Data

The data collected from upper primary school teachers of standard 7 on the subjects Malayalam, English, Science, Social Science and mathematics with respect to five major dimensions of curriculum, i.e., Learning outcome, Learning resources and materials, Learning Process, Evaluation system and Teacher support mechanisms are analyzed and the results are given below:

II A. MALAYALAM

I. LEARNING OUTCOME

The responses of teachers regarding learning outcomes envisaged in text book were analyzed and the results are given under various headings.

Clarity of the features of the learning outcomes envisaged in the curriculum 2013

The teachers were asked to mark their opinion regarding the clarity of different features of the learning outcomes envisaged in the curriculum 2013. The responses obtained from teachers were tabulated and analyzed. The result showing the per cent of teachers who have and do not have clear idea regarding the different features of the learning outcomes envisaged in Curriculum 2013 are given in Table 1.1

Table 1.1

Clarity of the features of the learning outcomes

Aspect	Response in percentage	
	Yes	No
Clarity of the features of the learning outcomes envisaged by curriculum 2013	94.19	5.81

From Table 1.1, it is observed that majority of teachers (94.19%) have a clear idea regarding the characteristic features of the learning outcomes envisaged in the curriculum 2013. But 5.81% of teachers opined that they don't have the clear idea of the characteristic features of the learning outcomes envisaged in the curriculum 2013.

The areas which they need more clarity regarding characteristic features of the learning outcomes envisaged in the curriculum 2013 are mentioned below:

- Those acquired by learners through subject-specific learning
- That can be observed and measured
- That can be achieved in short term and long term

- Process oriented learning outcomes
- Outcomes which develop values and attitudes and social commitment
- Outcomes which can be developed through collaborative learning

Therefore it can be inferred that majority (94.19%) of teachers have clear idea regarding the characteristic features of the learning outcomes envisaged in the curriculum 2013. The remaining teachers (5.81%) need more clarity regarding the features of learning outcome like short term and long term outcomes, inclusive education, problem solving skill and values, attitudes, and social commitment.

Ensuring the attainment of expected learning outcomes

The teachers were asked to mark their opinion regarding the ensuring of attainment of expected learning outcomes through the transaction of content. The responses obtained from teachers were tabulated and analyzed. The result showing the per cent of teachers who ensure and do not ensure the attainment of expected learning outcomes through the transaction of the content are given in Table. 1.2

Table: 1.2

Ensuring the attainment of expected learning outcomes

Statements	Response in percentage	
	Yes	No
Ensuring the attainment of the expected learning outcomes.	29.68	70.32

Majority of teachers (70.32%) opined that they couldn't ensure that all learners achieved the expected learning outcomes to be attained through the transaction of the content. Only 29.68 % of teachers could ensure that all learners achieved the expected learning outcomes through the transaction of the content.

Measures adopted

Among the teachers who couldn't ensure the attainment of expected learning outcomes in all learners through the transaction of the content suggested different measures to be practiced and included in the textbook of class VII. Measures suggested by teachers are:

- Learning outcomes achieved through subject wise learning.
- Process oriented learning outcomes
- Content that develops values, attitudes and social commitment
- Provide value based education
- Ensure individualized learning

- Ensure Continuous evaluation
- Provision for ICT learning
- Practice Collaborative learning
- Peer tutoring
- Through extended activities
- Through special training

It is found that 70.32% of Teachers opined that they couldn't ensure the expected learning outcomes in all the learners through the transaction of the content. Teachers adopt various teaching learning methods like peer tutoring, group work, use of Information Technology, local text, etc. for achieving the learning outcomes.

Differentiating short term and long term learning outcomes

The teachers were asked whether they could differentiate the short term and long term learning outcomes imbibed in textbook. The responses given by the teachers are collected and analyzed. The result obtained is given in Table 1.3

Table 1.3

Differentiating short term and long term learning outcomes

Statement	Response in percentage		
	To a great extent	To some extent	Not at all
Differentiate short term and long term learning outcomes	32.90	64.54	2.58

From Table 2.3, it is clear that majority (64.54%) of teachers could differentiate short term learning outcomes from long term learning outcomes only to some extent. Among the teachers 2.58% couldn't differentiate the short term and long term learning outcomes. Only 32.90% of teachers could differentiate short term and long term learning outcomes to a great extent.

Therefore it is inferred that 64.54% of teachers are able to differentiate short term and long term learning outcomes only to some extent level.

Spiraling of learning outcomes to ensure continuity and growth

The teachers were asked whether the learning outcomes are arranged in such a way to ensure the continuity and development of it from the lower to higher classes. The result collected and analyzed is given in Table 1.4

Table 1.4

Spiraling of learning outcomes to ensure continuity and growth

Statements	Response in percentage	
	Yes	No
Spiraling of learning outcomes to ensure the continuity and development of it from the lower to higher classes	93.55	6.45

From the Table 1.4, it is clear that a great majority (93.55%) of teachers agreed that the spiralling of learning outcomes is ensured in the continuity and development of it from lower to higher classes.

The teachers who opined that the learning outcomes are not arranged in such a way as to ensure the continuity and development of it from lower to higher classes suggested to

- Ensure spiraling of learning outcome
- The text book of classes from 1-7 should be prepared by the same group of teachers to ensure spiraling.

Thus it can be inferred that a great majority of teachers opined that spiralling of learning outcomes are ensured so as to ensure the continuity and development from lower to higher classes. The teachers who opined that the spiralling is not done suggest to include the same group of teachers in preparing the textbooks from class I to VII to ensure spiralling.

Observable and measurable learning outcomes given in different units

Teachers were asked whether the learning outcomes given in different units are observable and measurable. The teachers responded to the question and it was collected and analysed. The per cent of teachers who responded to this question is recorded in Table1.5.

Table1.5

Observable and measurable learning outcomes given in different units

Statement	Response in percentage	
	Yes	No
Observable and measurable learning outcomes	92.26	7.74

The Table shows that a great majority (92.26%) of teachers opined that the outcomes given in different units are observable and measurable. Minor percentage (7.74) of teachers opined that the learning outcomes given in different units are not observable and measurable.

Most of the teachers are of the opinion that the learning outcomes given in different units are observable and measurable.

Acquisition of ideas/ skills from each unit through the learning outcomes

The teachers were asked whether they could understand the ideas/ skills to be acquired from each unit through the learning outcomes. The responses collected and analysed are recorded in table 1.6.

Table 1.6

Acquisition of ideas/ skills from each unit through the learning outcomes

Statement	Response in percentage		
	To a great extent	To some extent	Not at all
Understanding the ideas/ skills to be acquired from each unit through the learning outcomes.	65.16	32.90	1.94

As per the Table, majority (65.16%) of teachers responded that they could understand the ideas/skills to be acquired from each unit of text book through learning outcomes to a great extent. 32.90% responded that they could understand the ideas/ skills to be acquired only to some extent. About 1.94% of teachers opined that they not at all understand the ideas/ skills to be acquired from each unit of text book through the learning outcomes.

It is noteworthy that about 35% of teachers are able to understand the ideas/skills to be acquired from each unit through the learning outcomes only to some extent level.

Learning outcomes according to the age-level of learners

The teachers were asked to opine whether the learning outcomes are given according to the age- level of the learners. The responses obtained from teachers were tabulated and analyzed. The result showing the per cent of teachers who responded are given in Table 1.7.

Table 1.7

Learning outcomes according to the age-level of learners

Statements	Responses in percentage		
	To a great extent	To some extent	Not at all
Learning outcomes are given according to the age-level of the learners.	50.97	46.45	2.58

The Table 1.7 shows that more than fifty percentage (50.97) of teachers opined that learning outcomes are age specific to a great extent level while 46.45% of teachers

responded that learning outcomes are age specific only to some extent level. 2.58% of teachers opined that the learning outcomes are not at all age specific..

It can be concluded that about half of the teachers opined that the learning outcomes given in different units of textbooks of class VII are according to the age level of learners only to some extent level.

Learning outcomes helpful for self-evaluation

The teachers were asked to respond whether the learning outcomes imbibed in textbook are helpful for self-evaluation. The responses obtained were tabulated and analyzed. The result showing the per cent of teachers who responded are given in Table 1.8.

Table1.8

Learning outcomes helpful for self-evaluation

Statement	Response in percentage		
	To a great extent	To some extent	Not at all
Learning outcomes are helpful for self-evaluation.	40.65	57.42	1.94

Table1.8 shows that 57.42% of teachers opined that learning outcomes are helpful only to some extent for self-evaluation. 1.94% of teachers opined that the learning outcomes are not at all helpful for self- evaluation. Only 40.65% of teachers opined that the learning outcomes are helpful for self- evaluation to a great extent.

It is noteworthy that more than half (57.42%) of teachers have the opinion that the learning outcomes are helpful for self-evaluation only to some extent level.

Time bound completion of learning outcomes

The responses regarding the possibility of time bound completion of the learning outcomes are tabulated and analyzed. The percentage of responses is given in Table1.9.

Table1.9

Time bound completion of learning outcomes

Statements	Response in percentage	
	Yes	No
Time bound completion of the given learning outcomes is possible	47.10	52.90

From Table1.9, it is found that 52.90% of teachers reported that the time bound completion of learning outcome is not possible in the case of Malayalam text books of class VII. Only

47.10% of teachers agreed that time bound completion of learning outcomes is possible in Malayalam.

Reasons for inability to complete learning outcomes

The teachers opined that they could not complete the given learning outcome in time due to the following reasons.

- Lack of time
- Excess content
- Content depth
- Shortage of working days
- Presence of differently abled students

It should be specially noted that more than half of the teachers (52.90%) opined that the time bound completion of learning outcomes given in Malayalam textbook of class VII is not possible. Among them majority opined that this is due to the lack of sufficient time, excess content and the depth of the content.

Outcome focused methodology to ensure the level of learning proposed by RTE

The teachers were asked to record their opinion whether the outcome focused methodology is helpful in ensuring the attainment of level of learning envisaged by RTE. The responses tabulated and analysed is given in Table 1.10.

Table 1.10

Outcome focused methodology to ensure the level of learning proposed by RTE

Statements	Response in percentage	
	Yes	No
Outcome focused methodology helpful in ensuring the attainment of level of learning proposed by RTE	88.39	11.61

Table 1.10 shows that a great majority of teachers (88.39%) opined that the outcome focused methodology is helpful in ensuring the level of learning envisaged by RTE. A minor group (11.61%) opined that outcome focused methodology is not helpful in ensuring the level of learning envisaged by RTE.

Though majority of teachers (88.39%) opined that outcome focused methodology is helpful in ensuring the level of learning envisaged by RTE, it is noteworthy that about 12% of teachers have the opinion that the outcome focused methodology is not helpful in ensuring the level of learning envisaged by RTE.

II. LEARNING RESOURCES

The responses of Teachers regarding learning resources in Malayalam text book of standard VII were analyzed and the results are given under various subheadings.

Features of Malayalam Textbook

The teachers were asked to mark their opinion regarding different features of the textbook. The responses obtained from teachers were tabulated and analysed. The result showing the per cent of teachers agreed or disagreed to different features of text book are given in Table1. 11

Table 1.11
Features of Malayalam Textbook

Statements	Response in percentage	
	Agree	Disagree
Content appropriate to the level of learner	72.26	27.74
Conceptual clarity	87.10	13.28
Adequate activities are given in the text book to achieve the learning out comes	89.03	10.97
Language appropriate to the level of learners	65.81	34.19
Pictures, lay-out, etc., arouse interest in the learners	78.06	21.94
Activities considering different level of learners	47.74	52.26
Adequate follow up activities are mentioned	89.68	10.32
Opportunity to foster the creativity of learners	90.97	9.03
Units are framed considering the possibilities of varied learning strategies	93.55	6.45
Concepts are arranged spirally	89.68	10.32
Slots for ICT are given for effective learning	89.68	10.32
Adequate activities are given in appropriate situations to enhance values and attitudes in learners	93.55	6.45

From the Table1.11 it is found that a great majority of teachers (greater than 90%) reported that the text book provides opportunity to foster creativity of learners, lessons are framed considering varied learning strategies and opportunity for the learners to enhance their creativity and the activities given in the text book are adequate to enhance values and attitudes in learners.

Majority of teachers (70-89%) agreed that slots for using ICT are given for effective learning, learning materials are arranged in a spiralling manner, specifications for required extended activities, the learning activities given in the Text book are appropriate to achieve the learning outcomes, clarity of lessons, suitability of pictures and lay out to arouse interest in the learners and content appropriate to the level of the learners.

About 65.81% of teachers opined that language in the text book is appropriate while almost equal percentage of teachers (about 47%) agreed and disagreed that activities considering the different level of learners are present in Malayalam text book.

Even though majority of teachers favour the most of the characteristics of the Malayalam textbook, 52.26% of teachers opined that those activities considering different levels of students are not present in the text book.

Analysis regarding the Text book of standard 7 Malayalam and suggestions of the teachers

The teachers were asked to note down the difficulties experienced by them in the various areas related to text book which are mentioned above. The difficulties noted by them are listed below.

The teachers are not agreeing with the learning activities given in the textbook for differently abled students. The difficulties reported are lack of activities for inclusive learning and lack of appropriate learning activities.

Most of the teachers do not agree that the language used in the TB is up to the level of the standard 7 students. The reasons reported are difficult vocabulary which leads to lack of interest in reading and lack of previous knowledge.

In the area appropriateness of the content for the intellectual level of the students, most of the teachers disagreed. The reason stated is the content is above the level of the students of standard 7.

Most of the teachers disagree that the layout and the pictures of the TB are attractive for the learners. The reasons highlighted are lack of clarity and blurred pictures.

A few teachers disagree that there is clarity in the content of the TB. The reasons are difference in grasping the content properly, difficult vocabulary and language and ambiguity in the content.

A few teachers disagree that there are sufficient learning activities for the attainment of learning outcomes. The reason pointed is some of the learning activities do not focus the desired outcome.

Some of the teachers could not agree that hints/links are provided for effective ICT enabled learning. The reasons provided are links/hints in the TB are not accessible, suitable and appropriate.

A few teachers do not agree that there are ample opportunities for promoting creativity among students. The reason is lack of extended activities for enhancing creativity.

Some of teachers are against the idea that sufficient number of extended activities is included in the text.

A few teachers disagree that the learning resources are arranged in a spiralling manner. The reasons pointed are the standard of the text activities in the first few units are above the standard of students and lack of previous knowledge.

Some of the teachers disagree that the possibilities of various learning strategies are considered in the textbook. The reasons are lack of opportunity for field trip and lack of local resources like library, expert session, etc.

A few teachers could not agree that sufficient activities to promote values and attitudes are given in appropriate situation. The reasons are: the activities provided in textbook are from surrounding which the teachers are not familiar with and lack of activities which cater the heterogeneous group of learners.

Even though majority of teachers favours the most of the characteristics of the Malayalam textbook, 52.26% of teachers opined that those activities considering different levels of students are not present in the Malayalam text book. The difficulties noted by them are lack of activities for inclusive learning, difficult vocabulary which leads to lack of interest in reading, ambiguity in the content, links/hints in the TB are not accessible, suitable and appropriate, lack of local resources like library, expert session and the activities provided in textbook are from surrounding which the teachers are not familiar with.

Features of Teacher Text

The teachers were asked to mark their responses regarding different features of the Malayalam teacher text. The responses obtained from teachers were tabulated and analysed and given in Table 1.12.

Table1.12
Features of Teacher Text

Statements	Response in percentage	
	Yes	No
Text book and the teacher text are complementary to each other	93.55	6.45
Given hints are suitable for transacting lessons	87.10	12.90
Helpful in preparing TM	89.03	10.97
Instructions are given for CE and TE	86.45	13.55
Suitable additional information is provided for the transaction of the lesson	90.32	9.68
Suitable tools for evaluation are provided	94.84	5.16
The reference books and sites referred in the T.T are helpful for the teachers for the conceptual transaction of the lessons.	84.52	15.48
The division of periods for each units is suitable for its transaction	46.45	53.55
Gives clear cut idea about the right based education envisaged by RTE act	95.48	4.52
Helps the teacher in attaining clarity in the general approach of the curriculum	99.35	0.65
It provides clarity in moral and professional ethics to be practiced by the teachers	98.06	1.94

Table1.12 revealed that a great majority of teachers (greater than 90%) reported that the teacher text helps the teacher in getting idea about the general approach of the curriculum, gives clarity in professional ethics to be practiced by the teachers, gives clear cut idea about the right based education as the part of the RTE act, Suitable tools for evaluation is given and Text book and the teacher text are complementary to each other and suitable additional information is given in teacher text.

Majority of teachers (70-89%) agreed with Helpful in preparing TM, hints given for the transaction of the units are suitable, proper instructions are given for CE and TE, the reference books and sites referred in the T.T are helpful for the teachers for the conceptual transaction of the lessons,

It is noteworthy that 46.45% of teachers opined that the division of periods given based on the units is not appropriate for the transaction.

Responses of teachers for not agreeing with the teacher text

Most of the teachers disagree that the periods allotted for each unit are sufficient for the transaction of lessons. The reasons are overcrowded classrooms, excessive number of activities and lack of time for processing discourses.

A few teachers disagree that the given hints are helpful for the transaction of TB. The reasons are text related hints are not clear, lack of conceptual clarity in teacher text and lack of explanation for certain areas in the text book.

A few teachers could not agree that the hints given in the TT regarding the reference books and sites are helpful to the teachers in the transaction of TB. The reasons are lack of reference books suggested in the teacher text, lack of facility for visiting sites and lack of available of reference books.

A few teachers do not agree that proper instructions are given for CE and TE in the TT. The reasons given here are lack of proper training/awareness in CE, lack of time for recording CE, lack of proper instructions for CE related to each discourse and ambiguity in CE and TE.

Some of the teachers do not agree that TT is resourceful for the preparation of TM. The reasons are lack of additional resources, lack of sample teaching normal and lack of instructions for the preparation a TM

A few teachers do not agree the teacher text and TB are complementary. The reasons pointed are lack of details in TT, lack of clarification of hard spots and lack of link talks and discussion points.

Some teachers disagree that additional information given for better transaction of TB is sufficient. The reasons stated are clarification regarding the cultural and historical backgrounds of the literary pieces provided in the TB is not given in TT.

Some teachers could not agree that appropriate evaluation tools are provided in the TT. The reason is appropriate evaluation tools are not incorporated in TT. Very few teachers disagree that there is clarity in Right based education envisaged by RTE in TT.

From the results it can be inferred that, even though majority of teachers supports the teacher text of Malayalam in many aspects, around half of the (53.55s%) teachers reported that the division of periods given in teacher text is not suitable for its transaction. The reasons are overcrowded classrooms, excessive number of activities, lack of conceptual clarity in TT, lack of reference books suggested in the TT, lack of facility for visiting sites, lack of proper training/awareness in CE, lack of additional resources, clarification regarding the cultural and historical backgrounds of the literary pieces

provided in the TB is not given in TT and appropriate evaluation tools are not incorporated in TT.

Facilities available in the school

The teachers were asked to mark their responses regarding facilities in the schools. The responses obtained from teachers were tabulated and analysed and given in Table 1.13

Table 1.13

Facilities available in the school

Facilities	Response in percentage
a. Science lab	93.55
b. ICT	89.68
c. Science club	94.19
d. Science corner	65.81
e. Reading corner	90.97
f. Mathematics lab	74.19
g. Display board	76.77
h. Mathematics club	92.26
i. Mathematics corner	58.06
j. Social science lab	69.03
k. Language lab	87.74
l. Social science club	89.68
m. Social science corner	56.13

From Table 1.13, it is found that majority of the schools (74%-94%) are equipped Mathematics club, Science, Display boards, Language Lab, Social Science club, and ICT facilities as per the opinion of the teachers. At the same time, only 50-60% of the schools are equipped with Social Science corner, Mathematics corner, and Science corner

It can be inferred that the facilities pointed out by great majority of teachers (74-94%) are reading corner, Mathematics club, Science club, Science lab, Display boards, Language Lab, Social Science club, and ICT facilities. The facilities such as Social Science corner, Mathematics corner and Science corner are reported only by below 60 % of the teachers.

Emphasis of facilities given in the content of the lesson in TB

The responses of teachers regarding the emphasis given to facilities in the content of the lesson in Textbook were analysed and the details are given in Table 1.14

Table 1.14**Emphasis of facilities given in the content of the lesson in TextBook**

Facilities	Response in percentage		
	To a Great extent	To Some extent	Not at all
Lab	57.74	37.74	4.52
Library	67.1	32.90	0.00
ICT	69.03	30.32	0.65
Display board	60.32	35.81	3.87
Periodicals	54.83	44.52	0.65
Club	60.1	38.61	1.29
Corner	54.51	44.84	0.65

Table1.14 revealed that above 60% of teachers reported that the content in the Malayalam text book has given importance to great extent level to utilise ICT, library, display board and club while above 30% opined to some extent to these facilities. Above 50% of teachers reported that content in the text book has given importance to great extent to make use of lab, periodicals and corner while above 37% of teachers opined to some extent level.

Majority of teachers opined that the Malayalam text books of standard VII give due importance to the using of facilities like lab, library, ICT, display boards, Periodicals, club activities and reading corners.

Necessary instructions to utilize facilities

The responses of teachers regarding the necessary instructions to utilise the facilities were analysed and the details are given in Table1.15.

Table1.15**Necessary instructions to utilize facilities**

Facilities	Response in percentage		
	To a great extent	To some extent	Not at all
Lab	50.97	45.16	3.87
Library	67.10	30	1.96
ICT	68.71	29.35	1.94
Display board	48.38	47.10	4.52
Periodicals	50.23	49.77	0.00
Club	49.67	48.39	1.94
Corner	43.87	54.84	1.29

Table1.15 revealed that more than 60% of teachers reported that suitable instructions are given in the Teacher Text of Malayalam to make use of ICT and library to a great level

while about 30% opined that there are provisions for making use of these to some extent level. More than 50% of teachers reported that suitable instructions are given in Teacher Text to make use of lab and magazines to a great level whereas above 45% of teachers reported to some extent level. Above 40% of teachers reported that suitable instructions are given in Teacher Text to make use of periodicals club, display board and corner to great extent level as well as some extent level.

Utilisation of facilities in learning activities

The responses of teachers regarding the utilisation of facilities available in the school are analysed and the details are provided in table 1.16.

Table1.16

Utilisation of facilities in learning activities

Facilities	Response in percentage		
	To a Great extent	To Some extent	Not at all
Lab	47.41	50.65	1.94
Library	64.51	34.84	0.65
ICT	60	39.35	0.65
Display board	41.94	54.83	3.23
Periodicals	55.48	43.23	1.29
Club	63.87	35.48	0.65
Corner	48.71	50	1.29

Table1.16 revealed that more than 60% of teachers reported that the following facilities can be used for providing learning activities to great extent level: Library (64.51%) Club (63.87%) ICT (60%). More than 50% of teachers opined that they make use of magazines (55.48%) for providing learning activities to a great extent level. More than 30% of teachers reported that they use these things to some extent level only.

Above 40% of teachers opined that the facilities such as corner (48.39%) lab (47.41%) and display board (41.94%) are used to a great extent level for providing learning activities. More than 50% of teachers reported that they make use of lab (50.65%), display board (54.83%) and corner (50%) to some extent level.

Analysis regarding the limitations of the facilities available in the schools and suggestion for betterment of the same

The teachers who opined that the facilities are used only to some extent pointed out some limitations regarding each of the facilities and some suggestions to overcome it.

Regarding the limitation of Lab most of the teachers opined that the labs doesn't have adequate facilities, equipment, fund, shelves, time and teachers.

The suggestions put forward by the teachers to improve the lab facilities are: provide more equipment, provide financial aid and more facilities and provide subject related CD's and training for making use of the facilities of the lab.

Regarding the limitations of library, teachers reported that there are no sufficient subject related reference books, library is not equipped with proper facilities like shelves, space for reading, librarian, lack contemporary literary pieces, no separate room for library and lack of financial aid for the purchase of books and other equipment.

Most of the teachers suggested that they need more reference books, contemporary literary library pieces, need modern facilities and financial aid for improving library facilities. A few teachers requested for separate room for library and consider aided schools also for the financial aid from the part of the govt., SSA, RMSA.

Regarding the use of ICT, the limitations pointed out are: lack of sufficient computers, overcrowded classroom, lack of subject related CDs, lack of proper training for handling ICT, lack of internet and projector and lack of separate room for ICT. Suggestions provided by the teachers are provide computers for both UP and HS, aid for buying computers, separate smart classroom as well as ICT enabled classrooms, equip them with adequate ICT training and provide with subject related CD's and projections.

Regarding the use of display board, limitations pointed out by teachers are: lack of display boards and display boards are damaged and not replaced.

Suggestions provided by teachers are: to provide display board and to provide financial aid to buy display board.

Considering the availability of magazines in schools the limitations noted by the teachers are: need of subject specific magazines and publications, need financial aid for buying magazines and provide free periodicals to all govt./aided school.

Regarding the functioning of club the limitations noted by teachers are: lack of time, lack of separate room and space for club and lack of proper training to create awareness among the teachers. Suggestions pointed out by the teachers are: allot separate period for club activities and reduce the content and activities in the TB to make the club activities more effective.

While analysing the limitations of the reading corner in school, the teachers opined that the schools don't have enough space to function reading corner and lack of sufficient books and furniture

From this it can be inferred that the facilities such as lab, library, ICT, display board, periodicals, club and corner are used in schools to some extent for providing learning activities to students. The limitations pointed out by the teachers are: inadequate facilities, insufficient furniture, and lack of reference books, lack of librarians, lack of time to conduct club activities, insufficient space to arrange corners and lack of awareness in teachers. The notable suggestions given by them are: allotting separate period for club activities, providing computers for both UP and HS, allotting separates room for library, and providing modern facilities.

Resources other than the text book and the teacher text for ensuring learning outcomes

The teachers were asked to mark their responses regarding resources other than the textbook and the teacher text for ensuring learning by putting tick marks. The responses obtained from Teachers were tabulated and analysed. The result showing the percent of teachers responses on resources other than the textbook and the teacher text for ensuring learning outcomes are given in Table 1.17

Table 1.17

Resources other than the text book and the teacher text for ensuring learning outcomes

Materials	Response in percentage
a. Reading materials prepared by the teacher	96.13
b. Local resources	80.65
c. Resource CD (video, audio)	92.26
d. Pictures	98.71
e. Tables	77.42
f. Diagrams	41.29
g. Reports	75.48
h. Worksheets	80.00
i. Materials given by local government and other agencies	50.97
j. Others (specify)	12.90

From the table1.17 it is found that a great majority of teachers reported that they use pictures (98.71%) , reading materials prepared by teachers(96.13%), resource CD (video, audio), (92.26%)other than TB and TT.

Majority of teachers (70%-89%) reported that they are using, work sheets (80%) local resources (80.65%), and tables (77.42%) and reports (75.48%). Diagrams are used by 41.29% of teachers, and materials given by local government and other agencies by 50.97%.

From the analysis it can be inferred that a number of materials other than TT and TB are used by teachers for teaching and learning. Most of the teachers opined that they are using magazines, field trips, paper cutting, gifts for encouragements and daily news quiz.

Adaptation for CWSN

Teachers were asked to respond which of the following like TB,TT etc. help them to adapt for CWSN. The responses of teachers were collected and tabulated and presented in Table 1.18.

Table 1.18

Adaptation for CWSN students

Materials	Response in percentage
a. Text book	63.87
b. Teacher text	65.16
c. Infrastructure	50.32
d. Resource teachers	70.97

It is found from table 1.18,that majority of teachers reported that resource teachers(70.97%) help them in the adaptation for the CWSN and the same by text book(63.87%), teacher text(65.16%) and infrastructure(50.32%).

From this it can be inferred that resource teachers mainly provide help in the adaptation of CWSN.

Teaching learning resources in the area of arts, sports, health, work experience

The responses regarding teaching learning resources in the area of art-sports-health-work experience were collected and analyzed. The details of analysis are given in Tables 1.19,1.20 and 1.21 respectively

Table1.19

Teaching learning resources in the area of Arts

Statements	Response in percentage		
	To a Great extent	To Some extent	Not at all
Suitable situations for transaction are given in the textbook	51.61	47.10	1.29
Instructions are there to frame necessary resources in the TT of different subjects	60	40.00	0.00
The school is well equipped to carry out these activities	19.36	66.45	14.19
Able to make available local resources in these areas	24.52	62.58	12.90
Able to make use of teacher text for these areas	48.39	50.32	1.29
Able to make use of activity books	49.67	44.52	5.81

Based on the table 1.19 about 60% of teachers reported that instructions for framing necessary resources for art education are: there in TeacherText to a great extent level while 47.10% to some extent level. It is found that 51.61% of teachers opined that in the Malayalam text book there are slots appropriate for conceptual transaction for Art education to great extent dimension while 47.10% teachers opined to some extent level. Above 62% of teachers opined that suitable tools and materials are in the schools for the given area and local resources could be made available in this area to some extent level whereas above 19% of teachers opined to great extent level. It is significant to note that about 14% of teachers reported that suitable tools and materials are not present in the schools for the given area and local resources are not at all available in the school. It is also found that 50.32% of teachers opined that Teacher Text for this area is effectively used in schools to some extent level whereas, 48.39% of teachers opined to great extent level. About 49.67% of teachers opined that activity books are used effectively to great extent level 44.52% to some extent level.

Analysis regarding the limitations and suggestions for improvement in the area Art

A great majority teachers are of the opinion that there no special teachers to deal with art. The other limitations suggested are: lack of training, lack of time, lack of financial aid, lack of materials and opposition from certain religions section. A great majority of teachers suggested appointing specialized teachers for art provide support from LSG and conducting training programs to equip them to handle art classes.

It can be inferred that teaching learning resources in the area of art are present in the TT only to some extent level. They opined that this is due to lack of training, time, financial aid and materials. They suggested appointment of specialized teacher for teaching art education in schools and rendering help from local bodies to overcome these limitations.

Table 1.20

Teaching learning resources in the area of Sports and Health Education

Statements	Responses in percentage		
	To a Great extent	To Some extent	Not at all
Suitable situations for transaction are given in the textbook	36.13	58.06	5.81
Instructions are there to frame necessary resources in the TT of different subjects	42.97	50.58	6.45
The school is well equipped to carry out these activities	31.62	58.06	10.32
Able to make available local resources in these areas	24.42	60.74	14.84
Able to make use of teacher text for these areas	39.03	55.16	5.81
Able to make use of activity books	45.48	49.36	5.16

Based on the table 1.20 it is found that 60.74% of teachers opined that local resources are available for the effective transaction of sports and games to a some extent level while 24.42% of teachers reported it to great extent level. About 58.06% of teachers opined that that slots appropriate for conceptual transaction and suitable materials for it are provided in the TT for Sports and Health to some extent dimension while above 30% teachers opined to great extent level. About 50.58% of teachers reported that instructions for framing necessary resources for Sports and Health are there in TT to some extent level and 42.97% of teachers to great extent level. Only 31.62% teachers opined that suitable materials related to Sports and Health are available in the school to great extent while 58.06% reported that to some extent. About 24.42% reported that resources are available to a great extent level while 60.74% reported it to some extent level. Very few (above 14%) reported that suitable materials related to sports and health and local resources are not at all available in their schools. About 55.16% of teachers reported that they make use of TT for the area to some extent level while about 39.03% to great extent level. About 49.36% of teachers reported that they make use of activity book to some extent level whereas 45.48% teachers opined to great extent level.

Analysis of limitations and qualitative suggestions teachers have made about Sports and health education

With regard to sports, majority of teachers reported that there are no physical education teachers to handle sports and health education, lack of sports equipment, lack of playground, lack of fund and lack of time.

Suggestions put forward by the teachers to solve these limitations are :appointing physical education teachers at the earliest and financial aid by the local self-government.

Regarding the analysis of health education most of the teachers opined that there are no specialized teachers to handle the area of health education, lack of training to teachers to handle health education and lack of awareness regarding health education. Providing nurses/health worker in school,providing training and awareness classes to all teachers and giving training to teachers in yoga classes are the suggestions made by them.

It can be inferred that teaching learning resources in the area of sports and health are present in the TT only to some extent level. The limitations pointed out are: lack of sufficient sports equipment, playground, fund and time. The teachers suggested appointing physical education teachers, providing the service of health worker in school and giving training to teachers to handle health education classes in schools.

Table 1.21

Teaching learning resources in the area of Work Experience

Statements	Response in percentage		
	To a Great extent	To Some extent	Not at all
• Suitable situations for transaction are given in the textbook	31.16	63.68	5.16
• Instructions are there to frame necessary resources in the TT of different subjects	39.03	53.23	7.74
• The school is well equipped to carry out these activities	26.45	57.42	16.13
• Able to make available local resources in these areas	25.16	56.13	18.71
• Able to make use of teacher text for these areas	37.10	59.03	3.87
• Able to make use of activity books	43.55	50.64	5.81

Based on the Table 1.21 it is found that 63.68% of teachers opined that slots appropriate for conceptual transaction are provided in the TT for Work experience to some extent dimension while 31.16% teachers opined to great extent level. As to about 53.23% of teachers reported that instructions for framing necessary resources for Work experience are there in TT to some extent level and 39.03% of teachers to some extent level. Only 26.45% teachers opined that suitable materials related to Work experience are available in the school to great extent while 57.42% reported that to some extent. About 25.16% reported that resources are available to a great extent level while 56.13% reported it to some extent level. Very few (above 16%) reported that suitable materials related to Work experience and local resources are not at all available in their schools. About 59.03% of teachers reported that they make use of TT for the area to some extent level while about 37.10% to great extent level. About 50.64% of teachers reported that they make use of activity book to some extent level whereas 43.55% teachers opined to great extent level.

Analysis of limitations and qualitative suggestions regarding work experience

Teachers reported many limitations in the field of Work Experience in schools. They are: lack of specialized teachers in work experience in schools, raw materials for giving training to learners and lack of time. Suggestions pointed by the teachers are :appointing work experience teachers, allotting fund by the LSG to buy raw materials for work experience and providing training for all teachers.

It can be inferred that teaching learning resources in the area of work experience are present in the TT only to some extent level. The limitations pointed out by the teachers are:

lack of teachers who are specially trained in carrying work education in schools and non-availability of raw materials to give training to learners. Teachers opined that we can overcome this by appointing specialized teacher in work experience and by providing financial aid to schools to buy raw materials.

Details of the products of the learning activities

The responses of teachers regarding the details of the products of the learning activities were analysed and the details are given in Table 1.22

Table 1.22

Details of the products of the learning activities

Items	Response in percentage	
	Yes	No
a. Evaluation of products	98.71	1.29
b. Encourages learners outstanding products	98.06	1.94
c. Utilizing the possibility of reusing products	90.68	9.32
d. Conducts exhibition of learners products	3.87	96.13

Table 1.22 reveals that regarding the products of the learning activities a great majority of teachers (greater than 90%) reported that they evaluated the products, encouraged the learner's outstanding products and utilized the possibility of re-using the products. Only very few (3.37%) of teachers opined that they conducted exhibition of the products. Other than the enlisted items a few teachers reported that they conduct exhibitions at school level, BRC, CRC, level and competition like CRC, BRC, State, Panchayat level, School assembly and cultural programmes.

It is inferred that majority of teachers evaluate the products of learners, encourage learner's outstanding performance and reuse the products in class. It is significant to note that only a few teachers conduct exhibition of learner's products in school assembly, cultural programs, BRC/ CRC level, Panchayat level and state level

III. LEARNING PROCESS

The teachers were asked to mark their responses regarding the various learning processes that take place inside the classrooms. The responses of the Teachers, in this section, for the Quantitative items were recorded as Yes / No, and Always/Sometimes/Not at all. The Qualitative responses were noted and listed and the responses were collected and analyzed. The results are given under appropriate heads.

Difficulty experienced while planning learning activities in the classrooms

The responses obtained from teachers were analyzed and the results showing the percentage of teachers who responded is given in Table 1.23

Table 1.23**Difficulty experienced while planning learning activities**

Statement	Responses in Percentage	
	Yes	No
Difficulty experienced while planning learning activities	69.94	30.06

It is seen from the table that more than two third of teachers (69.94%) of Standard VII reported that they experienced difficulties while planning learning activities whereas only 30.06% mentioned that they did not experience any difficulty.

From this, it can be inferred that *majority of the teachers of Standard VII experienced difficulties while planning learning activities.*

Thrust areas where difficulty is experienced while planning learning activities

The teachers, who indicated that they experienced difficulties while planning the learning activities, were asked to mark their responses regarding the thrust areas where difficulty is experienced while planning learning activities. The responses were analyzed and the results are given in Table 1.24.

Table1.24**Thrust areas where difficulty is experienced while planning learning activities**

Thrust area	Responses in Percentage
a) Learning Outcomes	14.84
b) Integrating arts, sports, health and work experience	54.84
c) Life skills	10.32
d) Utilizing learning resources	9.03
e) Slots for ICT	27.74
f) Community bound activities	23.87
g) Values/attitudes	14.84
h) Learning of the different levels of learners	57.42
i) Continuous evaluation	21.29
j) Areas to develop social commitment	18.06

The thrust areas where the Teachers of Standard VII faced difficulties, in the descending order of magnitude are: ‘learning of the different levels of learners’ (57.42%), ‘integrating arts, sports, health and work experience’ (54.84%), slots for ict (27.74%), community bound activities (23.87%), continuous evaluation (21.29%), areas to develop social commitment (18.06%), learning outcomes (14.84%), values/ attitudes (14.84%), life skills (10.32%) and utilizing learning resources (9.03%).

Therefore it can be inferred that although the teachers experienced difficulty in various thrust areas,

‘Learning of the different levels of learners’, and ‘integrating arts, sports, health and work experience’ are two thrust areas that posed difficulty to majority of teachers while planning the learning activities.

Analysis bases on the remedial measures suggested by the teachers to overcome difficulties experienced by them in the various areas

The suggestions regarding the remedial measures to overcome these difficulties are listed under appropriate heads. They are :learning outcomes should be more clear and simple, ensuring the specificity of the learning outcomes, appointment of special teachers for arts, sports, health and work experience, providing separate training for teachers for arts, sports and work experience and ensure the availability of equipment for these areas, providing, necessary hints in the teacher text for arts, sports and work experience, including life skills in the teacher training programmes, providing aid for learning resources, providing acceptable and improved learning materials,providing smart class rooms with internet facility with required number of computers, CDs etc., providing sufficient resources for teachers, providing training to all teachers, providinggovernment aid to construct smart class rooms in aided schools,providing sufficient resources for nurturing the consciousness about values,providinglessons and activities suitable to develop qualities like moderateness, respectfulness and politeness,providing the service of specially trained teachers to handle the differently abled and ensuring clarity in Continuous Evaluation.

Ensuring the development of process skills in learners through learning process

The teachers were asked to mark their responses regarding ensuring the development of process skills in learners through learning process. The responses were analyzed and the result showing the percentage of teachers who opined regarding the item is given in Table 1.25

Table 1.25

Ensuring the development of process skills in learners

Statement	Responses in Percentage		
	Always	Someti mes	Not at all
Ensure the development of process skills in learners through learning process	7.74	90.32	1.94

It is evident from the table 1.25 that a great majority of teachers (90.32%) of Standard VII reported that they sometimes ensured the development of process skills in the learners through learning process, whereas only 7.74% always ensured it in the class. 1.94% of Teachers responded that they were not at all able to ensure the development of process skills in the learners through the learning process.

From this, it can be inferred that although majority of teachers of Standard VII (90.32%) sometimes ensured the development of process skills in the learners through learning process, only 7.74% could always ensure it in the class. Few teachers (1.94%) not at all ensured the development of process skills in the learners through the learning process.

Planning and implementing learning activities to attain conceptual clarity through multi-sensory experiences

The teachers were asked to mark their responses regarding planning and implementing learning activities to attain conceptual clarity through multi-sensory experiences. The responses obtained from the teachers were analyzed and the result is given in Table 1.26

Table 1.26

Planning and implementing learning activities

Statement	Responses in percentage	
	Yes	No
Plan and implement learning activities to attain conceptual clarity through multi-sensory experiences	88.39	11.61

It is seen from the table 1.26 that a great majority of teachers (88.39%) of standard VII reported that they planned and implemented learning activities to attain conceptual clarity through multi-sensory experiences, whereas 11.61% did not do so.

From this, it can be inferred that majority of teachers of standard VII planned and implemented learning activities to attain conceptual clarity through multi-sensory experiences. However 11.61% of the teachers did not do so.

Appropriateness of the curriculum in enabling learners to apply the knowledge

The teachers were asked to mark their responses regarding appropriateness of the curriculum in enabling learners to apply the knowledge acquired through the learning process in their daily life. The responses obtained from the Teachers were analyzed and the result showing the percentage of teachers who responded is given in Table 1.27

Table 1.27

Appropriateness of the curriculum in enabling learners to apply the knowledge

Statement	Responses in Percentage	
	Yes	No
Curriculum is appropriate for enabling learners to apply the knowledge acquired through learning process in their daily life	90.97	9.03

It is evident from the table 1.27 that a great majority of teachers (90.97%) of standard VII reported that curriculum is appropriate for enabling learners to apply the knowledge acquired through learning process in their daily life, whereas 9.03% did not agree to the statement.

From this, it can be inferred that *although the curriculum is considered appropriate for enabling learners to apply the knowledge acquired through learning process in their daily life by majority of teachers of standard VII, nearly one-tenth of the teachers considered otherwise.*

Making use of the learning strategies appropriate to the content

The teachers were asked to mark their responses regarding making use of the learning strategies appropriate to the content. The responses obtained from the Teachers were analyzed and the result is given in Table 1.28.

Table 1.28

Making use of the learning strategies appropriate to the content

Statement	Responses in Percentage	
	Yes	No
Make use of the learning strategies appropriate to the content	84.52	15.48

The Table1.28 shows that majority of Teachers (84.52%) of standard VII reported that they made use of the learning strategies appropriate to the content, whereas15.48% did not. From this, it can be inferred that *majority of teachers of Standard VII made use of learning strategies appropriate to the content. However 15.48% of teachers did not*

Difficulties experienced while making use of learning strategies

The teachers were asked to indicate their responses regarding the strategies that pose difficulties to them. The responses were analyzed and the results are given in Table 1.29.

Table 1.29

Difficulties experienced while making use of learning strategies

Strategies that pose difficulty	Responses in Percentage
a. Investigative learning	10.97
b. Method of concept acquisition	2.58
c. Inductive thinking	5.16
d. Meta cognition	9.03
e. Co-operative leaning	1.94
f. Collaborative learning	1.94
g. Critical thinking	6.45

The learning strategies that were found difficult by the Teachers of Standard VII to use according to the content, in the descending order of difficulty were Investigative learning (10.97%), Meta cognition (9.03%), Critical thinking (6.45%), Inductive thinking (5.16%), Method of concept acquisition (2.58%), Collaborative learning (1.94%) and Co-operative leaning (1.94%).

Therefore it can be inferred that - *for Teachers in Malayalam, the learning strategies - Investigative learning and Meta cognition were the most difficult learning strategies that can be used appropriate to the content.*

Reasons for experiencing difficulty while making use of appropriate learning strategies

The teachers were asked to express their responses regarding the reasons for experiencing difficulty while making use of appropriate learning strategies. The responses were analyzed and the results are given in Table 1.30

Table 1.30

Reasons for experiencing difficulty while making use of appropriate learning strategies

Reason	Responses in Percentage
a. Lack of time	75.48
b. Practical difficulty	38.71
c. Lack of facilities/materials	52.26
d. Lack of training	17.42

The reasons that were attributed by the teachers for experiencing difficulty while making use of appropriate learning strategies as evident from the table, were lack of time (67.74%), lack of facilities/materials (41.29%), practical difficulty (33.55%) and lack of training (10.32%).

Therefore it can be inferred that *'lack of time' and 'lack of facilities/materials' were the major reasons that were mentioned by the teachers of standard VII for experiencing difficulties while making use of appropriate learning strategies.*

Analysis regarding reasons for experiencing difficulty in utilizing of sufficient learning strategies

Teachers reported some reasons for experiencing difficulty in utilizing suitable learning strategies. They are: low learning level of learning, learners have differing standards, poor infrastructure, poor family environment, the attitude of learners, and lack of interest in learning.

Planning and implementing learning activities to overcome the constraints of slow learners

The teachers were asked to mark their responses regarding planning and implementing learning activities to overcome the constraints of slow learners. The responses were analyzed and the result is given in Table 1.31

Table 1.31

Planning and implementing learning activities to overcome the constraints of slow learners

Statement	Responses in Percentage	
	Yes	No
Plan and Implement learning activities to overcome the constraints of slow learners	60.00	40.00

As seen from the table 1.31, three-fifth of teachers of standard VII (60%) planned and implemented learning activities to overcome the constraints of slow learners, whereas 40% did not.

Hence it can be inferred that *majority of teachers of standard VII did not plan and implement learning activities to overcome the constraints of slow learners.*

Reasons for experiencing difficulty while planning and implementing learning activities to overcome the constraints of slow learners

The teachers, who indicated that they experienced difficulties while planning and implementing learning activities to overcome the constraints of slow learners, were asked to indicate their responses regarding the difficulties they experienced. The responses were analyzed and the results showing the percentage of teachers, who marked the various difficulties, are given in Table 1.32

Table 1.32

Reasons for experiencing difficulty while planning and implementing learning activities to overcome the constraints of slow learners

Reason for Difficulties	Responses in Percentage
(a) To plan and implement the activities for different levels of learners	24.52
(b) Remedial Teaching	10.32
(c) Lack of specially prepared learning materials	32.26
(d) Lack of time	36.13

The reasons reported by the teachers of standard VII for difficulties in planning and implementing learning activities to overcome the constraints of slow learners were: lack of time (36.13%), lack of specially prepared learning materials (32.26%), ‘difficulties in planning and implementing activities for different levels of learners (24.52%) and difficulties in remedial teaching (10.32%).

Therefore it can be inferred that *‘lack of time’ and ‘lack of specially prepared learning materials’ were the reasons that were mentioned by more than one third of the teachers of standard VII who indicated that they faced difficulty while planning and implementing learning activities to overcome the constraints of slow learners.*

Teachers in Malayalam also pointed out following difficulties in planning activities to overcome the limitations of slow learners. They are: presence of learners with high standard, continuous absenteeism of learners’ environment and interest of the learners, lack of training and less number of activities in the text book and lack of interest of parents.

Ensuring attainment of learning outcomes in different levels of learners

The teachers were asked to mark their responses regarding ensuring attainment of learning outcomes in different levels of learners. The responses obtained from the Teachers were analyzed and the results is given in Table 1.33.

Table 1.33

Ensuring attainment of learning outcomes in different levels of learners

Statement	Responses in Percentage	
	Yes	No
Ensure attainment of learning outcomes in different levels of learners	25.81	74.19

As evident from the table 1.33, majority of teachers of standard VII (74.19%) did not ensure the attainment of learning outcomes in different levels of learners, whereas only quarter of teachers (25.81%) were able to do so.

Hence it can be inferred that *majority of the teachers of standard VII did not ensure the attainment of learning outcomes in different levels of learners.*

Teachers in Malayalam reported that the difficulties in ensuring learning outcomes satisfactorily in different levels of learners are: lack of sufficient time to implement the adapted activities effectively; differently abled learners cannot reach the level of other learners, lack of service of specially trained teachers the differently abled learners, providing training to the teachers, difficulty in planning the learning activities for the differently abled, continuous absenteeism of these learners, the content cannot be completed when learners are to be taken care of, lack of instructional strategies suitable to the differently abled learners, lack of time to improve the understanding of concepts, reading and writing skill of these learners, lack of interest among these learners, reluctance in these learners to get involved in the activities, presence of lot of learning disabilities, insufficient learning materials and instruments, lack of proper planning, over burden of extracurricular activities, insufficient resources and process given in the text book, practically difficult to identify, develop and implement the learning activities, lack of infrastructure, poor response of the learners insufficient parental support and over-crowded classroom.

Implementation of learning activities to enrich the abilities of gifted learners

The teachers were asked to mark their responses regarding implementation of learning activities to enrich the abilities of gifted learners. The responses obtained from the Teachers were analyzed and the result is given in Table 1.34.

Table 1.34

Implementation of learning activities to enrich the abilities of gifted learners

Statement	Responses in Percentage	
	Yes	No
Implement learning activities to enrich the abilities of gifted learners	85.81	14.19

It is clear from 1.34 that majority of teachers of standard VII (85.81%) implemented learning activities to enrich the abilities of gifted learners, whereas 14.19% did not.

Therefore it can be inferred that *although majority of teachers implemented learning activities to enrich the abilities of gifted learners, 14.19% of them did not do so.*

Reasons for experiencing difficulties in the implementation of learning activities to enrich the abilities of gifted learners

The teachers were asked to indicate their responses regarding the difficulties they had. The responses were analyzed and the results are given in Table 1.35

Table 1.35
Reasons for difficulties in the implementation of learning activities to enrich the abilities of gifted learners

Reason for Difficulties	Responses in percentage
Difficulty in planning challenging learning activities	7.74
Lack of suitable learning resources	10.97
Lack of time	11.61
Lack of training	5.81

The reasons that were attributed by the teachers of standard VII for not being able to implement learning activities to enrich the abilities of gifted learners effectively were: lack of time (11.61%), lack of suitable learning resources (10.97%), ‘difficulty in planning challenging learning activities (7.74%) and lack of training (5.81%).

Remedial measures suggested by teachers for tackling the difficulties in enriching the abilities of gifted learners are: more training is required, service of trained teachers and segregate the differently abled from the general stream.

Therefore it can be inferred that ‘*lack of time*’ and ‘*lack of suitable learning resources*’ and were the major reasons that were mentioned by teachers of standard VII who indicated that they faced difficulties in the implementation of learning activities to enrich the abilities of gifted learner. They suggested the need of more training and service of trained teachers to overcome these difficulties.

Application of suitable learning strategies to ensure maximum participation of all learners

The teachers were asked to mark their responses regarding applying suitable learning strategies to ensure maximum participation of all learners. The responses obtained from teachers analyzed and the result showing the percentage of teachers is given in Table 1.36

Table 1.36

Application of suitable learning strategies to ensure maximum participation of all learners

Statement	Responses in Percentage		
	Always	Sometimes	Not at all
Apply suitable learning strategies to ensure maximum participation of all learners	13.55	84.52	1.94

The table 1.36 revealed that majority of teachers of standard VII (84.52%) sometimes applied suitable learning strategies to ensure the participation of all learners whereas 13.55% were always able to apply them. 1.94% were not at all able to apply the learning strategies which ensured the participation of all learners.

Therefore it can be inferred that *although a majority of teachers of standard VII sometimes ensured the maximum participation of all learners, only 13.55% always ensured full learner participation.*

Transaction of the content in a learner friendly manner

The teachers were asked to mark their responses regarding transaction of the content in a learner friendly manner. The result showing the percentage of teachers who opined regarding the item is given in Table 1.37.

Table 1.37

Transaction of the content in a learner friendly manner

Statement	Responses in Percentage		
	Always	Sometimes	Not at all
Transact the content in a learner friendly manner	55.48	41.29	3.23

More than half of the teachers of standard VII (55.48%) always transacted the content in a learner friendly manner, 41.29% sometimes transacted the content in a learner centered way. 3.23% of the teachers were not learner friendly at all.

Hence it can be inferred that *although more than half of teachers of standard VII always transacted the content in a learner friendly manner, 41.29% were sometimes learner friendly in content transaction. It is startling to note that few teachers (3.23%) were not learner friendly at all in content transaction.*

IV. EVALUATION

Clarity in continuous evaluation

The responses from teachers based on clarity regarding Continuous Evaluation (CE) were collected and analyzed. The details are given in table.1.38

Table.1.38

Clarity in Continuous Evaluation Strategies

Aspect	Responses in Percentage	
	Yes	No
Clarity in continuous evaluation	92.46	7.74

From the table 1.38, it is found that majority of teachers in Malayalam (92.46%) reported that they got a clear idea about continuous evaluation. At the same time 7.74% of teachers responded negatively.

Even though majority of teachers got a clear idea about continuous Evaluation, about 7.74% teachers did not get the clarity.

Areas which need clarity for teachers

The data based on areas which need clarity regarding continuous evaluation strategies were collected from teachers who didn't get a clear idea about CE (10.74%) and were subjected to analysis. The details are given in table.1.39

Table 1.39

Areas which need clarity

Areas	Responses in Percentage
Assessment of Learning Process	3.87
Portfolio assessment	1.94
Unit assessment	1.29
Recording	0.65

Based on Table 1.39, very few teachers in Malayalam (3.87%) reported that they need clarity in evaluation of Learning Process. It is followed by Portfolio Evaluation, Unit evaluation and Recording.

Suggestions put forward by teachers for improvement regarding the areas of continuous evaluation strategies are:

Process evaluation-

- Evaluate selectively
- More planning is needed

Portfolio-

- More training is needed
- Specify clearly

Unit evaluation –

- Provide suitable worksheet for lessons
 - Provide tools
- Evaluate one or two activities in each unit

Grading-

- Requires more training

Recording-

- May be simplified
- Have to convince recording
- More training needed
- More time to be provided
- Needs more clarity in recording
- Grading in 5 different sub areas of each main area is difficult
- More practical facilities needed
- Provide format for recording

However majority of teachers got a clear idea about continuous evaluation, simultaneously a significant number of teachers need clarity in Continuous Evaluation in assessment of learning process and portfolio assessment. Suggestions put forward by teachers for improvement regarding the areas of continuous evaluation strategies are need of more planning, providing suitable worksheet for lessons and need of more clarity in recording.

Continuous Evaluation to ensure learning and to provide adequate support to learners

The data based on ability to carry out CE to ensure learning and to provide adequate support to learners were collected from teachers and were subjected to analysis. The details are given in table 1.40

Table1.40

Continuous Evaluation to ensure learning and to provide adequate support to learners

Aspect	Responses in Percentage	
	Yes	No
Ability to ensure learning and to provide support to learners though CE	65.81	34.19

From the table 1.40, it is found that teachers in Malayalam (65.81%) reported that they are able to ensure learning and to give support to the learners while carrying out CE. At the same time 34.19% teachers reported that they couldn't.

From the analysis it is clear that 34.19% of teachers are not able to ensure learning and to provide support to learners though CE.

Practical difficulties encountered while carrying out Continuous Evaluation

The data based on ability to carry out CE to ensure learning and to provide adequate support to learners were collected from teachers who are faced practical difficulties and were subjected to analysis. The details are given in table.1.41

Table 1.41

Practical difficulties encountered while carrying out Continuous Evaluation

Area	Responses in Percentage
Lack of awareness	4.52
Lack of time	27.74
Complexity of learning process	18.06
Overcrowded class rooms	12.90

Analysis of table1.41 revealed that 27.74% teachers reported that Lack of time in CE was their major practical difficulty to ensure learning and providing support to learners while carrying out CE. The other difficulties reported are; Complexity of learning process and Overcrowded class rooms and Lack of awareness.

The practical difficulties the teachers encounter while conducting continuous evaluation to ensure learning and providing adequate support to learners are lack of time, complexity of learning process, overcrowded classrooms and lack of awareness.

Carrying out the Learning process and Evaluation simultaneously

The data based on teacher's opinion about carrying out the learning process and evaluation simultaneously were collected and analyzed. The details are given in table Table.1.42.

Table 1.42

Carrying out the Learning process and Evaluation simultaneously

Aspects	Responses in Percentage	
	Yes	No
Carrying out the Learning process and Evaluation simultaneously	67.10	32.9

From the table 1.42 it is found that that majority of teachers in Malayalam (67.10%) reported that learning process and the continuous evaluation process takes place simultaneously while 32.9% of teachers reported that that learning process and the continuous evaluation process is not taking place simultaneously.

It is clear that even though majority of teachers are able to carry out learning process and evaluation simultaneously a significant number of teachers are not able to undertake the task successfully.

Practical difficulties encountered while carrying out learning process and evaluation simultaneously

The data based on responses of teachers regarding the practical difficulties encountered while carrying out learning process and evaluation simultaneously were collected and analyzed. The details are given in table Table.1.43

Table1.43

Practical difficulties in learning process and evaluation simultaneously

Practical difficulties	Responses in Percentage
Lack of proper planning	4.52
Lack of awareness about suitable strategies	4.52
To give more emphasis to learning process than evaluation	19.35

Table 1.43 shows that 19.35% of teachers responded that giving more emphasis to learning process than evaluation is the practical difficulty they face while carrying out learning process and evaluation simultaneously. The other difficulties reported are:

- Lack of time
- Not able to conduct evaluation for all students
- Lack of timely availability of records
- Recording evaluation in TM is not possible during the process
- Due to complexity of process and abundance of students

It is inferred that the practical difficulties encountered while carrying out learning process and evaluation simultaneously are due to giving more emphasis to learning process than evaluation, lack of proper planning and lack of timely availability of records.

Specificity of Indicators related to different areas of evaluation

The teachers were asked to opine whether the indicators related to different areas of evaluation are specific or not. The data collected and analyzed is given in table Table1.44.

Table.1.44

Specificity of Indicators related to different areas of evaluation

Aspects	Responses in Percentage	
	Yes	No
Specificity of indicators related to different areas of evaluation	87.74	12.26

From the Table it 1.44is found that 87.74% teachers in Malayalam reported that the indicators related to the different areas for evaluation are specific while 12.26% teachers reported as not specific.

It is noteworthy that a significant percentage of teachers (12.26%) reported that the indicators related to different areas of evaluation are not specific.

Area which needs clarity for indicators

The data based on areas which need clarity for indicators were collected from teachers who didn't get a clear idea about it were subjected to analysis. The details are given in table1.45

Table 1.45

Area which needs clarity for indicators

Areas	Responses in Percentage
Assessment of learning process	7.10
Portfolio Assessment	3.87
Unit assessment	4.52

From the Table 1.45,it is found that a very few teachers (7.10%) reported that they need clarity in assessment of Learning Process. A very few teachers need clarity in Unit assessment and Portfolio assessment.

Problems faced by teachers during the assessment of learning process

The data based on responses of teachers regarding problems faced by teachers during the assessment of learning process were collected and analyzed. The details are given in Table 1.46

Table1.46

Problems faced by teachers during the assessment of learning process

Problems	Responses in Percentage
Overcrowded classroom	30.97
Lack of suitable criteria	10.97
Lack of time	75.48
Lack of awareness of teachers	1.29
Lack of planning	2.58

The Table 1.46, revealed that 75.48% of teachers reported that the main problem faced by them during assessment of learning process is lack of time, 30.97% reported overcrowded classroom as their main problem, and 2.58% faced problems due to lack of planning and lack of awareness of teachers.

It is inferred that majority of teachers (75.48%) find lack of time as their major problem in conducting assessment of learning process. Other problems are overcrowded classrooms and lack of suitable criteria.

Provision for self-evaluation and peer evaluation

The data based on responses of teachers regarding provision of opportunities for Self-evaluation and Peer evaluation were collected and analyzed. The details are given in table1.47.

Table 1.47

Provision for Self-evaluation and Peer evaluation

Aspects	Responses in Percentage	
	Yes	No
Self –Evaluation	94.84	5.16
Peer Evaluation	81.94	18.06

From the Table 1.47 it is clear that 94.84% of teachers reported that they provide opportunities for self-evaluation and 81.94% of teachers for peer evaluation. But it is significant to note that 18.06% of teachers are not providing any opportunity for peer evaluation and 5.16% for any self-evaluation.

Majority of teachers opined that they provide opportunities for self-evaluation and peer evaluation in learning process. It is noteworthy that a significant number of teachers are not providing any opportunity for peer evaluation

Preparation of indicators for Evaluation

The data based on responses of teachers regarding preparation of indicators for evaluation were collected and analyzed. The details are given in table 1.48.

Table1.48

Preparation of indicators for Evaluation

Area	Responses in Percentage
Prepared by Teacher	44.52
Prepared by learners themselves	15.48
Derives from classroom discussion	72.90

From the Table1.48, it is clear that 72.90% of the teachers framed indicators for evaluation through classroom discussion whereas below fifty percentage (44.52%) provided the indicators directly. On the other hand, 15.48% opined that the indicators were prepared by students themselves. Some of the teachers framed indicators for evaluation using the following strategies:

- Indicators prepared with the help of students
- Indicators prepared after forming a single group
- Evaluation based on groups
- Indicators given in the teacher text

It is noteworthy that that 44.52% of teachers are giving indicators for evaluation directly instead of giving opportunities to students in the classroom. Majority of teachers(72.90%) used indicators developed in groups and some others used the indicators given in teacher text.

Provision of ample opportunity for learners to present their products related to self-evaluation and peer evaluation

The data based on responses of teachers regarding provision of ample opportunity to learners to present their products related to self- evaluation and peer evaluation were collected and analyzed. The details are given in table 1.49

Table 1.49

Opportunity to learners to present their products related to self- evaluation

Aspects	Responses in Percentage	
	Yes	No
Provision of ample opportunity to learners to present their products related to self- evaluation and peer evaluation	89.03	10.07

From the Table 1.49 it is found that majority of teachers in Malayalam (89.03%) reported that they provide ample opportunity to learners to present their products related to self-evaluation and peer evaluation.

It is significant to note that even though majority of teachers are providing opportunities to learn to present their product related to self-evaluation and peer evaluation, a significant number of teachers are not providing at all.

Suitable changes made in the classroom process considering the learners' evaluation

The data based on responses of teachers regarding suitable changes made in the classroom process considering the learners' evaluation were analyzed and the details are given in Table 1.50

Table 1.50

Necessary changes in the classroom process

Aspect	Responses in Percentage	
	Yes	No
Necessary changes made in the classroom process considering the learners' evaluation	78.71	21.29

From the Table 1.50 it is found that majority of teachers (78.71%) reported that they make necessary changes in the classroom process considering the learners' evaluation whereas 21.29% of teachers do not make any necessary changes in the classroom process .

Changes incorporated for student evaluation

The teachers who made changes in the classroom process considering the evaluation of learners pointed out some changes they have made for the last one year. They are:

- Giving due consideration to slow learners
- Peer teaching and evaluation
- Used ICT possibilities in evaluation
- Remedial teaching

- Conducting Reading competition Dictation, Quiz, etc.
- Foster competitive spirit among students
- Collaborative learning
- Ensuring the presence of students of different levels in all groups
- Manuscript preparation
- Self-evaluation during drama and recitation
- Facilitate copy writing to reduce spelling mistakes
- Used more learning aids
- Fixing of alphabets
- Preparing teacher version
- Presenting lesson as scripts
- Encouraging bright students
- Changes strategies in evaluation
- Better use of library
- Editing activity enhanced to reduce spelling mistakes
- More time allotted for reading notes and review
- Simplifying activities for slow learners
- Giving more importance to creative writings
- Priority given to local language in activities
- Provision of individual activities
- Identifying slow learners and their ensuring improvement through “Munnettam”
- Planning activities for bright students
- Conduct News reading and story reading in assembly
- Self-developed module for students of different levels
- Applying new methods of learning and evaluation
- Changed classroom arrangements
- Conducting Extra classes

From the above list it can be inferred that the majority of teachers have made various changes in classroom process considering the learner’s evaluation.

Tools / techniques while using in unit wise evaluation

The data based on responses of teachers regarding the use of Tools / techniques used for unit wise evaluation were collected and analyzed . The details are given in Table.1.51.

Table:1.51

Tools / techniques for evaluation

Area	Percentage
Quiz	78.06
Open book test	29.03
Class test	96.13

It is found from the Table1.51, that class test is the widely used tool by majority of the teachers (96.13%) for unit wise evaluation whereas 78.06% of the teachers used quiz as a tool for unit wise evaluation. Open book test technique was employed only by 29.03% of the teachers.

Other techniques and strategies used by the teachers for unit evaluation are:

- Seminar
- Debate/debate report
- Work sheets
- Discussions
- Recitation
- Quiz
- Creative writing (Story, poetry, essays, reviews, reading notes)
- Collection of additional information and presentation in class
- Communication skill
- Unit consolidation
- Questioning
- Collections
- Visuals
- Elocution

Class test and quiz are found to be the most popular tools for unit evaluation. Along with Open book test teachers also use evaluation tools/ techniques like seminars, work sheets, creative writing and collections.

Records considered for continuous evaluation

The data based on responses of teachers regarding the records they consider for CE. The details are given in table 1.52.

Table1.52

Records considered for continuous evaluation

Area	Percentage
Class note books	96.13
Worksheets	79.35
Creative Writings	92.26
Short notes	87.10
Project/seminar reports	78.06
Answer sheets of unit wise evaluation	79.35

The Table 1.52, above reveals that a great majority of teachers reported that the records they consider for continuous evaluation are: class note books(96.13 %) and creative writings(92.26%). Others reported that they consider short notes (87.10%), worksheet (79.35%), answer sheets of unit wise evaluation (79.35%), project/seminar reports (78.06%) as the records for continuous evaluation.

Apart from the above said records teachers use some other records for continuous evaluation. They are:

- Group activities
- Port folio
- Communication skill
- General performance
- Collections
- Diary writing
- Dictations
- Club activities
- Excellence in co- curricular activities
- Presentations
- Peer evaluation
- Oral evaluation (Reading, Storytelling, recitations, Quiz, Elocutions, etc.)
- Class tests

From the analysis it is inferred that teachers in Malayalam are considering different records such as class notebooks, work sheets, project/seminar reports, answer scripts, short notes and creative writings /assignment for continuous evaluation.

Feedback based on continuous evaluation

The data based on responses of teachers regarding the feedback based on continuous evaluation. The details are given in table Table1.53

Table 1.53

Feedback based on continuous evaluation

Aspect	Responses in Percentage	
	Yes	No
For learners	96.13	3.87
For parents	79.35	20.65

From the Table 1.53, it is revealed that a great majority of teachers (96.13%) reported that they provide feedback for learners based on continuous evaluation and 79.35% of teachers for parents. It is significant to note that 20.65% of teachers are not giving feedback for parents.

Even though majority of teachers are giving feedback based on CE for learners(96.13%) and for parents(79.35%) a significant number of teachers(20.65%) are not giving feedback on CE to parents.

Provision for remedial instruction based on feedback from Continuous Evaluation

The data based on responses of teachers regarding remedial teaching based on continuous evaluation. The details are given in table Table.1.54

Table 1.54

Remedial teaching based on continuous evaluation

Aspect	Responses in Percentage	
	Yes	No
Provision for remedial instruction based on feedback from Continuous Evaluation	90.97	9.03

Table 1.54, reveals that a great majority of teachers (90.97%) reported that they are providing remedial instruction based on feedback from Continuous Evaluation, while 9.03% teachers are not providing remedial instruction.

Majority of teachers(90.97%) are providing remedial instruction based on feedback from Continuous Evaluation. It is noteworthy that 9.03% of teachers are not providing remedial instruction based on the feedback obtained from continuous evaluation for learners and parents.

Methods/Strategies adopted for remedial instructions

The data based on responses of teachers regarding the strategies chosen for remedial teaching. The details are given in table 1.55

Table 1.55

Methods/Strategies for remedial teaching

Area	Percentage
Changing the process	49.68
Giving support	81.29
Peer tutoring	54.19
Follow-up activities	68.39

From the Table 1.55, it is clear that majority of the teachers (81.29%) opined that they used supportive measures as part of remedial teaching whereas 68.39% of teachers employed follow-up activities for remedial teaching. It is found that 54.19% of the teachers used peer tutoring method for remedial teaching and 49.68% of teachers changed the process of teaching for remedial teaching. Other methods adopted for remedial teaching are:

- Work sheets
- Group reading
- Extra classes
- Contact with parents
- ICT possibilities
- Visual media
- Co-operative learning
- Providing Teachers version
- Utilizing resources

Accurate recording of continuous evaluation

The data based on responses of teachers regarding the accurate recording of continuous evaluation were collected and analyzed. The details are given in table 1.56

Table 1.56

Accurate recording of continuous evaluation

Aspect	Responses in Percentage	
	Yes	No
Recording of continuous evaluation	62.58	37.42

From the Table 1.56, it is found that 62.58% of teachers reported that they are accurately recording the details of the continuous evaluation. While 37.42% reported that they are not recording the details of CE

Practical difficulties in recording continuous evaluation

The teachers who are not recording continuous evaluation accurately opined that they are facing some practical difficulties. They are:

- Lack of sufficient time
- Excess number of students
- Lack of timely availability of records
- Handling of different subjects
- Complexity in recording
- Non availability of text books at the beginning of academic year.
- Lack of awareness of recording procedures

Even though majority of teachers accurately record the details of continuous evaluation, 37.42% teachers do not accurately record the details of continuous evaluation due to lack of sufficient time, overcrowded classrooms, and lack of awareness of recording procedures.

Framing Different evaluation strategies for CWSN learners

The data based on responses of teachers regarding the framing of different evaluation strategies for CWSN learners were collected and analyzed. The details are given in table 1.57

Table 1.57

Framing Different evaluation Strategies for CWSN learners

Aspect	Responses in Percentage	
	Yes	No
Framing different evaluation strategies for CWSN learners	60.65	39.35

From the Table 1.57, it is found that 60.65% of teachers reported that they are framing different evaluation strategies for CWSN learners. But about 40% of teachers are not framing different evaluation strategies for CWSN students. The teachers who are framing different evaluation strategies for CWSN students proposed some strategies they used in the class. They are:

- Providing activities using pictures (completing, labeling, coloring, etc.)
- Activities which caters their interest
- Acting
- Multidimensional activities

- Evaluating special abilities
- Evaluating adaptation questions made
- Easy and simple activities
- Work sheets
- Jigsaw puzzles
- Simplified evaluation indicators
- Record separately and exhibits in class PTA
- Activities using multimedia
- Framing special modules
- Oral test

From the analysis it is clear that 60.65% of teachers are framing different strategies for CWSN learners such as activities But a significant percentage of teacher(39.35%) are not framing different strategies for CWSN learners.

Recording of responses Based on Term Evaluation

The data based on responses of teachers in Recording of responses based on statements related to term evaluation were collected and analyzed . The details are given in table 1.58

Table1.58

Recording of responses Based on Term Evaluation

Statements	To a Great extent	To Some extent	Not at all
Clear awareness about Term Evaluation	92.90	5.81	1.29
The tools adopted for Term Evaluation are adequate for evaluating learning outcomes.	69.68	27.10	3.22
Include variety questions which give emphasis to thinking skills	67.74	29.68	2.58

Table 1.58, revealed that majority of teachers (92.90%) reported that they have the clear awareness about Term Evaluation. At the same time 69.68% of teachers reported that tools for TE are suitable for evaluating the learning outcomes to a great extent while 67.74% opined that Term Evaluation includes variety of questions which give emphasis to thinking skills to a great extent level. Regarding the statements related to term evaluation it is noteworthy that around 30% of teachers opined that the tools adopted for term evaluation are adequate only to some extent and 31% of opined that term evaluation include variety questions which give emphasis to thinking skills.

Even though majority of teachers are aware of the term evaluation(92.90 %), have opinion that the tools adopted for term evaluation are adequate for evaluating learning outcomes (69.68%) and that term evaluation includes variety of questions which give emphasis to

thinking skill (67.74%), it is significant that a considerable per cent of teachers opined that the tools adopted for term evaluation are adequate for evaluating learning outcomes(27.10%) and that term evaluation includes questions which give emphasis to thinking skills (29.68%) only to some extent level.

Difficulties experienced in TE

The data based on responses of teachers regarding the difficulties they face related to TE are collected and analyzed. The details are given in table 1.59

Table1.59

Difficulties experienced in TE

Aspect	Responses in Percentage	
	Yes	No
Teachers face Difficulties related to TE	21.94	78.06

It is clear from the Table 1.57, that the majority of teachers (78.06%) are not facing difficulties regarding TE. About 21.94% of teachers reported that they face difficulties related to regarding TE.

Even though majority of teachers are not facing any difficulties related to TE (78.06%), a significant number of teachers have difficulties related to TE (21.94%).

Difficulties experienced by teachers in Term Evaluation

The teachers who face difficulties related to term evaluation opined that they are having difficulties in the below mentioned areas. The details are given in table 1.60.

Table 1.60

Difficulties experienced by teachers in Term Evaluation

Aspect	Responses in Percentage
a) Inadequate evaluation strategies	12.26
b) Difficulty in grading	6.45
c) Difficulty in recording	4.52

From the Table 1.60, it is seen that 12.26% of teachers reported that the difficulties they experienced related to term evaluation is due to inadequate evaluation strategies. The other difficulties reported are: Difficulty in grading (6.45%) and difficulty in recording (4.52%).

The other difficulties reported by the teachers are given below.

- Difficult in framing questions suiting different levels of students
- Bright students show low score in TE
- More questions from content during Ist and II TE makes difficulty
- Simple chapter may be given initially
- Lack of time

- Over load of content
- Abundance of students

From the analysis is found that few teachers reported that they experienced difficulties related to term evaluation. The difficulties are inadequate evaluation strategies, difficulty in grading and difficulty in recording. Some other difficulties recorded are difficult in framing questions for all level of learners, supremacy of content related questions, and abundance of students, overload of content and lack of time.

Evaluation related to art, sports and work experience

The data based on responses of teachers regarding the effectiveness of evaluation related to art sports and work experience are collected and analyzed. The details are given in table1.61

Table 1.61

Evaluation related to art, sports and work experience

Aspect	Responses in Percentage	
	Yes	No
Conduct of evaluation related to art, sports and work experience	54.84	45.16

It is clear from the table 1.61 that 55% teachers conducted evaluation related to art, sports and work experience effectively.

It is significant to note that 54.84% of the teachers are not able to conduct evaluation related to arts, sports and work experience effectively.

Suggestions for improve the efficiency of evaluation related to arts and sports activity learning-

- Appoint trained teachers
- Include sufficient time
- Provide Training
- Specific period and text book needed
- Provide evaluation tools and work sheet
- Ensuring availability of TB and TT

The teachers suggested the appointment of trained teachers in arts, sports and wok experience to ensure the effective evaluation. They suggested including sufficient time to practice these subjects, providing separate period for teaching these areas and providing evaluation tools/ worksheets for evaluating these subjects.

Evaluation and recording carried out for Socio –Emotional Areas

The data based on responses of teachers regarding the implantation of evaluation and recording Social and Emotional areas are collected and analyzed. The details are given in table 1.62

Table 1.62
Evaluation and recording carried out for Socio –Emotional Areas

Area	Percentage
Empathy	80.00
Interpersonal skill	80.00
Problem solving capacity	70.97
Critical thinking	59.35
Self-awareness	77.42
Communicative skill	78.06
Coping with emotions	63.87
Decision making	83.87
Creative thinking	74.84
Coping with stress	50.32

The table 1.62 reveals that majority of teachers are conducting evaluation and recording of social and emotional areas like decision making (83.87%), empathy(80%), interpersonal skill (80%), communicative skill(78.06%),Self-awareness (77.42%), creative thinking (74.84%), Problem solving capacity (70.97%),However teachers are not giving much importance to certain areas like in critical thinking and copying with stress.

Majority of teachers are carrying out evaluation and recording of socio-emotional areas like decision making (83.87%),empathy (80%), interpersonal skill (80%), communicative skill(78.06%), self-awareness (77.42%), creative thinking (74.84%), problem solving capacity (70.97%).It is important to note that a significant number of teachers are not yet carrying out evaluation and recording in coping with emotions (63.87%),critical thinking (59.35) and coping with stress (50.32%).

V. MALAYALAM (subject specific)

Adequacy of resources in the text book for enhancing Reading habit among learners

The responses of teachers regarding the adequacy of resources in the text book for enhancing reading habit among learners were collected and analyzed. The details are given in the table 1.63

Table 1.63
Adequacy of resources in the text book for enhancing
reading habit among learners

Sl. No	Items	Responses in Percentage
1.	Summarizing the content	86.45
2.	Preparing reading note	93.55
3.	Collection of similar compositions	80.00
4.	Comparison of similar composition	77.42
5.	Post reading activities	70.32
6.	Identification of climax of compositions	61.94
7.	Story telling	63.87
8.	Recitation	67.10
9.	Workshop for creative writing	63.87

It is found from table 1.63 that a great majority of teachers (93.55%) reported that the activity of preparing reading note given in the Malayalam text book is adequate for developing reading habit among students. Majority of teachers (70.32% -86.45%) reported that activities like summarizing content ,collection of similar compositions, comparison of similar composition and post reading activities given in the text book are adequate for developing reading habit among learners. It is followed by recitation (67.10%), workshop for creative writing (63.87%) and identification of climax of compositions(61.94%).

It is found that a great majority of teachers reported that only the activity of preparing note given in the Malayalam text book is adequate for developing reading habit among students while it is desirable to include provision for recitation, workshop for creative writing and identification of climax of compositions.

Adequacy of resources in the text book for fostering literary aptitude among learners

The responses of teachers regarding the Adequacy of resources in the text book for fostering literary aptitude among learners were collected and analyzed . The details are given in the table 1.64

Table 1.64

Adequacy of resources in the text book for fostering literary aptitude among learners

Sl. No	Items	Responses in Percentage
1.	Story writing	85.81
2.	Versification	81.94
3.	Conversation	80.00
4.	Description	83.23
5.	Narration	78.71
6.	Appreciation	83.23
7.	Story telling	69.68
8.	Recitation	83.23
9.	Puzzle/riddle framing	57.42
10.	Foot note writing	63.87
11.	Story	73.55
12.	Poetry completion	67.74
13.	Title writing	78.71

The analysis revealed that majority of teachers(73%-85.81%) reported that the provisions /resources for story writing,narration, appreciation, recitation , versification , conversation , description, title writing and story given in the text book are adequate for fostering literary aptitude among learners. At the same time above sixty percent teachers reported for story telling(69.68%) , poetry completion(67.74%) and foot note writing(63.87%). It is also found that 57.42% teachers responded for puzzle/riddle framing.

Even though majority of teachers reported that the provisions /resources for story writing,narration, appreciation, recitation, versification , conversation , description, title writing and story given in the text book are adequate for fostering literary aptitude among learners, only 57.42% teachers responded for puzzle/riddle framing.

Inclusion of resources for creative writing in the text

The responses of teachers regarding the inclusion of resources for creative writing in the text were collected and analyzed. The details are given in the table1.65

Table 1.65**Inclusion of resources for creative writing in the text**

Sl.No	Items	Responses in Percentage
1.	Story completion	56.77
2.	Picture story	43.23
3.	Poetry completion	68.39
4.	Picture reading	78.06
5.	Narrative writing	81.94
6.	Description notes	76.77
7.	Conversation writing	61.94
8.	Criticism writing	66.45
9.	Script writing	65.81
10.	Preparation of appreciation	90.32
11.	Foot note writing	63.87
12.	Card making	60.00

A great majority(90.32%) of teachers reported that preparation of appreciation given in the text book are suitable for providing opportunity for creative writing . It is followed by narrative writing (81.94%) , picture reading(78.06%), description notes(76.77%) , Poetry completion(68.39%), criticism writing(66.45%), script writing(65.81%), foot note writing (63.87%), conversation writing(61.94%) and card making(60%) .Story completion(56.77%) and picture story(43.23%) are the other activities ,suitable for providing opportunity for creative writing, included in the text .

Even though a great majority of teachers reported that preparation of appreciation given in the text book are suitable for providing opportunity for creative writing, a significant number of teachers reported that activities like story completion and picture story ,suitable for creative writing are to be included in the text book.

Use of activities for acquiring language skills

The responses of teachers regarding the use of activities for acquiring language skills were collected and analyzed. The details are given in the table 1.66

Table 1.66**Use of activities for acquiring language skills**

Sl. No	Items	Response in percentage
1.	Role play	80.65
2.	Story telling	68.39
3.	Miming	50.32
4.	Colouring	76.13
5.	Choreography	59.35
6.	Drawing	78.71
7.	Recitation	87.10

From the table 1.66 it is found that teachers in Malayalam reported that recitation(87.10%), role play(80.65%), drawing(78.71%) colouring(76.13%) are the major activities used in the text book for acquiring language skills whereas story telling(68.39%), choreography(59.35%) and miming(50.32%) are the other activities reported by the teachers.

Majority of teachers in Malayalam reported that recitation, role play, drawing coloring are the major activities used in the text book for acquiring language skills where as a significant number of teachers reported that activities such as storytelling, choreography and miming are given importance in the text book for acquiring language skills.

Adequacy of teacher text for the effective transaction of concepts

The responses of teachers regarding the Adequacy of teacher text for the effective transaction of concepts were collected and analyzed. The details are given in the table 1.67

Table 1.67

Adequacy of teacher text for the effective transaction of concepts

Item	Response in percentage	
	Yes	No
Adequate for effective transaction of the concepts given in the text book	86.45	14.55

It is seen from table 1.67 that majority of teachers (86.45%) responded that the teacher text is adequate for effective transaction of the concepts given in the text book.

Majority of teachers have the opinion that the teacher textbook is adequate for effective transacting of the concepts. But it is noteworthy that 14.55% of teachers disagree with it.

Facilities/techniques used for acquiring language skills

The responses of teachers regarding the Facilities/techniques used for acquiring language skills were collected and analyzed. The details are given in the table 1.68

Table 1.68

Facilities/techniques used for acquiring language skills

Facilities	Response in percentage
Club activities	84.52
Language lab	50.97
School assembly	73.55
News paper	83.87

It is found from table 1.68 that club activities, newspaper, and school assembly are the facilities reported by majority of teachers (84.52%, 73.55% and 83.87% respectively) while 50.97% reported language lab.

It is understood from the teachers responses that they are using club activities (85.52%), newspapers (83.87%) and school assemblies (73.55%) in schools to help the learners in acquiring language skills. But considerably less number of teachers uses the facility of language labs to help the learners in acquiring language skills.

5.6 Observation regarding the difficulty while transacting discourses in the classrooms

The observations regarding the difficulty while transacting discourses in the classrooms were collected and analyzed. The details are given in the table below.

Table 1.69

Observation regarding the difficulty while transacting discourses in the classrooms

Aspect	Yes	No
Observation regarding the difficulty while transacting discourses in the classrooms	22.58	77.42

Majority of teachers (77.42%) opined that they don't face difficulties while transacting discourses in the classrooms. But small per cent (22.58) of teachers opined that they face difficulty while transacting discourses in the classroom.

It is significant that around 23% of teachers face difficulty while transacting discourses in the classrooms.

VI. CLASS OBSERVATION ANALYSIS

STANDARD: VII

SUBJECT: Malayalam

This section deals with the analysis of the data collected through class observation using rubrics. twelve classes (**standard VII**) Malayalam were observed. The details are given under appropriate heads.

Table1. 70

Class Observation Schedule

Sl. No	Dimensions	Very Good	Good	Needs Improvement	Does Not Meet Standards	No Remarks	
1	Teaching Manual	1	9	1	1		
2	Preparation	2	7	1	2		
3	Interest and Motivation	3	6	1	1	1	
4	Learning Activities	Nature	1	7	1	2	1
		Continuity	4	4	0	2	2
		Use of Learning Materials	3	6	1		2
		Knowledge Construction through Learning Activities	4	6	1		1
		Development of Attitude and Values	4	6	1		1
		Involvement of Learners	6	2	2	1	1
5	Learning Environment	2	6	2	1	1	
6	Classroom Intervention	6	3	2		1	
7	Reflective Thought	2	5	3	1	1	
8	Consolidation	2	6	3		1	
9	Evaluation Process	Process	2	7	2		1
		Self-evaluation					
		Peer evaluation					
		Portfolio					
10	Overview of the Class	2	5	3	1	1	

1. Teaching Manual (TM)

Regarding the observation of classes of 12 teachers (Table 70), only one teacher has prepared TM using additional resources and creative activities other than Teacher Text, whereas nine teachers prepared the TM using essential resources and activities. It is also observed that one TM was prepared based on the curricular approach to some extent and one of the teaching manuals needs improvement since resources and activities to be used were not at all included in it.

2. Pre-planning

It is observed that only two teachers ensured the necessary pre-requisites using variety of creative activities, while seven teachers provided a variety of learning activities to get adequate pre-requisites to all learners. At the same time one teacher provided activities for acquiring necessary basic pre-requisite knowledge to very few learners. But one teacher not at all provided any activities to ensure necessary pre-requisite .

3. Interest and motivation

Table 1.70 shows that only three teachers provided life-oriented and thought provoking activities like description, stories and leaning materials for developing interest and motivation among the learners . Five teachers made the class interesting using descriptions , stories and learning materials. At the same time three of them motivated the learners by only describing the content and asking questions.

4. Learning Activities

Observation of classes of 12 teachers indicated that in two classes learning activities suggested in TB and TT used by teachers used were highly effective for developing reflective thinking among learners. At the same time in six classes, variety of learning activities provided was effective. In two other classes it is found that learning activities were carried out mechanically. Learning activities provided by two teachers were dull and not suitable for attaining learning outcomes.

Four teachers transacted the content in a sequential order. Spontaneous progress in learning and timely recording in the TM were there in six classes observed . It is significant to consider that in two classes continuity was losing in certain places.

Among the 12 teachers four teachers were using innovative learning aids , prepared by local resources ,for attaining conceptual clarity and eight teachers used easily accessible learning aids recommended in the curriculum and three teachers used minimum number of learning aids already available in the school.

Regarding the knowledge construction through learning activities it is found that 4 teachers supported the learners to attain higher level of knowledge construction through variety of learning strategies including reflective questioning and debating, six teachers intervened actively by discussion and clearing doubts where as two teachers only tried to clarify the doubts through explanations.

It is seen that four teachers are providing slots for learning activities to develop attitudes, values and social responsibilities stipulated in the content for intellectual and emotional development, six teachers provided learning activities for intellectual and emotional development and advice and suggestions were the measures taken by only one of the teachers for developing attitudes and values.

It is again observed that regarding the intervention, six teachers helped learners to identify their roles and ensured their involvement in group and individual activities, two teachers helped learners to identify their roles in learning situations correctly, but the involvement of all learners were not ensured and three teachers didn't care for the identification of their roles and didn't ensure the involvement of all learners equally in learning process.

5. Learning Environment

From the classes observed it is noted that two teachers creates infrastructure/ICT facilities and independent social and emotional environment suitable for learning activities for all types of learners, while 6 teachers provided learning activities based on available infrastructure/ICT facilities and creates essential situation necessary for independent social and emotional environment. It is serious to consider that four teachers are not even using available infrastructure/ICT facilities.

6. Class room intervention

As per the analysis it is observed that six teachers intervened with all types of learners as mentors rather than teachers whereas three teachers made only essential interventions as teachers to attain learning out comes and three of them intervene only as much required to transact the content.

7. Reflective thinking

It is observed that out of the 12 classes observed two teachers provided variety of opportunities for reflective thinking in the concerned class itself and provided remedial measures and other five teachers provided opportunity for reflective thinking. It is also noted that activities/situations provided by three teachers were not adequate for providing reflective thinking.

8. Consolidation

It is found that in the two classes observed teachers consolidated individual and group activities so as to ensure the learning during and at the end of the class, whereas the six classes consolidated group activities during and at the end of the class. But in other three classes observed, teachers consolidated only at the end of the class.

9. Evaluation

From class room observation it is found that two teachers used variety of strategies for different types of evaluation , while seven teachers were seen using variety of strategies for evaluating learning outcomes based on the content. It is also seen that three of the teachers depend on certain evaluation strategies suggested in the text book.

10. Overview

From the analysis it can be tentatively concluded that among the 12 classes observed the performance of teachers is almost average with regard to the components like Teaching Manual preparation, learning environment, classroom intervention and evaluation process. The above mentioned findings high light the need for empowering Malayalam teachers with necessary competencies and skills for making the learning process oriented learner friendly.

VII. Answer Sheet Analysis: Malayalam Advanced Reader, Class-VII.

It is found that 16 students from various schools took part in this study. 7 students either gave wrong answers to the question or copied down the questions on to the answer sheet. These students should acquire all the skills devised as learning outcomes. 7 students attempted the question partially. They should acquire good language and style of expression. They should learn to prepare the analytical note with clarity of idea and creativity.

Diary writing

students have little knowledge about writing a diary. They should acquire the essential skills for that. The remaining 8 students have not acquired all the skills for diary writing. Suitable language and style, creativity, selection of words/usages according to the situation, and clarity of expression are expected to be learnt by these students.

Autobiographical note

Students could not even understand the purpose of indicators given in the question. They lack in reading and life experiences. They are yet to acquire the process skills. Some

students have not acquired the process skills completely. They should get to know more about writers and literary works. They should acquire capacity in briefly expressing the thoughts and framing suitable titles. They should also learn to incorporate quotes, socially relevant thoughts, and own opinions in their answers.

Appreciation

13 students do not have any idea about writing an appreciation. Reading and appreciation should be given due importance. Along with all the process skills, they should acquire skills in reading literary works and appreciating them. 2 students could only partially complete the answers. They find it difficult to prepare appreciation using proper description, finding the perfect word to convey the meaning, adding the social relevance, commenting on the poetic style, creativity etc. Also they find it difficult in framing a good and suitable title. They still have to acquire skills in good reading and appreciation.

Travelogue

9 students had previous travel experience but they failed in presenting the answer. Absence of appreciation skills, diary writing, and good reading skills are quite evident. They have to acquire all the process skills. 7 students partially attempted the activity. The students should acquire writing skills conjoined with completeness of idea and images using creativity, suitable language, and proper adjectives. They also face difficulty in using ornamental language.

Points to be noted:

- 1. Students have less understanding about being creative, use of good language, and good writing style.*
- 2. Students are not able to narrate experiences adeptly and they have inadequate vocabulary.*
- 3. Students find it difficult to frame good and meaningful titles.*
- 4. Students have less exposure to reading books and writers.*
- 5. Students have no ability in expressing themselves in ornate language.*

Malayalam – Basic Text Class VII

Appreciation

First term examination answer sheets of 16 students from various schools have been taken as sample and 5 students either copied the question itself on to the answer sheet or gave the wrong answer. These students are yet to achieve their learning outcomes. 5 students

partially achieved the learning outcomes. They have to acquire skills in using appropriate language and its use. They have to enrich themselves by reading and gaining experience.

Analysis

Answer sheet analysis revealed that 4 students have not achieved the knowledge in analyzing. They just copied down the question on to the answer sheet and they should acquire all process skills. When the answer sheets of 6 students were examined it was found out that they have not acquired the process skills completely. They are yet to acquire good language, effective writing style and clarity of thought. They should also enrich their use of own experiences and reading experiences. 11 students have no understanding about the use of punctuations.

Experience

It is found that 7 students either copied the question on to the answer sheet or skipped the question as such. They should acquire enough writing skills. 5 students attempted the question partially. They lacked the emotional content and personal style of presentation. Moreover they failed in framing a good heading. They have to improve their capacities in identifying the features of the given task, expressing their experience, and framing good headings.

Character Sketch

Answer sheet analysis revealed that 8 students either copied the questions as such or attempted the question wrongly. They were not able to identify the peculiarities of the characters. They are yet to develop all skills in this area. The answers written by 7 students were partial. Though they were able to identify the physical and behavioral features of the characters, they failed to analyze it appropriately. They should acquire skills of using good language and creativeness. Moreover they should obtain good reading experience and learn to frame good headings.

Story writing

Analysis revealed that 8 students either copied down the question as such or ignored the question. They have to acquire all the writing skills. The remaining 8 students did not attempt the answer seriously. The students lack understanding regarding presentation of theme, imagination, own language, style, and providing attractive heading. They have to acquire skills in all these areas. 8 students lack good vocabulary. They also need to acquire enough vocabulary

Overview

1. *Students have lack of knowledge in expressing own observations and opinions effectively.*
2. *Students lack skill in using good language and presenting things in good style.*
3. *Students have less exposure to reading and gaining experience from it.*
4. *Students attempt to copy down the question as such showing lack of interest in using writing skills.*
5. *Students fail to punctuate properly.*
6. *Students have not developed own style of writing, creativeness, power of imagination, and enough vocabulary.*

VIII. Text book analysis – Malayalam

Specific details are given below:

Details

- The contents of the textbook do justice to constructivist approach.
- Some of the lessons and activities do not facilitate construction of knowledge among students. Instead of giving activities that lead to construction of knowledge, the lessons are arranged in such a way that they facilitate detailing of ideas.

Explanation

Kerala Padavali: Unit 1

Travels and travelogues should develop reverence among learners towards our heritage and culture. Activities that develop such values are not there in the lesson 'Alakanandayilevellaramkallukal'. The lesson doesn't encourage the learners to have a historical, social and cultural reading.

The learners should infer that travelogue, like any other literary work, is a form of literature. As one of the discourses, learners are not able to reach the level of enjoying its aesthetics. Probably that is why the travelogues written by learners lack in content and are not enjoyable. Activities that lead to construction of knowledge are needed in this area.

Unit 2

Activities that create awareness regarding nature, preservation of natural resources, agriculture and culture should have been included in the lesson 'Adaykkaperukunnavar' (People who pick arecanut).

Activities that create awareness about democracy, equality, violation of human rights and denial of justice are not given.

Activities that could create a sense that oratory is a society transforming discourse are also not there.

Unit 3

Discussion on traditions, mythology or myths is not there in the lesson 'Kathuvanoorveeran'.

Various activities relating to nature, preservation of natural resources, cleanliness could have been or should have been given in the lesson 'Njattuvlapookal'.

Details

- Adequacy of the content in attaining the learning outcomes.
- Are the activities adequate enough to attain the desirable learning outcomes?
- Some of the lessons and activities are not adequate enough to attain the desirable learning outcomes.

Explanation

The lesson 'AlakanandayileVellaramKallukal' is not adequate enough to promote creative writing among learners.

The complexity of the lesson 'PookathirikkanEnikkavathilla' doesn't help in attaining learning outcomes like embellishment or images/imagery.

Complexity of the lesson 'Marthandavarma' defers presentation of the lesson with its fullest moods or emotions.

Due to the complexity, it is quite difficult to analyse and appreciate the peculiarities of the description or narrations.

The sentences could not be analyzed, the suitability of the usages or styles couldn't be found out because of the complexity of the lesson.

The title 'AsanthiyudeVenalalileKuliru' itself is incomprehensible. The complexity of the lesson impedes understanding of lesson and in consequence finds it difficult to present the ideas and attitudes quite well.

Activities do not suffice in chapters like 'PookathirikanEnikavilla', 'Veenapoovu' to find out the levels of meaning, images and symbols in them.

Unit 5 – Mayaponman

Is it possible to hunt down a deer in the contemporary world?

Activities that create awareness about conservation of wild life should be given.

Even though there are hints about humour in the chapter 'Prathal', it is not felt.

AdisthanaPadavali

Unit 1

Activities that create awareness about child marriage and child right should have been given in the lesson 'Kochanujan'.

Unit 2

Activities that lead learners to screenplay writing are not there in the lesson 'Peach Poonthottam.

Activity to change the lesson 'Vellapokkam' in to a travelogue should have been given there.

Details

- Are the contents/lessons of the text suitable for process oriented learning?

Even though the contents/lessons are suitable for process oriented learning, some of the activities given are not suitable for that.

Explanation

AzhicodeSamsarikunnu, EnikoruSwapnamundu' – the lessons in Kerala Padavali, second unit is not good enough to lead the learners to the mesmerizing world of oratory.

Details

- Instead of the usually given or traditional activities, variety of activities that are contemporary and facilitates ICT learning are not at all given in any unit.

Explanation

Keeping in mind celebration of days and festivals, variety activities that are pragmatic should be given in each unit.

Hints that help in time bound completion of activities should be included in textbook or teacher text.

In schools and classrooms, variety of learning activities in connection with celebration of days, festivals or study tours are done. But these are not extended to an appreciation level or development of writing skills most of the times.

Along with reading of news from newspaper, importance should be given to news reading in visual and audio media. Students should be able to explore the possibility of news reading in visual and audio media.

Traditional or usual activities create boredom among learners. Contemporary and variety learning activities which facilitate ICT usage are to be included.

It is a fact that music and art can attract and influence the regions and also the living beings. Activities that create awareness among the learners about these are not included in the lessons.

The lesson ‘VeenithalloKidakunnu’ is and imagery in itself. There is no hint about that in the lesson or in the teacher text. Even though it is quite suitable for developing into a screenplay, no reference to that is given in the lesson.

Details

- Language that helps to interact with learners should have been included in all the lessons. But in the present text book, it is not so.

Explanation

The language used in some of the units, entry activities and even in titles does not create interest among learners. Therefore, they don’t participate in learning process and do not attain the desirable learning outcomes.

The title ‘Mayaponman’ is not the standardized language. ‘Ponman’ will be mistaken for a bird. In fact the expression ‘Kanakamayamrigam’ was mistakenly translated into Malayalam as ‘Ponman’.

The language used in lessons like ‘PookathirikkanEnikavathilla’, ‘KathuvanoorVeeran’, ‘VeenithalloKidakunnu’, ‘AzhikodeSamsarikunnu’, ‘PalakadanKaattu’ in Kerala Padavali does not facilitate interaction with the learners.

Lessons like ‘NammudeLokam Nam SrishtikunnaVellapokkam’, ‘AsanthiyudeVenalileKuliru’, ‘MeenukaludeAkasavumParavakaludeBhoomiyum’ do not have the language that will facilitate interaction with the learners.

Details

Explanation

Most of the pictures in Kerala Padavali and AdisthanaPadavali are not decipherable.

Kerala Padavali

Unit 1

The pictures in Unit 1 are unattractive and unclear.

Unit 3

The same defect can be seen in the lesson 'KathuvanoorVeeran' of Unit 3.

Unit 4

What is the outcome achieved by the picture of the great poet Rabindranath Tagore travelling in a river by boat in Unit 4.

Details

- Most of the pictures are incomprehensible and illegible.
- The layout burdens the students more and is harmful to nature.

Explanation

AdisthanaPadavali

Unit 1

The picturisation of 'KochanujanilaChechiyum' in Unit 1 of AdisthanaPadavali and Aswathi in the lesson 'Aswathi' gives the impression that they are one and the same .

It is difficult to infer the suitability of the picture in the lesson 'NammudeLokam Nam Srishtikunnu'.

The pictures given for entry activity should be legible and helpful to imbibe ideas

Even though in the lesson 'GnamKettaNeram' (Krishnagadha), deer is described, it is not seen in the picture given. At the same time, a cow and a calf is shown. It would definitely mislead the children.

Details

- Lessons which require more explanations
- In Kerala Padavali, lessons like 'PookathirikanEnikkavathilla', 'KayethaDoorathu', 'Azhikode', 'Samsarikunnu', 'KathuvannurVeeran', 'VeenithallaKidakunnu', 'PalakkadanKattu' and in AdisthanaPadavali, lessons like 'Prathal', 'NammudeLokam', 'Nam Srishtikunnu, Vellapokkam'.

Explanations

The poem 'PookathirikkanEnikavathilla' is above the level of learners of standard seven.

The lessons 'AzhikodeSamsarikunnu', 'VeenithalloKidakunnu' are of high standard and even the gifted learners will find them difficult to grasp.

Details

- Lesson where the explanations have to be simplified

Explanations

The areas/aspects which are indicated in Serial no:7

Details

- Possibilities for continuous evaluation
- Evaluation activities for TE should be decided beforehand from ‘Kerala Padavali’ and ‘AdisthanaPadavali’.
- The possibilities of continuous evaluation in discourses and language elements should be explained convincingly to the parents too.

Explanations

In the first term TE, Evaluation activities were repeated in ‘Kerala Padavali’ and ‘AdisthanaPadavali’.

After the self- evaluation worksheet given at the end of the lesson, space should be provided to the teacher to make entries regarding continuous evaluation of discourses and also to create awareness among parents.

This will also help the child and the parents to understand that the child actively participates in continuous evaluation activities.

Rather than making profile writing a mere description of an individual, there should be activities that elevate it to the level of creative writing. The profile should also link the lesson with the literary works and a model of such a profile should be given in TT.

Details

- Ensure there is no element of discrimination
- It must be examined whether the 8 units each of Kerala Padavali and AdisthanaPadavali do justice to the secular fabric of the society.

Explanations

Discrimination against a boy is shown in the lesson ‘AlankanandayileVellaramKallukal’. But there is no activity that will make our children react to such discrimination in the lesson.

There should have been reference/hints about rights of children.

Activities that facilitate discussion about rights children should be given in the lesson ‘KathuvannorVeeran’. No discussion is there about the suppression of children’s abilities or rights.

It should be examined whether the lessons strengthen the values of democracy and secularism among the children.

Details

- The possibilities of democratic values
- Activities should be suggested in such a way to inculcate democratic values among the learners to the fullest level. A deliberate concerted effort is required to protect and preserve democratic values among the learners.

Explanation

An activity that cultivates tolerance should have been given in the lesson 'KayyethaDoorathu'.

Activities that create and awareness among learners that the bonding and tolerance we had in the past should be preserved, strengthened and passed over to others should be given to the learner.

The relevance of democratic values should be hinted in the lesson 'AdakkaParakunnavan'. Moreover, the process of learning should progress using whatever slots available to cultivate such democratic values among learners.

Activities that make our learners act as good Samaritans, within the limitations they have, should be given.

Details

- Child friendly layout
- The layout should lessen the burden of learners, be attractive and something which can be emulated. Moreover it should be eco friendly.

Explanation

The layout of the textbooks is not child friendly. The outer covering is unattractive and the quality of the paper used should improve. The present layout increases the usage of paper, thereby burdens the children and is harmful to nature.

Details

- The suitability of teacher text for transacting the lessons
- It would be better, if features of language elements and discourses are given while transacting the lessons.

Explanation

It would be better to include evaluation of language approach, growth of discourses and language along with each unit to convince teachers. The profile of a literature shouldn't be

the same when it is given in standard 5 or 7. It should be a writing that shows a growth in language as well as content.

The teacher text should rise to the level of a reference text enabling transaction of learning activities and organization of class room activities.

Activities that explore ICT should be given. The hints for that should be given in each lesson in TT

Except the fourth unit (Kerala Padavali) titles and entry activities do not help to get a holistic or comprehensive view of the unit.

II.B. English

I. LEARNING OUTCOME

The teachers were asked to mark their responses regarding the characteristics of learning outcomes envisaged in the Curriculum 2013. The responses were collected and analysed. The results are given under the subheadings based on the subject of the teachers.

The responses of English teachers regarding the clarity of the features of the learning outcomes are analysed and the results are given under various subheadings.

Clarity of the features of the learning outcomes

The teachers were asked to mark their opinion regarding the clarity of different features of the learning outcomes envisaged in the curriculum 2013 as 'Yes' or 'No'. The responses obtained from 500 English teachers were tabulated and analysed. The result showing the per cent of teachers who have and do not have clear idea regarding the different features of the learning outcomes envisaged in Curriculum 2013 are given in Table 2.1

Table 2.1

Clarity of the features of the learning outcomes

Statement	Response (Percentage)	
	Yes	No
Clarity regarding features of the learning outcomes envisaged by curriculum 2013	86.45	13.55

From Table 2.1, it is observed that majority of teachers (86.45%) in English have a clear idea regarding the characteristic features of the learning outcomes envisaged in the curriculum 2013. But 13.55% of teachers in English opined that they don't have the clear idea of the characteristic features of the learning outcomes envisaged in the curriculum2013.

Therefore it can be inferred that the characteristic features of the learning outcomes envisaged in the curriculum 2013 are clear to majority of teachers who are teaching English in class VII. It should be noted that among the English teachers of Class VII a small group do not have clarity regarding the characteristic features of the learning

outcomes envisaged in the curriculum 2013. They need more clarity on features like learning outcomes envisaged in the curriculum, short term and long term achievement Activity oriented learning, Inclusive education and ICT based education

Ensuring the attainment of expected learning outcomes

The teachers were asked to mark their opinion regarding the ensuring of attainment of expected learning outcomes through the transaction of content as ‘Yes’ or ‘No’. The responses obtained from English teachers were tabulated and analysed. The result showing the per cent of teachers who ensure and do not ensure the attainment of expected learning outcomes through the transaction of the content are given in Table 2.2

Table 2.2
Ensuring the attainment of expected learning outcomes

Statement	Response (Percentage)	
	Yes	No
Ensuring the attainment of the expected learning outcomes in all learners through the transaction of the content.	23.87	76.13

While analysing the table 2.2 majority of teachers (76.13%) teaching English in standard VII opined that they couldn’t ensure that all learners achieved the expected learning outcomes to be attained through the transaction of the content. Only 23.87 % of teachers could ensure that all learners achieved the expected learning outcomes through the transaction of the content.

It is noteworthy that majority of English teachers couldn’t ensure the achievement of the expected learning outcomes through the transaction of the content.

Analysis regarding the learning outcomes revealed that, some of the teachers opined that students attained the expected learning outcomes through the transaction of the lessons, but most of the teachers feel that in addition to the transaction of the lessons, peer tutoring, IT possibilities, group work, local text, etc. are the best methods for achieving the learning outcomes in an effective way.

Differentiating short term and long term learning outcomes

The teachers were asked whether they could differentiate between the short term and long term learning outcomes imbibed in English textbook as ‘To a great extent’, ‘To some

extent', and 'Not at all'. The responses given by the teachers are collected and analyzed. The result obtained is given in Table 2.3

Table: 2.3
Differentiating short term and long term learning outcomes

Statement	Response (Percentage)		
	To a great extent	To some extent	Not at all
Differentiate between the short term and long term learning outcomes	27.10	70.32	2.58

From table 2.3, it is clear that majority (70.32%) of teachers in English could differentiate between short term learning outcomes from long term learning outcomes only to some extent. Among the teachers 2.58% couldn't differentiate between the short term and long term learning outcomes. Only 27.10% of teachers could differentiate between short term and long term learning outcomes.

Therefore it is inferred that a majority of teachers in English couldn't differentiate between short term and long term learning outcomes properly.

Spiraling of learning outcomes to ensure continuity and growth

The teachers were asked whether the learning outcomes are arranged in such a way to ensure the continuity and development of it from the lower to higher classes. The responses marked by English teachers are as 'Yes' and 'No'. The result collected and analyzed is given in Table 2.4.

Table 2.4
Spiraling of learning outcomes to ensure continuity and growth

Statement	Response (Percentage)	
	Yes	No
Arrangement of the learning outcomes in such a way to ensure the continuity and development of it from the lower to higher classes	83.87	16.13

From the table 2.4, it is clear that a great majority (83.87%) of teachers in English agreed that the learning outcomes are arranged in such a way as to ensure the continuity and

development of it from lower to higher classes. But 16.33% of teachers opined that the spiraling of learning outcomes is not done so as to ensure the continuity and development of it from the lower to higher classes

Though only 16.13% of teachers disagree with the statement it can be inferred that the spiraling of learning outcomes are to be arranged more effectively to ensure the continuity and development of it from lower to higher classes.

4.b) Majority of teachers suggested that, the attainment of the learning outcomes formulated in such a way to ensure the chronological order from the lower class to higher class. Others recommended that the 7th standard text book should be prepared in keeping continuity with the 6th standard, and the basic knowledge about language elements must be fixed at the lower class.

Observable and measurable learning outcomes given in different units

English teachers were asked whether the learning outcomes given in different units are observable and measurable. The teachers responded to the question and it was collected and analysed. The per cent of teachers who responded to this question is recorded in Table 3.5

Table 2.5

Observable and measurable learning outcomes given in different units

Statement	Response (Percentage)	
	Yes	No
Opinion regarding observable and measurable learning outcomes	87.10	12.90

The table 2.5 shows that a great majority of teachers (87.10%) in English opined that the outcomes given in different units are observable and measurable. Minor percentage (12.90) of teachers opined that the learning outcomes given in different units are not observable and measurable.

Great majority of the teachers (87.10%) in English are of the opinion that the learning outcomes given in different units are observable and measurable. And it is noteworthy that more than 10% of teachers disagree with this

Acquisition of ideas/ skills from each unit through the learning outcomes

The teachers were asked whether they could understand the ideas/ skills to be acquired from each unit through the learning outcomes. The responses collected and analysed are recorded in Table 2.6.

Table 2.6

Acquisition of ideas/ skills from each unit through the learning outcomes

Statement	Response (Percentage)		
	To a great extent	To some extent	Not at all
Understand the ideas/ skills to be acquired from each unit through the learning outcomes.	54.84	41.29	3.87

As per the table 2.6, 54.84% of teachers in English responded that they could understand the ideas/skills to be acquired from each unit of English text book through learning outcomes to a great extent. But a considerable proportion (41.29%) responded that they could understand the ideas/ skills to be acquired only to some extent. About 3.87% of teachers opined that they couldn't understand the ideas/ skills to be acquired from each unit of English text book through the learning outcomes.

It is noteworthy that though more than half of the English teachers could understand the ideas/skills to be acquired from each unit through the learning outcomes a considerable number of teachers do not.

Learning outcomes according to the age-level of learners

The teachers were asked to opine whether the learning outcomes are given according to the age- level of the learners as 'To a great extent' or 'To some extend' or 'Not at all. The responses obtained from English teachers were tabulated and analyzed. The result showing the per cent of teachers who responded are given in Table 2.7

Table 2.7

Learning outcomes according to the age-level of learners

Statement	Response (Percentage)		
	To a great extent	To some extent	Not at all
Learning outcomes are given according to the age-level of the learners.	38.06	58.71	3.23

The table 2.7 shows that, 58.71% of teachers who teach English in class VII responded that learning outcomes are age specific only to some extent. 3.23% of teachers opined that the learning outcomes are not at all age specific. Only 38.06% opined that learning outcomes are age specific to a great extent level.

It can be concluded that more than half of the teachers feel that the learning outcomes given in different units of English textbooks of class VII are not according to the age level of learners

Learning outcomes helpful for self-evaluation

The teachers were asked to respond whether the learning outcomes imbibed in English textbook are helpful for self-evaluation. The responses were marked as ‘To a great extent’, ‘to some extent’, and ‘Not at all’. The responses obtained were tabulated and analyzed. The result showing the per cent of teachers who responded are given in Table 2.8

Table 2.8
Learning outcomes helpful for self-evaluation

Statement	Response (Percentage)		
	To a great extent	To some extent	Not at all
Learning outcomes are helpful for self-evaluation.	34.19	61.29	4.52

From Table 2.8 it is clear that 61.29% of teachers in English opined that learning outcomes are helpful only to some extent for self-evaluation. 4.52% of teachers opined that the learning outcomes are not at all helpful for self- evaluation. Only 34.19% of teachers in English opined that the learning outcomes are helpful for self- evaluation to a great extent.

It is noteworthy that majority of English teachers have the opinion that the learning outcomes are not helpful for self-evaluation.

Time bound completion of learning outcomes

The responses regarding the possibility of time bound completion of the learning outcomes is recorded as ‘Yes’ or ‘ No’. The responses are tabulated and analyzed. The percentage of responses is given in Table 2.9

Table 2.9

Time bound completion of learning outcomes

Statement	Response (Percentage)	
	Yes	No
Whether the time bound completion of the given learning outcomes is possible	34.84	65.16

From Table 2.9, it is found that majority (65.16%) of teachers reported that the time bound completion of learning outcome is not possible in the case of English text books of class VII. Only 34.84% of teachers agreed that time bound completion of learning outcomes is possible in English.

The reason for inability to complete the given learning outcomes

Majority of teachers reported that due to the following reasons they can't complete the learning outcome in a time bound manner.

- Excess content
- Lack of time
- Day celebrations and co- curricular activities.
- Involvement of teachers in different festivals and in census duties.
- Excess activities
- Presence of multilevel learners.

It is to be specially noted that majority of the teachers (65.16%) feel that the time bound completion of learning outcomes given in English textbook of class VII is not possible due to excess content, lack of time, day celebrations and co curricular activities, involvement of teachers in different festivals and census duties , excess activities and multilevel learners. Only some of the teachers opined that they can complete the learning outcomes in a stipulated time

Outcome focused methodology to ensure the level of learning proposed by RTE

The teachers were asked to record their opinion whether the outcome focused methodology is helpful in ensuring the attainment of level of learning envisaged by RTE. Their responses were recorded as 'Yes' or 'No'. The responses tabulated and analysed is given in Table 2.10.

Table 2.10

Outcome focused methodology to ensure the level of learning proposed by RTE

Statement	Responses (Percentage)	
	Yes	No
Outcome focused methodology helpful in ensuring the attainment of level of learning envisaged by RTE	83.23	16.77

Table 2.10 shows that a great majority of teachers (83.23%) opined that the outcome focused methodology is helpful in ensuring the level of learning envisaged by RTE. A minor group (16.77%) opined that outcome focused methodology is not helpful in ensuring the level of learning envisaged by RTE.

It is noteworthy that about 17% of teachers in English have the opinion that the outcome focused methodology is not helpful in ensuring the level of learning envisaged by RTE.

II. Learning Resources

The teachers were asked to mark their responses regarding the learning resources such as textbook, teacher text, other facilities in the school etc. The responses collected and analysed. The results are given under appropriate subheadings:.

Features of English Textbook

The teachers were asked to mark their opinion regarding different features of the textbook as 'Agree' and 'Disagree'. The responses obtained from 500 English teachers were tabulated and analysed. The result showing the percent of teachers agreed or disagreed to different features of text book are given in Table 2.11

Table 2.11
Features of English Text Book

Statements	Agree	Disagree
Content appropriate to the level of the learners	81.29	18.71
Conceptual Clarity	94.19	5.81
Adequate learning activities are given in the Text book to achieve the learning outcomes	94.19	5.81
Language appropriate to the level of learners	66.16	34.84
Pictures, lay-out, etc., arouse interest in the learners	95.48	4.52
Activities considering different level of learners	58.06	41.94
Adequate follow up activities are mentioned	87.10	12.90
Opportunity to foster the creativity of learners	94.19	5.81
Units are framed considering the possibilities of varied learning strategies	95.48	4.52
Concepts are arranged spirally	94.48	5.16
Slots for ICT are given for effective learning	95.48	4.52
Adequate activities are given in appropriate situations to enhance values and attitudes in learners	92.90	7.10

From the Table 2.11, it is found that among the different characteristics of the Textbook a great majority of teachers (greater than 90%) reported that units have conceptual clarity, adequate learning activities are given in the Text book to achieve the learning outcomes, pictures, lay out, etc. arouse interest in learners, opportunity is provided to foster the creativity of learners, units are framed considering varied learning strategies, have slots for using ICT for effective learning and concepts are arranged spirally. They also opined that adequate activities are given in appropriate situations to enhance values and attitudes in learners, opportunities are there to enhance creativity of learners and follow-up activities are mentioned.

Majority of teachers (70-89%) agreed that in English text book content are appropriate to the mental level of the learner.

But 66.16% of teachers opined that language used is appropriate to the level of learners and 58.06% of teachers opined that activities considering different levels of students are not present in the English text book.

Even though majority of teachers favour most of the characteristics of the English textbook, 41.94% of teachers opined that those activities considering different levels of students are not present in the English text book.

Responses of teachers for not agreeing with the features of the textbook

The teachers are not agreeing with the learning activities given in the textbook for differently abled students. The reasons reported are:

- Lack of activities for catering inclusive learning
- Lack of appropriate learning activities etc.

Most of the teachers do not agree that the language used in the TB is up to the level of the standard 7 students. The reasons reported are :

- Difficult vocabulary which leads to lack of interest in reading among students
- Lack of previous knowledge.

In the area appropriateness of the content for the intellectual level of the students, most of the teachers disagreed. The reason stated is:

- The content is above the level of the students of standard 7.

Most of the teachers disagree that the layout and the pictures of the TB are attractive for the learners. The reasons highlighted are:

- Lack of clarity
- Blurred pictures

A few teachers disagree that there is clarity in the content of the TB. The reasons are:

- Difficulty in grasping the content properly due to difficult vocabulary and language.
- Ambiguity in the content.

A few teachers disagree that there are sufficient learning activities for the attainment of learning outcomes. The reason pointed out is:

- Some of the learning activities are not focused on the desired outcome.

Some of the teachers could not agree that hints/links are provided for effective ICT enabled learning. The reason is:

- Provided links/hints in the TB are not accessible, suitable and appropriate.

A few teachers do not agree that there are ample opportunities for promoting creativity among students. The reason is:

- Lack of extended activities for enhancing creativity.

A few teachers are against the idea that sufficient no. of extended activities are included in the text.

A few teachers disagree that the learning resources are arranged in a spiraling manner.

The reasons pointed out are:

- The standard of the text activities in the first few units are above the standard of students
- Lack of previous knowledge.

A few teachers disagree that the possibilities of various teaching learning strategies are considered in the textbook. The reasons are :

- Lack of opportunity for field trip
- Lack of local resources like library, expert session, etc.

A few teachers could not agree that sufficient activities to promote values and attitudes are given in appropriate situation. The reasons are:

- The activities provided in textbook are from surrounding which the teachers are not familiar with.
- Lack of activities which cater the heterogeneous group of learners.

Features of Teacher Text: English

The teachers were asked to mark their responses regarding different features of the mathematics teacher text as 'Yes' or 'No'. The responses obtained from 500 English teachers were tabulated and analysed. The result showing the percentage of teachers agreed or disagreed to different features of teacher text is given in Table 2.12.

Table 2.12

Features of Teacher Text: English

Statements	Yes	No
1. Text book and the teacher text are complementary to each other	95.48	4.52
2. Hints given are helpful for transacting content	96.77	3.23
3. Helpful in preparing TM	96.77	3.23
4. Specific instructions are given for CE and TE	93.55	6.45
5. Additional information for the transaction of the lessons are given	89.68	7.10
6. Suitable tools for evaluation are given	93.55	6.45
7. Reference books and different web sites given in the teacher text are helpful for the transaction of lessons	92.9	7.10
8. Periods allotted for each unit are sufficient for its transaction	39.35	60.65
9. Clarifies right-based education as envisaged by RTE Act	93.55	6.45
10. Helps the teacher in attaining clarity in the general approach of the curriculum	96.77	3.23
11. Provides clarity in professional ethics	96.77	3.23

Table -2.12 revealed that, among the different aspects of the teacher text a great majority of teachers (90% and above) in English reported that the Text book and the teacher text are complementary to each other, hints given in the teacher text are suitable for transacting lessons, teacher text helps in preparing TM, specific instructions are given for TE and CE, suitable tools for evaluation are given, reference books and different web sites given in the teacher text are helpful for the transaction of lessons, it gives clear idea about the Right based education envisaged by RTE act, it helps the teacher in attaining clarity in the general approach of the curriculum, and it provides clarity in professional ethics to be practiced by the teachers.

According to majority of teachers (89.68%) , in teacher text additional information is provided for the suitable transaction of the lesson and instructions are given in teacher text for CE and TE.

It is noteworthy that 39.35% of teachers reported the division of periods for each unit is not suitable for its transaction.

From the results it can be inferred that, even though majority of teachers supports the teacher text of English in many aspects, one third of (39.35%) teachers reported that the division of periods given in teacher text is not suitable for its transaction.

Responses of the teachers for not agreeing with the features of teacher text(TT).

Most of the teachers disagree that the periods allotted for each unit are sufficient for the transaction of lessons. The reasons are:

- Overcrowded classrooms
- Excessive number of activities which is more than the content of the TB
- Lack of time for processing discourses.

A few teachers disagree that the given hints are helpful for the transaction of TB. The reasons are:

- Text related hints are not clear
- Lack of conceptual clarity in TT
- Lack of explanation for certain areas in the CB.

A few teachers could not agree that the hints given in the TT regarding the reference books and sites are helpful to the teachers in the transaction of TB. The reasons are:

- Lack of reference books suggested in the TT
- Lack of facility for visiting sites
- Lack of available of reference books.

A few teachers do not agree that proper instructions are given for CE and TE in the TT.

The reasons given are:

- Lack of proper training/awareness in CE
- Lack of time for recording CE
- Lack of proper instructions for CE related to each discourse
- Ambiguity in CE and TB.

Some of the teachers do not agree that TT is resourceful for the preparation of TM. The reasons are:

- Lack of additional resources
- Lack of sample teaching normal
- Lack of instructions for the preparation a TM.

A few teachers do not agree the teacher text and TB are complementary. The reasons pointed are:

- Lack of details in TT
- Lack of clarification of hard spots
- Lack of link talks and discussion points.

Some teachers disagree that additional information given for better transaction of TB is sufficient. The reason stated is:

- Clarification regarding the cultural historical backgrounds of the literacy pieces provided in the TB is not given in TT.

Some teachers could not agree that appropriate evaluation tools are provided in the TT.

The reason is

- Appropriate evaluation tools are not incorporated in TT.

Very few teachers disagree that there is clarity in Right based education envisaged by RTE in TT.

Facilities in the school

The teachers were asked to mark their responses regarding facilities in the schools as "Yes" or "No". The responses obtained from 500 English teachers were tabulated and analysed. The result showing the percent of teachers agreed or disagreed to different features of teacher text are given in Table 2.13

Table 2.13
Facilities in the school

Facilities	Percentage
a. Science lab	85.16
b. ICT	83.87
c. Science club	92.26
d. Science corner	59.35
e. Reading corner	85.81
f. Mathematics lab	62.58
g. Display board	74.19
h. Mathematics club	87.74
i. Mathematics corner	54.84
j. Social science lab	57.42
k. Language lab	87.10
l. Social science club	87.74
m. Social science corner	49.03

From the Table 2.13 it can be found that majority of teachers (above 80%) reported to have Science club, Social science lab, Language lab, Mathematics club, Science lab, Reading corner and ICT. Above 70 % of teachers reported that they have display board and in their school. Those teachers who reported to have Mathematics lab, Science corner, Social science lab, Mathematics corner and Social science corner ranges from 49 – 62%.

It is inferred that *majority of schools have facilities like Science club, Social science lab, Language lab, Mathematics club, Science lab, Reading corner and ICT But it is also found that Mathematic labs, Science corner, Social Science lab, Mathematics corner and Social science corner are present only in a minor percentage of schools only*

Provision of Instructional facilities available in text teacher text

The teachers were asked to report the provisions of utilizing facilities such as lab, library, ICT, display board, library, magazines clubs and corner. The results obtained are explained under 3 heads. They are-

1. Emphasis of facilities given in the content of the lesson,
2. Necessary instructions to utilize facilities are given in TT

3. Facilities that can be utilized in learning activities

Emphasis of facilities given in the content of the lesson in TB

The responses of teachers regarding the emphasis given to facilities in the content of the lesson in TB were analysed and the details are given in Table 2.14

Table 2.14

Emphasis of facilities given in the content of the lesson in TB

Facilities	To a great extent	To some extent	Not at all
Lab	43.87	51.61	4.52
Library	52.26	47.74	0.00
ICT	61.94	36.77	1.29
Display board	41.29	56.13	2.58
Periodicals	51.29	44.19	4.52
Club	58.71	35.48	5.81
Corner	48.71	48.06	3.23

Table 2,14 revealed that 61.94% and 58.71% of teachers reported that the content in the English text book has given importance to great extent level to utilise ICT and club while above 35% opined to some extent to these facilities. Above 50% of teachers reported that content in the text book has given importance to great extent to make use of periodicals and library while above 40% of teachers opined to some extent level. More than 40% of teachers reported that content in the English text book has given importance to great extent for utilizing facilities such as lab, display board and Corner while about 50% of teachers opined them to some extent level.

It can be seen from the results that the emphasis on instructional facilities in the content of the English textbook is still to be enhanced more.

Necessary instructions to utilize facilities in teacher text

The responses of teachers based on whether necessary instructions are given in teacher text were collected and analysed The details are given in Table 2.15

Table 2.15**Necessary instructions to utilise facilities in TT**

Facilities	To a great extent(%)	To some extent(%)	Not at all (%)
Lab	60.00	35.48	4.52
Library	53.23	46.77	0.00
ICT	64.19	35.81	0.00
Display board	53.87	43.55	2.58
Periodicals	49.36	46.77	3.87
Club	62.58	32.9	4.52
Corner	47.90	48.84	3.26

Table 2.15 revealed that more than 60% of teachers reported that suitable instructions are given in TT to make use of ICT, club and lab to a great level while above 30% opined that there are provisions for making use of these to some extent level. More than 50% of teachers reported that suitable instructions are given in TT to make use of library and display board to a great level whereas about 46.77% of teachers reported to some extent level. Almost same percentage (about 50%) of teachers reported that suitable instructions are given in TT to make use of periodicals and corner to great extent level as well as some extent level.

It is notable that nearly half of the teachers agree that necessary instructions to utilize facilities are given in the teacher text

Utilization of facilities in learning activities

The responses of teachers regarding the utilization of facilities in classroom transaction were analysed and the details are given in Table 2.16

Table 2.16**Utilisation of facilities in learning activities**

Facilities	To a great extent (%)	To some extent(%)	Not at all (%)
Lab	50.97	42.58	6.45
Library	45.19	53.52	1.29
ICT	52.58	44.84	2.58
Display board	49.68	45.8	4.52
Periodicals	50.32	45.81	3.87
Club	48.06	50.65	1.29
Corner	48.39	47.09	4.52

Table 2.16 revealed that more than 50% of teachers reported that the following facilities can be used for providing learning activities to great extent level: ICT (52.58%), lab(50.97%), Periodicals (50.32%) while more than 50% of teachers opined that they make use of library(53.52%), and club (50.65%) for Providing learning activities to some extent . Above 45% of teachers opined that the facilities such as display board (49.68%) , Club (48.06%) corner (48.39%) and library(45.19%) are used to a great extent level for providing learning activities. More than 42% of teachers reported that they make use of lab(42,58%),display board(45.8%),periodicals (45.81%) and corner(47.09%) to some extent level .

From this it can be inferred that the facilities such as lab, library, ICT, display board, magazine , club and corner are used in schools for providing learning activities to students.

Analysis regarding the limitations of the facilities available in the schools and suggestion for betterment of the same

The teachers who opined that the facilities are used only to some extent pointed out some limitations regarding each of the facilities and some suggestions to overcome it. They are:

Lab

Limitation

Regarding the limitation of Lab most of the teachers opined that the labs

- Don't have adequate facilities
- Lacked equipment
- Lack of fund, shelves, time and teachers.

Suggestions

- Provide more equipment
- Provide financial aid and more facilities
- Provide subject related CD's
- Provide training for making use of the facilities of the lab.

Library

Regarding the limitation of library teachers reported there are

- Lack of sufficient subject related reference books
- Not equipped with proper facilities like shelves, space for reading, and librarian
- Lack of contemporary literary pieces
- No separate room for library
- Lack of financial aid for the purchase of books and other equipment

Suggestions

Regarding the suggestion most of the teachers opined

- Need more reference books
- Need contemporary literary pieces
- Library with all modern facilities
- Financial aid for improving library facilities.
- A separate room for library.
- Consider aided schools also for the financial aid form the part of the govt., SSA, RMSA.

ICT

Limitation

- Lack of sufficient computer
- Overcrowded classroom
- Lack of subject related CDs
- Lack of proper training for handling ICT
- Lack of internet, projector and separate room

Suggestions

- Computers both for UP and HS
- Financial support
- Aid for buying computers
- Separate smart classroom
- ICT enabled classrooms
- Give adequate ICT training.
- Subject related CD's and projectors.

Display Board

limitations

While analyzing the limitations regarding the display board most of the teachers opined that there are:

- No display boards
- Display boards are damaged and not replaced.

Suggestions

Twenty teachers suggested that they need:

- Display board
- Financial aid.
- Periodicals

Limitations

Considering the limitations in the availability of periodicals in schools most of the teachers opined that they need :

- Subject specific magazines and publications
- Financial aid for buying magazines
- Free periodicals to all govt./aided school.

Club

Limitations

Regarding the limitations for the functioning of club a great no of teachers reported the following:

- Lack of time
- Lack of separate room and space for club function
- Lack of proper training to create awareness among the teachers about the functioning of the club.

Suggestions

A great no of teachers suggested that

- Allot separate period for club activities
- Reduce the content and activities in the TB to make the club activities more effective.

Corner

While analyzing the limitation of the reading corner in school, great no of teachers reported that in most of the schools

- The classrooms are not spacious enough for the functioning of reading corner
- Lack of sufficient books and furniture some other limitation.

Resources other than the text book and the teacher text for ensuring learning outcomes

The responses regarding the resources other than TB and TT to ensure learning outcomes were collected and analysed the details being given in the table 2.17

Table 2.17

Resources other than the text book and the teacher text for ensuring learning outcomes

Resources	Percentage
Reading materials prepared by the teacher	89.03
Local resources	71.61
Resource CD (video, audio)	82.58
Pictures	92.26
Tables	70.32
Diagrams	41.94
Reports	65.16
Worksheets	85.81
Materials given by local self-government and other agencies	48.39
Others (specify)	9.03

From the Table 2.17 it is found that a great majority of teachers reported that they use pictures (92.26%) other than TB and TT. Majority of teachers (70%-89%) reported that they are using remedial materials prepared by the teachers themselves, worksheets, tables and local resources. Reports are used by 65.16% of teachers, reports by 62.66% of teachers and materials given by local government and other agencies by 48.39% and diagrams by 41.94% of teachers.

The Teachers were asked to suggest extra materials other than the enlisted materials in the questionnaire to ensure learning outcomes. The suggestions given by them are listed below.

Most of the teachers opined that they use

- magazines,
- field trips
- paper cutting
- gifts for encouragements
- daily news quiz

From the analysis it can be inferred that a number of materials other than TT and TB are used by teachers for teaching and learning.

Adaptation for the CWSN

Analysis regarding the adaptation of text book for CWSN students are being made and its results recorded below.

Table 2.18
Adaptation for the CWSN

Materials	Responses in Percentage
a. Text book	58.06
b. Teacher text	57.42
c. Infrastructure	50.32
d. Resource teachers	72.26

It is found from Table 2.18 that majority of teachers reported that resource teachers(72.26%) helps them in the adaptation for the CWSN and the same by text book(58.06%), teacher text(57.42%) and infrastructure(50.32%).

From this it can be inferred that resource teachers mainly provide help in the adaptation of CWSN.

Teaching learning resources in the area of Arts-

The responses of teachers regarding the teaching learning resources in the area of Arts, were analysed and presented in table 2.19

Table 2.19
Teaching learning resources in the area of Arts

Statements	Art		
	To a great extent(%)	To some extent(%)	Not at all (%)
Suitable situations for transaction are given in the textbook	54.84	38.71	6.45
Instructions are there to frame necessary resources in the TT of different subjects	54.22	44.52	1.29
The school is well equipped to carry out these activities	21.29	64.52	14.19
Able to make available local resources in this areas	20.00	63.87	16.13
Able to make use of teacher text for these areas	44.52	49.03	6.45
Able to make use of activity books	44.52	50.32	5.16

Based on the table 2.19 it is found that 54.84% of teachers opined that in the English text book there are slots appropriate for conceptual transaction for Art education to great extent dimension while 38.71% teachers opined to some extent level. About 54.22% of teachers reported that instructions for framing necessary resources for art education are there in TT to a great extent level while 44.52% to some extent level. Above 63% of teachers opined that suitable tools and materials are in the schools for the given area and local resources could be made available in this area to some extent level whereas about 20% teachers opined to great extent level. It is significant to note that about 15% of teachers reported that suitable tools and materials are not present in the schools for the given area local resources are not at all available in the school. It is also found that 49.03% of teachers opined that TT for this area is effectively used in schools to some extent level whereas 44.52% of teachers opined to great extent level. Almost equal percentage (50.32%) of teachers opined that activity books are used effectively to some extent level (44.52%) to great extent level.

It can be inferred that in the teaching learning resources in the area of art, are present only to some extent and the main resources being text book and teacher text

Art

Limitations

Majority of teachers pointed out the following limitations in the area of Art

- No special teachers to deal with art
- Lack of training
- Lack of time
- Lack of financial support
- Lack of materials
- Opposition from certain religions section.

Suggestions

Majority of the teachers suggested

- Appoint specialized teachers for art.
- Provide support from LSG.
- Conduct training programmes for other subject teachers to equip them to handle Art classes.

It can be inferred that teaching learning resources in the area of art are present only to some extent except teacher text and text book . The limitations pointed out by teachers are lack of teachers who are specially trained in art education in schools and non availability of financial support, training , lack of learning materials . Teachers opined that we can overcome this by appointing specialized art teachers and by providing financial aid to schools

Teaching learning resources in the area of sports and health

The responses of teachers regarding the teaching learning resources in the area of sports and health, were analysed and presented in table 2.20

Table 2.20

Teaching learning resources in the area of sports and health

Statements	Sports-health		
	To a great extent(%)	To some extent(%)	Not at all (%)
• Suitable situations for transaction are given in the textbook	44.19	53.87	1.94
• Instructions are there to frame necessary resources in the TT of different subjects	45.16	49.68	5.16
• The school is well equipped to carry out these activities	30.32	61.94	7.74
• Able to make available local resources in these areas	30.3	51.61	18.06
• Able to make use of teacher text for these areas	43.23	49.03	7.74
• Able to make use of activity books	41.61	41.94	5.81

Based on the Table-3.20 it is found that 53.87% of teachers opined that slots appropriate for conceptual transaction are provided in the TT for Sports and Health to a some extent dimension while 44.19% teachers opined to great extent level. About 49.68% of teachers reported that instructions for framing necessary resources for Sports and Health are there in TT to a some extent level and 45.16% of teachers to some extent level. Only 30.32% teachers opined that suitable materials related to Sports and Health are available in the school to great extent while 61.94%% reported that resources are available to some extent level. Very few (18.06%) reported that local resources are not at all available in their schools while 51.61% reported it to some extent level. About 49.03% of teachers reported that they make use of TT for the area to a some extent level while about 43.23% to great

extent level. About 41.94% of teachers reported that they make use of activity book to a some extent level whereas 41.61% teachers opined to great extent level.

It can be inferred that teaching learning resources in the area of sports and health are present in the TT only to some extent level.

Analysis of limitations and qualitative suggestions teachers have made about Sports and health

Limitations

With regard to sports majority of teachers reported that there are:

- No physical education teachers to handle sports.
- Lack of sports equipment
- Lack of ground
- Lack of fund
- Lack of time.

Suggestion

Majority of teachers suggested to

- Appoint physical education teachers at the earliest
- Local self government should support the teachers
- Lack of financial aid.

Health

Limitations

Regarding the analysis of health most of the teachers opined that they lack

- Specialized teachers to handle the area 'health'
- Lacked training to handle the Health Education
- Lack of awareness regarding Health Education

Suggestions

- provide nurses/health worker in school
- provide training and awareness classes to all teachers

- Give training to teachers in Yoga classes

It can be inferred that teaching learning resources in the area of sports and health are present in the TT only to some extent. The limitations pointed out by teachers are lack of teachers who are specially trained to handle sports and health education in schools and lack of proper awareness on sports health and lack of training.. Teachers opined that we can overcome this by appointing specialized work experience and by providing training and awareness programmes to teachers in schools and providing service of nurses and health workers in schools

Teaching Learning resources in the area of Work Experience

The responses of teachers regarding the teaching learning resources in the area of work experience, were analysed and presented in table 2.21

Table 2.21

Teaching learning resources in the area of work experience

Statements	Work experience		
	To a great extent (%)	To some extent(%)	Not at ali (%)
• Suitable situations for transaction are given in the textbook	43.23	52.90	3.87
• Instructions are there to frame necessary resources in the TT of different subjects	40.65	55.48	3.87
• The school is well equipped to carry out these activities	29.03	53.55	17.42
• Able to make available local resources in these areas	30.97	54.19	14.84
• Able to make use of teacher text for these areas	41.93	50.97	7.10
• Able to make use of activity books	45.16	49.03	5.81

Based on the Table-2.21 it is found that 52.90% of teachers opined that in the English text book there are slots appropriate for conceptual transaction of area related to work experience are provided in the TT to a some extent dimension while 43.23% teachers opined to great extent level. About 55.48% of teachers reported that instructions for framing required resources are provided in TT of different subjects to some extent level and 4065% teachers to a great extent. Only 29.03% teachers opined that suitable materials related to art are available in the school to great extent while 53.55% reported that resources are available to some extent level. Very few (17.42%) reported that suitable materials are not in the schools for the given area. Very few (14.84%) reported that local

resources are not at all available in their schools while 54.19% reported it to some extent level. About 50.97% of teachers reported that they make use of TT for the area to some extent level while 41.93% to great extent level. About 49.03% of teachers reported that they make use of activity book to some extent level and 45.16% teachers opined to great extent level.

It can be inferred that teaching learning resources in the area of work experience are present in the TT only to some extent level.

Analysis of limitations and qualitative suggestions regarding work experience

Limitations

Most of the teachers reported the following limitations in relation to work experience in schools

- Lack of specialized teachers is a major limitation in promoting WE in schools.
- Lack of materials for it
- Lack of teachers
- Lack of time.

Suggestions

Suggestions offered by teachers are as follows:

- Appoint Work experience teachers
- Allot fund by the LSG to buy materials for WE
- Provide training for all teachers.

It can be inferred that teaching learning resources in the area of work experience are present in the TT only to some extent. The limitations pointed out by teachers are lack of teachers who are specially trained in work education in schools and non availability of raw materials to give training to learners. Teachers opined that we can overcome this by appointing specialized work experience and by providing financial aid to schools to buy raw material

Products of the learning activities

The responses of teachers related to the products of learning activities are analysed and the results are presented in table 2.22

Table 2.22

Details of the product of learning activities

Item	Yes(%)	No (%)
a. Evaluate the products	98.06	1.94
b. Encourages the outstanding products	99.35	0.65
c. Utilize the chance for the re-use of the products	94.84	5.16
a. Conduct exhibition of the products	93.03	6.7

Table 2.22 reveals that regarding the products of the learning activities a great majority of teachers (greater than 90%) reported that they evaluated the products , encourage the learners outstanding products, utilized the possibility of re-using the products and conducted exhibition of the products .

Analysis regarding the showcasing of classroom product as part of learning activities

Other than the enlisted items a few teachers reported that they conduct exhibitions at school level, BRC, CRC, level and competition like CRC, BRC, State, Panchayath level, School assembly and cultural programmes.

It is inferred that majority of teachers evaluate the products of learners, encourage learner's outstanding performance and reuse the products in class. It is significant to note that only a few teachers conduct exhibition of learner's products in school assembly, cultural programs, BRC/ CRC level, Panchayath level and state level .

III. Learning process

The teachers were asked to mark their responses regarding the various learning processes that take place inside the classrooms. The responses of the Teachers, in this section, for the Quantitative items were recorded as Yes / No, and Always/Sometimes/Not at all. The Qualitative responses were noted and listed and the responses were collected and analysed. The results are given under appropriate heads:

Difficulty experienced while planning learning activities in the classrooms

The responses obtained from English teachers were analysed and the result showing the percentage of teachers who responded is given in Table 2.23

Table 2.23**Difficulty experienced while planning learning activities**

Statement	Responses in Percentage	
	Yes	No
Difficulty experienced while planning learning activities	63.23	36.77

It is seen from the Table 2.23 that a majority of English teachers (63.23%) of Std VII reported that they experienced difficulties while planning learning activities whereas 36.77% mentioned that they did not experience any difficulty.

From this, it can be inferred that *majority of the English teachers of Std VII experienced difficulties while planning learning activities.*

Thrust areas where difficulty is experienced while planning learning activities

The teachers, who indicated that they experienced difficulties while planning the learning activities, were asked to indicate their responses regarding the thrust areas where difficulty is experienced while planning learning activities. The responses were analysed and the results are given in Table 2.24

Table 2.24**Thrust areas where difficulty is experienced while planning learning activities**

Thrust area	Responses in Percentage
a) Learning Outcomes	16.13
b) Integrating arts, sports, health and work experience	57.42
c) Life skills	20.65
d) Utilising learning resources	13.55
e) Slots for ICT	32.26
f) Community bound activities	25.16
g) Values/attitudes	10.97
h) Learning of the different levels of learners	58.06
i) Continuous evaluation	23.23
j) Areas to develop social commitment	19.35

From the Table 2.24 it is observed that the thrust areas where the English Teachers of Std VII faced difficulties are 'Learning of the different levels of learners (58.06%), 'Integrating arts, sports, health and work experience (57.42%), Slots for ICT (32.26%), Community bound activities (25.16%), Continuous evaluation (23.23%), Life Skills (20.65%), Areas to develop social commitment (19.35%), Learning Outcomes (16.13%), Utilising learning resources (13.55%) and Values/ Attitudes (10.97%).

Therefore it can be inferred that although the English Teachers experienced difficulty in various thrust areas, 'Learning of the different levels of learners', and 'Integrating arts, sports, health and work experience' are two thrust areas that posed difficulty to majority of English Teachers who indicated that they experienced difficulties while planning the learning activities.

Analysis based on the remedial measures suggested by teachers to overcome difficulties experienced by them in various areas

The Teachers were asked to suggest remedial measures to overcome difficulties experienced by them in the various areas mentioned above. The suggestions given by them are:

- a. *Learning Outcomes:*
 - Previous knowledge has to be checked in order to ensure learning outcomes within stipulated time.
 - The learning outcomes are to be made more clear and simple in the teacher text.
- b. *Integrating arts, sports, health and work experience:*
 - Expert teachers in the field of arts, sports and work experience need to be appointed.
 - Separate text is needed for arts, sports and work experience.
- c. *Life skills:*
 - Along with class room teaching, children should be exposed to basic life skills.
 - The school need to provide facilities for agriculture.
 - The teachers have to ensure that whether the learners are handling situations related to life skills.
- d. *Utilizing learning resources:*
 - Allot separate period for IT in English.
 - Equipment for providing special coaching are to be distributed in schools.
 - Activities for fixing reading and writing are to be provided in the teacher text.
 - Activities based on dialogue and communication in the text book are to be included.

- The instructional activities for different levels of learners are to be provided.
 - Provide materials for work experience. . .
 - Due importance should be given to field trips.
 - The text book and teacher text should give more activities.
- e. *Slots for ICT:*
- ICT training should be provided to all teachers ensuring hands on experience
 - Classrooms are to be converted into smart class rooms.
 - Internet facilities are to be made available.
 - Required number of computers and their proper maintenance should be ensured.
- f. *Community bound activities:*
- Provide opportunities to organize and involve in social activities.
- g. *Values/attitudes:*
- Value based stories and poems are to be included in the text books.
- h. *Learning of the different levels of learners:*
- Separate text books and materials should be prepared for differently abled.
 - Simple activities suitable for different levels of learners should be provided in the text book.
 - Few teachers suggested that two text books are to be provided for class VII English
 - Seek the assistance of of gifted learners for helping the differently abled
 - More resource teachers are to be appointed.
 - Extra talk and expert talk to be arranged
 - The necessary hints for helping the differently abled should be provided in the teacher text.
 - Separate classes are to be provided to the differently abled in addition to the regular classes
 - Separate hand book and work sheets are essential for these learners.
- i. *Continuous evaluation:*
- Unit tests should be conducted frequently.
 - CE is to be conducted term-wise.
- j. Other difficulties experienced by them are:-
- Provide freedom for teachers to prepare the teaching module according to the level of the students.
 - Agricultural activities are to be included.

Ensuring the development of process skills in learners through learning process

The teachers were asked to mark their Responses regarding ensuring the development of process skills in learners through learning process. The responses were analysed and the result showing the percentage of teachers who opined regarding the item is given in Table 3.33.

Table 2.25**Ensuring the development of process skills in learners through learning process**

Statement	Responses in Percentage		
	Always	Sometimes	Not at all
Ensure the development of process skills in learners through learning process	9.68	84.52	5.81

It is evident from the table 2.25 that majority of English teachers (84.52%) of Std VII reported that they sometimes ensured the development of Process skills in the learners through learning process, whereas only 9.68% could always ensure it in the class. 5.81% of English Teachers responded that they were not at all able to ensure the development of Process skills in the learners through the learning process.

From this, it can be inferred that *although majority of English teachers of Std VII (84.52%) sometimes ensured the development of Process skills in the learners through learning process, only 9.68% could always ensure it in the class. It is notable that few teachers (5.81%) not at all ensured the development of process skills in the learners through the learning process.*

Planning and implementing learning activities to attain conceptual clarity through multi-sensory experiences

The teachers were asked to mark their Responses regarding planning and implementing learning activities to attain conceptual clarity through multi-sensory experiences. The responses obtained from the English teachers were analysed and the result is given in Table 2.26

Table 2.26**Planning and implementing learning activities**

Statement	Responses in Percentage	
	Yes	No
Plan and implement learning activities to attain conceptual clarity through multi-sensory experiences	85.16	14.84

It is seen from the table 2.26 that a great majority of English teachers (85.16%) of Std VII reported that they planned and implemented learning activities to attain conceptual clarity through multi-sensory experiences, whereas 14.84% did not do so.

From this, it can be inferred *that Majority of English Teachers of Std VII planned and implemented learning activities to attain conceptual clarity through multi-sensory experiences. However 14.84% of the Teachers did not do so.*

Appropriateness of the curriculum in enabling learners to apply the knowledge

The teachers were asked to mark their responses regarding appropriateness of the curriculum in enabling learners to apply the knowledge acquired through the learning process in their daily life. The responses obtained from the English teachers were analysed and the result showing the percentage of teachers who responded is given in Table 2.27

Table 2.27

Appropriateness of the curriculum in enabling learners to apply the knowledge

Statement	Responses in Percentage	
	Yes	No
Curriculum is appropriate for enabling learners to apply the knowledge acquired through learning process in their daily life	89.68	10.33

It is evident from the table 2.27 that a great majority of English teachers (89.68%) of Std VII reported that curriculum is appropriate for enabling learners to apply the knowledge acquired through learning process in their daily life, whereas 10.33% did not agree to the statement.

From this, it can be inferred that *although the curriculum is considered appropriate for enabling learners to apply the knowledge acquired through learning process in their daily life by majority of English Teachers of class VII, more than one-tenth of the English Teachers considered otherwise.*

Making use of the learning strategies appropriate to the content

The teachers were asked to mark their Responses regarding making use of the learning strategies appropriate to the content. The responses obtained from the English teachers were analysed and the result is given in Table 2.28

Table 2.28**Making use of the learning strategies appropriate to the content**

Statement	Responses in Percentage	
	Yes	No
Make use of the learning strategies appropriate to the content	83.87	16.13

The table 3.36 shows that majority of English teachers (83.87%) of Std VII reported that they made use of the learning strategies appropriate to the content, whereas 16.13% did not.

From this, it can be inferred that *majority of English Teachers of Std VII made use of learning strategies appropriate to the content. However 16.13% of English Teachers could not*

Difficulties experienced while making use of learning strategies

The teachers, who indicated that they experienced difficulties while making use of learning strategies that are appropriate to the content, were asked to indicate their responses regarding the strategies that pose difficulties to them. The responses were analysed and the results are given in Table 2.29

Table 2.29**Difficulties experienced while making use of learning strategies**

Strategies that pose difficulty	Responses in Percentage
Investigative learning	7.74
Method of concept acquisition	3.23
Inductive thinking	5.16
Meta cognition	8.39
Co-operative leaning	2.58
Collaborative learning	3.87
Critical thinking	5.16

From the table 2.29 it is observed that the learning strategies that were found difficult by the English Teachers of Std VII to use according to the content, in the descending order of difficulty were Meta cognition (8.39%), Investigative learning (7.74%), Inductive thinking (5.16%), Critical thinking (5.16%), Collaborative learning (3.87%), Method of concept acquisition (3.23%) and Co-operative leaning (2.58%).

For Teachers in English, the learning strategies - Investigative learning and Meta cognition were the most difficult learning strategies to use appropriate to the content.

Some teachers in English also suggested that they felt difficulty in adopting the strategy - Socialisation

Difficulties experienced while making use learning strategies

The teachers were asked to express their responses regarding the reasons for experiencing difficulty while making use of appropriate learning strategies. The responses were analysed and the results are given in Table 2.30

Table 2.30

Difficulties experienced while making use of learning strategies

Reason	Responses in Percentage
a. Lack of time	67.74
b. Practical difficulty	33.55
c. Lack of facilities/materials	41.29
d. Lack of training	10.32

From table 2.30 it is observed that the reasons that were attributed by the English Teachers for experiencing difficulty while making use of appropriate learning strategies as evident from the table, were lack of time (67.74%), lack of facilities/materials (41.29%), practical difficulty (33.55%) and lack of training (10.32%).

Therefore it can be inferred that '*Lack of time*' and '*Lack of facilities/materials*' were the major reasons that were mentioned by the English Teachers of Std VII who indicated that they faced difficulty while making use of appropriate learning strategies.

Analysis regarding the reasons for experiencing difficulties in using appropriate strategies

Teachers also reported the following reasons for experiencing difficulty in utilising suitable learning strategies:

- Difficulty in considering backward learners
- Small size of class rooms

Planning and implementing learning activities to overcome the constraints of slow learners

The teachers are asked to mark their responses regarding planning and implementing learning activities to overcome the constraints of slow learners. The responses were analysed and the result is given in Table 2.31

Table 2.31

Planning and Implementing learning activities to overcome the constraints of slow learners

Statement	Responses in Percentage	
	Yes	No
Plan and Implement learning activities to overcome the constraints of slow learners	49.03	50.97

As seen from the table 2.31 only less than half of English Teachers of Std VII (49.03%) planned and implemented learning activities to overcome the constraints of slow learners, whereas more than half of them (50.97%) did not.

Hence it can be inferred that *Majority of Teachers did not plan and implement learning activities to overcome the constraints of slow learners.*

Reasons for experiencing difficulty while planning and implementing learning activities to overcome the constraints of slow learners

The teachers, who indicated that they experienced difficulties while planning and implementing learning activities to overcome the constraints of slow learners, were asked to indicate their responses regarding the difficulties they experienced. The responses were analysed and the results showing the percentage of teachers, who marked the various difficulties, are given in Table 2.32

Table 2.32

Reasons for experiencing difficulty while planning and implementing learning activities to overcome the constraints of slow learners

Reason for Difficulties	Responses in Percentage
To plan and implement the activities for different levels of learners	29.03
Remedial Teaching	14.84
Lack of specially prepared learning materials	39.35
Lack of time	38.06

From the table 2.32 it is interpreted that the reasons reported by the English Teachers for difficulties in planning and implementing learning activities to overcome the constraints of slow learners were lack of specially prepared learning materials (39.35%), lack of time (38.06%), ‘difficulties in planning and implementing activities for different levels of learners (29.03%) and difficulties in remedial teaching (14.84%).

Therefore it can be inferred that *‘Lack of specially prepared learning materials’ and ‘Lack of time’ were the reasons that were mentioned by more than one third of the English Teachers who indicated that they experienced difficulty while planning and implementing learning activities to overcome the constraints of slow learners.*

Other difficulties in planning activities to overcome the constraints of slow learners are: present TB is not suitable for slow learners, overcrowded classrooms, boredom of gifted learners, lack of cooperation , lack of interest of learners

Ensuring attainment of learning outcomes in different levels of learners

The teachers were asked to mark their responses regarding ensuring attainment of learning outcomes in different levels of learners. The responses obtained from the English teachers were analysed and the result s is given in Table 2.33.

Table 2.33

Ensuring attainment of learning outcomes in different levels of learners

Statement	Responses in Percentage	
	Yes	No
Ensure attainment of learning outcomes in different levels of learners	31.61	68.39

As evident from the Table 2.33 that 68.39% of Teachers did not ensure the attainment of learning outcomes in different levels of learners, whereas only 31.61% were able to do so.

Hence it can be inferred that *Majority of the English Teachers did not ensure the attainment of learning outcomes in different levels of learners.*

Analysis of responses regarding difficulties in ensuring learning outcomes satisfactorily in different level of learners

Teachers in English also reported the following difficulties in ensuring learning outcomes satisfactorily in different levels of learners.

- Time is not sufficient for exploring the possibilities necessary adaptations.
- The extra duty of teachers is a major issue.
- There is also lack of suitable learning materials.
- Parents are not providing enough support. Most of the parents are illiterate.
- The class management is also very difficult.
- There is lack of specially prepared learning materials.
- Difficulty for the teachers to prepare special learning materials.
- Difficulty in providing the learning materials according to the level of the learners.
- Lack of space
- lack of interest and lack of proper involvement of learners a in the learning process
- Lack of cooperation from the part of the learners
- There is lack of specially trained teachers which makes planning of the lessons difficult.
- Lack of experience of teachers in planning the activities.
- Special training is also essential for tackling the challenging learning activities.
- The gifted learners couldn't be attended properly while focussing on the differently abled.
- The presence of deaf and dumb students creates communication problems.
- Lack of Individual care, special time and separate process for handling differently abled.
- The heaviness of syllabus
- Lack of suitable tools and other infrastructure
- Overcrowded class room
- Lack of special teachers for handling the mentally backward learners.

- Continuous absence of the differently abled.
- Lack of text books and lack of basic skills of reading and writing.
- Difficulty to conduct evaluation in these learners.
- The heterogeneity of these learners regarding their level of understanding
- Many learners have serious learning disabilities which cannot be properly tackled.
- Many learners are very poor in English.
- Many learners are lacking the prior knowledge.

Implementation of learning activities to enrich the abilities of gifted learners

The teachers were asked to mark their responses regarding implementation of learning activities to enrich the abilities of gifted learners. The responses obtained from the English teachers were analysed and the result is given in Table 2. 34.

Table 2.34

Implementation of learning activities to enrich the abilities of gifted learners

Statement	Responses in Percentage	
	Yes	No
Implement learning activities to enrich the abilities of gifted learners	77.42	22.58

It can be seen from the table 2.34 that 77.42% of teachers implemented learning activities to enrich the abilities of gifted learners, whereas 22.58% did not.

Therefore it can be inferred that *although majority of teachers implemented learning activities to enrich the abilities of gifted learners, 22.58% of them did not do so.*

Difficulties experienced in the implementation of learning activities to enrich the abilities of gifted learners

The teachers, who indicated that they experienced difficulties in the implementation of learning activities to enrich the abilities of gifted learners, were asked to indicate their responses regarding the difficulties they had. The responses were analysed and the results are given in Table 3.43

Table 2.35

Difficulties experienced in the Implementation of learning activities to enrich the abilities of gifted learners

Reason for Difficulties	Responses in Percentage
Difficulty in planning challenging learning activities	17.42
Lack of suitable learning resources	9.68
Lack of time	10.32
Lack of training	4.52

As per the table 2.35 it is interpreted that the reasons that were attributed by the English Teachers for not being able to implement learning activities to enrich the abilities of gifted learners effectively were ‘difficulty in planning challenging learning activities (17.42%), lack of time (10.32%), lack of suitable learning resources (9.68%) and lack of training (4.52%).

Therefore it can be inferred that *difficulty in planning challenging learning activities and ‘lack of time’ were the major difficulties that were mentioned by English Teachers in the implementation of learning activities to enrich the abilities of gifted learners.*

Analysis based on remedial measures for overcoming difficulties in enriching the abilities of gifted learners

Remedial measures suggested by English Teachers for tackling the difficulties in enriching the abilities of gifted learners are listed below:

- Provide suitable materials and provide training
- Encourage the talented and utilize their talents to other students
- Include more activities in the text book
- Avoid loss of working days
- Decrease the number of outdoor activities
- Specify the activities for the gifted in the teacher text

Application of suitable learning strategies to ensure maximum participation of all learners

The teachers were asked to mark their responses regarding applying suitable learning strategies to ensure maximum participation of all learners. The responses obtained

from ... English teachers analysed and the result showing the percentage of teachers who opined regarding the item is given in Table 2.36

Table 2.36

Application of suitable learning strategies to ensure maximum participation of all learners

Statement	Responses in Percentage		
	Always	Sometimes	Not at all
Apply suitable learning strategies to ensure maximum participation of all learners	17.42	80.00	2.58

The table 2.36 revealed that majority (80%) sometimes applied suitable learning strategies to ensure the participation of all learners whereas 17.42% were always able to it apply them. 2.58% were not at all able to apply the learning strategies which ensured the participation of all learners.

Therefore it can be inferred that *although a majority of English Teachers of Std VII sometimes ensured the maximum participation of all learners, only 17.42% always ensured full learner participation.*

Transaction of the content in a learner friendly manner

The teachers were asked to mark their responses regarding transaction of the content in a learner friendly manner. The result showing the percentage of teachers who opined regarding the item is given in Table 2.37

Table 2.37

Transaction of the content in a learner friendly manner

Statement	Responses in Percentage		
	Always	Sometimes	Not at all
Transact the content in a learner friendly manner	50.32	46.45	3.23

From the table 2.37 it is understood that more than half of the English Teachers of Std VII (50.32%) always transacted the content in a learner friendly manner, whereas nearly half of them (46.45%) sometimes transacted the content in a learner cantered way. 3.23% of the teachers were not at all learner friendly.

Hence it can be inferred that *although more than half of English Teachers of Std VII always transacted the content in a learner friendly manner, 46.45% were sometimes learner friendly in content transaction. It is startling to note that that few English Teachers were not at all learner friendly in content transaction.*

IV. Evaluation

Clarity in continuous Evaluation

The responses from teachers regarding their clarity in Continuous Evaluation(CE) were collected and analyzed. The details are given in table 2.38

Table 2.38

Clarity in Continuous Evaluation Strategies

Aspect	Responses in Percentage	
	Yes	No
Clarity in continuous assessment	88.39	11.61

From the table 2.38, it is found that majority of teachers (88.39%) reported that they got a clear idea about continuous Evaluation. At the same time 11.61% of teachers responded negatively.

Even though majority of teachers got a clear idea about continuous Evaluation, about 11.61% teachers did not get the clarity.

Areas of CE which need clarity for teachers

The data based on areas which need clarity were collected from teachers who didn't get a clear idea about CE (11.61%) and were subjected to analysis. The details are given in table 2.39

Table 2.39

Responses of teachers regarding areas which need clarity

Area	Responses in Percentage
Assessment of Learning Process	7.74
Portfolio Assessment	3.87
Unit Assessment	4.52
Recording	2.58

Based on Table 2.39 very few teachers in English (7.74%) reported that they need clarity in process evaluation. It is followed by Unit Assessment, Portfolio Assessment, and Recording.

Suggestions put forward by teachers for improvement of in the area of continuous evaluation are

Process evaluation-

- Availability of tools to be ensured
- Different discourses for each unit should be evaluated
- Need effective training
- Provide suggestions for timely evaluation

Portfolio evaluation

- More training is needed based on the products of child
- Familiarize Portfolio and Provide models
- and reduce overload

Unit evaluation –

- Conduct at the same time when the unit is transacted
- Provide tools
- Clarification in training programme

Grading

- Made changes in grades when concepts are expressed through language
- Give score along with grade
- Provide indicators
- Grading through making score

Marking

- Planning uniform strategies for marking
- Correct time

Even though majority of teachers got a clear idea about continuous assessment, a significant number of teachers need clarity in all the areas in Continuous Evaluation. They feel difficulty in evaluation due to overload of activities and subjects and they suggests measures like effective training, effective tools, timely evaluation and soon

Continuous Evaluation to ensure learning and to provide adequate support to learners

The data based on ability to carry out CE to ensure learning and to provide adequate support to learners were collected from teachers and were subjected to analysis. The details are given in table 2.40

Table 2.40

Continuous Evaluation to ensure learning and to provide adequate support to learners

Aspect	Responses in Percentage	
	Yes	No
Ability to ensure learning and to provide support to learners though CE	60	40

From the table-2.40 it is found that majority of teachers in English (60%) are able to ensure learning and to give support to the learners while carrying out CE . At the same time 40% teachers reported that they could not.

From the analysis it is clear that about 40% of teachers are not able to ensure learning and to provide support to learners though CE

Practical difficulties encountered while carrying out Continuous Evaluation

The data based on ability to carry out CE to ensure learning and to provide adequate support to learners were collected from teachers who faced practical difficulties and were subjected to analysis. The details are given in table.2.41

Table:2.41

Practical difficulties encountered while carrying out Continuous Evaluation

Area	Responses in Percentage
Lack of awareness	10.97
Lack of time	26.45
Complexity of learning process	16.77
Overcrowded class rooms	15.48

Analysis of table 2.41 revealed that 26.45% of teachers reported that Lack of time for CE was their major practical difficulty to ensure learning and providing support to learners while carrying out CE. The other difficulties reported are - complexity of learning process, overcrowded class rooms and lack of awareness.

The above mentioned findings highlight the need for making necessary arrangements to overcome practical difficulties likely to be encountered while carrying out CE.

Carrying out the learning process and evaluation simultaneously

The data based on responses of teachers regarding the simultaneous of learning process and evaluation were collected and analyzed. The details are given in table 2.42

Table 2.42
Carrying out the learning process and evaluation simultaneously

Aspects	Responses in Percentage	
	Yes	No
Carrying out the learning process and evaluation simultaneously	70.97	29.03

From the table 2.42 it is found that majority of teachers in English (70.97%) reported that they could blend both learning process and the continuous evaluation process effectively, while 29.03% of teachers reported that learning process and continuous evaluation process are not taking place simultaneously.

It is clear that even though majority of teachers are able to blend learning process and evaluation, a significant number of teachers are not able to undertake the task successfully.

4a. Practical difficulties encountered while carrying out learning process and evaluation simultaneously

The data based on responses of teachers regarding the practical difficulties encountered for blending of learning process and evaluation were collected and analyzed. The details are given in table 2.43

Table 2.43
Practical difficulties in learning process and evaluation

Practical difficulties	Responses in Percentage
Lack of proper planning	12.90
Lack of awareness about suitable strategies	5.81
To give more emphasis to learning process than evaluation	10.97

Table 2.43 shows that 12.90% of teachers responded that the difficulty to carry out learning process and evaluation simultaneously is due to lack of proper planning. The other difficulties reported are:

- giving more emphasis to learning process than evaluation
- lack of awareness about suitable strategies .

The above mentioned difficulties prove the need for familiarising teachers with planning of evaluation strategies to be conducted in assimilation with classroom process.

Specificity of indicators related to different areas of evaluation

The data based on responses of teachers regarding specificity of indicators related to different areas of evaluation were collected and analyzed. The details are given in table 2.44

Table 2.44

Specificity of indicators related to different areas of evaluation

Aspects	Responses in Percentage	
	Yes	No
Specificity of indicators related to different areas of evaluation	87.10	12.9

From the table 2.44 it is found that majority (87.10%) teachers reported that the indicators given to the areas for evaluation are specific while 12.9% teachers reported as not specific.

It is significant to note that 12.9% of teachers reported that the indicators related to different areas of evaluation are not specific.

5a. Area which needs clarity for indicators

The data based on areas which need clarity for indicators were collected from teachers who did not get a clear idea about it (12.9%) and were subjected to analysis. The details are given in table 2.45

Table 2.45

Area which needs clarity for indicators

Area	Responses in Percentage
Assessment of Learning Process	4.00
Portfolio Assessment	3.57
Unit Assessment	4.52

From the table 2.45 it is found that a *very few teachers (4.52%) reported that they need clarity in Unit Assessment. A very few needs clarity of indicators in Portfolio Assessment and Assessment of Learning Process.*

Problems faced by teachers during the assessment of learning process

The data based on responses of teachers regarding problems faced by teachers during the assessment of learning process were collected and analyzed. The details are given in table 2.46

Table: 2.46

Problems faced by teachers during the assessment of learning process

Area	Responses in Percentage
Overcrowded classroom	40.00
Lack of suitable criteria	12.90
Lack of time	69.68
Lack of awareness of teachers	5.16
Lack of planning	1.29

The table 2.46 revealed that 69.68% of teachers in English reported that the main problem faced by them during assessment of learning process is lack of time and 40% teachers reported overcrowded classrooms as their main problem. At the same time a few teachers(below 10%) faced problems due to lack of suitable criteria ,lack of awareness to the teachers and lack of planning.

From the analysis it is inferred that teachers face a few problems in the assessment of learning process and it is indeed necessary to include sessions in the teacher training to provide awareness about assessment of learning and how to plan and execute it in the allotted time.

Provision for self-evaluation and peer evaluation

The data based on responses of teachers about providing opportunities for Self-evaluation and Peer evaluation were collected and analyzed. The details are given in table:2.47

Table: 2.47

Provision for Self-evaluation and Peer evaluation

Aspects	Responses in Percentage	
	Yes	No
Self -Evaluation	94.84	5.16
Peer Evaluation	77.42	22.58

From the table 116 it is clear that a great majority(94.84%)of teachers provide opportunities for self-assessment and 77.42% for peer assessment. But it is significant to note that 5.16% of teachers are not at all providing any opportunity for self-evaluation and 22.58% for peer evaluation.

It is clear from the analysis that most of the teachers provide ample opportunities for self-assessment and peer assessment

Preparation of indicators for Evaluation

The data based on responses of teachers regarding preparation of indicators for evaluation were collected and analyzed. The details are given in table 2.48

Table: 2.48

Preparation of indicators for Evaluation

Area	Responses in Percentage
Prepared by Teacher	42.58
Prepared by learners themselves	10.97
Derives from classroom discussion	65.16

The table 2.48 gives the idea that 65.16% of the teachers framed indicators for assessment through classroom discussion whereas, 42.58% of them gave the indicators for assessment directly. Only a very few (10.97%) opined that the indicators for assessment were prepared by students themselves.

It can be inferred that around 66% of teachers provide opportunity for the learners to prepare indicators for evaluation. It is also significant to note that 42.58% of teachers prepare indicators for evaluation.

Provision of ample opportunity to learners to present their products related to self-assessment and peer assessment

The data based on responses of teachers regarding Provision of ample opportunity to learners to present their products related to self-assessment and peer assessment. The details are given in table.2.49

Table:2.49

Opportunity to learners to present their products related to self-assessment

Aspects	Responses in Percentage	
	Yes	No
Whether you provide ample to present their products related to self-assessment and peer assessment?	89.68	10.32

The table 2.49 reveals that a great majority of the teachers (89.68%) provided ample opportunity to learners to present their products related to self-assessment and peer assessment. At the same time 10.32% didn't.

It is significant to note that even though majority of teachers are providing of opportunities to learn to present their product related to self-evaluation and peer evaluation, a significant number of teachers are not providing at all.

Suitable changes in the classroom process considering the learners' assessment

The data based on responses of teachers regarding suitable changes in the classroom process considering the learners' assessment. The details are given in table 2.50

Table: 2.50

Necessary changes in the classroom process

Aspect	Responses in Percentage	
	Yes	No
Suitable changes in the classroom process considering the learners' assessment	81.29	18.71

The table 2.50 clearly states that majority of the teachers (81.29%) opined that they make suitable changes in the classroom process considering the learner's assessment where as 18.71% responded negatively.

Changes incorporated for student evaluation

The teachers who made changes in the classroom process considering the evaluation of learners pointed out some changes they have made for the last one year. They are:

- Giving due consideration to slow learners
- Peer teaching and evaluation
- Used ICT possibilities in evaluation
- Remedial teaching
- Conducting Reading competition Dictation, Quiz, etc.
- Foster competitive spirit among students
- Collaborative learning
- Ensuring the presence of students of different levels in all groups
- Manuscript preparation
- Self-evaluation during drama and recitation
- Facilitate copy writing to reduce spelling mistakes
- Used more learning aids
- Fixing of alphabets
- Preparing teacher version

- Presenting lesson as scripts
- Encouraging bright students
- Changes strategies in evaluation
- Better use of library
- Editing activity enhanced to reduce spelling mistakes
- More time allotted for reading notes and review
- Simplifying activities for slow learners
- Giving more importance to creative writings
- Priority given to local language in activities
- Provision of individual activities
- Identifying slow learners and their ensuring improvement through “Munnettam”
- Planning activities for bright students
- Conduct News reading and story reading in assembly
- Self-developed module for students of different levels
- Applying new methods of learning and evaluation
- Changed classroom arrangements
- Conducting Extra classes

From the above list it can be inferred that the majority of teachers have made various changes in classroom process considering the learner’s evaluation.

Tools / techniques while using in unit wise evaluation

The data based on responses of teachers regarding the use of Tools / techniques used for unit wise evaluation were collected and analysed. The details are given in table 2.51

Table:2.51

Tools / techniques for evaluation

Area	Percentage
a. Quiz	54.84
b. Open book test	35.48
c. Class test	87.10

It is found from the table.2.51 that class test is widely used tool by majority of the teachers (87.10%) for unit wise evaluation whereas 54.84% of the teachers use quiz as a tool for unit wise evaluation. Open book test technique was employed by 35.48% of the teachers.

Records considered for continuous evaluation

The data based on responses of teachers regarding the records they consider for CE. The details are given in table : 2.52

Table: 2.52

Records considered for continuous evaluation

Area	Percentage
a. Note book	91.61
b. Worksheet	79.35
c. Writings	76.77
d. Short notes	78.06
Project/seminar reports	68.39
Answer sheets of unit wise assessment	76.13

Table 2.52 reveals that note books are one of the records considered by majority of the teachers (91.61%) for continuous evaluation. More than 75% of the teachers considered the learners' worksheet(79.35%), short notes(78.06%), writings (76.77%)and answer sheets of unit wise assessment(76.13%) for continuous evaluation. Below 70%of the teachers considered project and seminar reports for continuous evaluation.

From the analysis it is inferred that teachers are considering different records such as Notebook. Worksheet. Project/seminar report, answer scripts, short notes and creative writings /assignment for continuous evaluation. It is significant to note that about 30% of teachers are not considering creative writings and short stories, about 30% of teachers are not considering project and answer scripts for continuous evaluation.

Feedback based on continuous evaluation

The data based on responses of teachers regarding the feedback based on continuous evaluation. The details are given in table: 2.53

Table: 2.53

Feedback based on continuous evaluation

Aspect	Responses in Percentage	
	Yes	No
For learners	96.77	3.23
For parents	74.84	25.16

From the table 2.53 revealed that a great majority of teachers (96.77%) reported that they provide feedback based on continuous evaluation for learners while 74.84% teachers for

parents. It is significant to note that 25.16% of teachers are not giving feedback to parents and very few teachers not to learners also.

Even though majority of teachers are giving feedback based on CE a significant number of teachers are not giving feedback on CE for parents and 4.43% of teachers not for learners too. But it is series to consider this since feedback to learners is very important in learning process.

Provision for remedial instruction based on feedback from Continuous Evaluation

The data based on responses of teachers regarding remedial teaching based on continuous evaluation. The details are given in table.2.54

Table : 2.54

Remedial teaching based on continuous evaluation

Aspect	Responses in Percentage	
	Yes	No
Provision for remedial instruction based on feedback from Continuous Evaluation	85.81	14.19

Table-2.54 reveals that a great majority of teachers (85.81%) in Mathematics reported that they are providing remedial instruction based on feedback from Continuous Evaluation, while 14.19% teachers are not providing remedial instruction.

It is significant to note that even though majority of teachers are providing remedial instruction based on feedback from Continuous Evaluation, significant percentage of teachers (14.19%) are not providing remedial instruction based on the feedback obtained from continuous evaluation For learners and parents.

Methods adopted for remedial instructions

The data based on responses of teachers regarding the Strategies chosen for remedial teaching. The details are given in table 2.55

Table:2.55

Strategies for remedial teaching

Area	Percentage
a. Changing the process	36.13
b. Giving support	66.45
c. Peer tutoring	51.61
d. follow-up activities	60.65

The table.2.55 reveals that 66.45% percentage of the teachers used supportive measures as part of remedial teaching whereas 60.05% of teachers employed continuous activities for remedial teaching. It is found that 51.61% of the teachers used peer tutoring method for remedial teaching. A considerable number (36.13%) of teachers changed the process of teaching for remedial teaching.

Accurate recording of continuous evaluation

The data based on responses of teachers regarding the accuraterecording of continuous evaluation were collected and analysed. The details are given in table.2.56

Table:2.56

Accurate recording of continuous evaluation

Aspect	Responses in Percentage	
	Yes	No
Recording of continuous evaluation	70.32	29.68

From the table-2.56 it is found that 70.32% of teachers reported that they are accurately recording the details of the continuous evaluation. While 29.68% reported that they are not recording the details of CE

Even though majority of teachers accurately record the details of continuous evaluation, about 29% teachers did not record accurately the details of continuous evaluation.

Different strategies for CWSN learners

The data based on responses of teachers regarding the Framing separate strategies of evaluation for CWSN learners were collected and analysed. The details are given in table.2.57

Table: 2.57

Framing Different Strategies for CWSN learners

Aspect	Responses in Percentage	
	Yes	No
Framing Different evaluation Strategies for CWSN learners	43.23	56.13

From the table-2.57 it is found that 56.13% of teachers reported that they are not framing separate strategies of evaluation for CWSN learners whereas 43.23% of teachers are framing separate strategies of evaluation for CWSN learners.

From the analysis it is clear that 43.23% of teachers are framing different strategies for CWSN learners. But a majority percentage of teachers are not framing different strategies for CWSN learners.

Recording of responses based on Term Evaluation

The data based on responses of teachers in recording of responses based on Term evaluation were collected and analysed . The details are given in table. 2.58

Table:2.58

Recording of responses based on Term Evaluation

Statements	Great extent	Some extent
Clear awareness about TE	89.03	10.97
The tools adopted for Term Evaluation are adequate for evaluating learning outcomes.	75.48	24.52
Include variety questions which give emphasis to thinking skills	72.26	27.74

Table-2.58 revealed that majority of teachers (89.03%) reported that they have clear awareness about TE. At the same time 75.48% of teachers reported that tools for TE is suitable to great extent for evaluating the learning outcomes while 72.26% opined that TE includes variety of questions which give emphasis to thinking skills to a great extent level.

Difficulties experienced in TE

The data based on responses of teachers regarding they face any difficulties regarding TE. The details are given in table.2.59

Table:2.59

Difficulties experienced in TE

Aspect	Responses in Percentage	
	Yes	No
Teachers face Difficulties related to TE	17.42	82.58

It is clear from the table- 2.58 that the majority of teachers in English(82.58%) face no difficulties regarding TE. About 17.42% of teachers reported that they face difficulties related to regarding TE.

Even though majority of teachers are not facing any difficulties related to TE, a significant number of teachers have difficulties related to TE.

Difficulties reported by teachers related to TE

The data based on responses of teachers regarding the difficulties related to TE were collected and analysed. The details are given in Table. 2.60

Table: 2.60

Difficulties reported by teachers related to TE

Area	Responses in Percentage
a. inadequate Evaluation strategies	6.45
b. Difficulty in grading	6.45
c. Difficulty in recording	3.23

From the table 2.60 it is seen that 6.45% of teachers reported that the difficulties they experienced related to term evaluation are due to difficulty in grading and inadequate evaluation strategies. The other difficulty reported is difficulty in recording (3.23%).

From the analysis is found that few teachers reported that they experienced difficulties related to term evaluation. The difficulties are inadequate evaluation strategies, difficulty in grading and difficulty in recording.

Conduct of evaluation related to art, sports and work experience

The data based on responses of teachers regarding Assessment related to art, sports and work experience are collected and analysed . The details are given in table.2.61

Table.2.61

Evaluation related to art, sports and work experience

Aspect	Responses in Percentage	
	Yes	No
Conduct of evaluation related to art, sports and work experience	43.87	56.13

It is clear from the table 2.61 that about 43.87% of the teachers opined that the assessment related to art, sports and work experience were carried out whereas 56.13% had a negative opinion.

From the analysis it is clear that above 50% of teachers are not properly conducting evaluation related to art, sports and work experience.

Suggestions to improve the efficiency of evaluation related to arts and sports activity learning-

- Appoint trained teachers

- Include sufficient time
- Provide Training
- Specific period and text book needed
- Provide evaluation tools and work sheet
- Ensuring availability of TB and TT

The teachers suggested the appointment of trained teachers in arts, sports and work experience to ensure the effective evaluation. They suggested including sufficient time to practice these subjects, providing separate period for teaching these areas and providing evaluation tools/ worksheets for evaluating these subjects.

Evaluation and recordings conducted: Social and Emotional areas

The data based on responses of teachers regarding evaluation and recordings conducted for Social and Emotional areas. The details are given in table.2.62

Table: 2.62
Responses of teachers regarding Social and Emotional areas

Area	Percentage
Empathy	67.74
Intrapersonal skill	89.03
Problem solving capacity	62.58
Critical thinking	51.61
Self-awareness	75.48
Communicative skill	69.03
Coping with emotions	60.00
Decision making	85.16
Creative thinking	53.55
Coping with stress	50.32

The table 2.62 that majority of the teachers (89.03%) conduct evaluation and recordings in the area intrapersonal skill whereas 50.32% in coping with stress. However the results of the data are presented as per its hierarchical order-Intrapersonal skill, decision making, self-awareness ,communicative skill, empathy, problem solving capacity, coping with emotions, creative thinking critical thinking and coping with stress .

It is important to note that a significant number of teachers are not carrying out evaluation and recording of socio-emotional area like empathy, problem solving skill, creative thinking, critical thinking, and coping with stress under socio emotional areas. Even though majority of teachers are evaluating and recording socio-emotional areas like

interpersonal skill, decision making, self-awareness and communication skill, a significant number of teachers are not yet carrying out evaluation and recording in these areas.

Adequacy of resources in the text book for enhancing Reading habit among learners

The responses of teachers regarding the adequacy of resources in the text book for enhancing Reading habit among learners were collected and analysed. The details are given in the table 2.63

Table 2.63

Adequacy of resources in the text book for enhancing Reading habit among learners

Sl. No	Items	Responses in Percentage
1.	Summarizing the content	78.06
2.	Preparing reading note	78.71
3.	Collection of similar compositions	69.68
4.	Comparison of similar composition	55.48
5.	Post reading activities	62.58
6.	Identification of climax of compositions	52.26
7.	Story telling	38.71
8.	Recitation	36.77
9.	Workshop for creative writing	43.87

It is found from the table 2.63 that the activity of preparing appreciation note (78.71%) and summarizing content (78.06%) given in the English text book are adequate for enhancing reading habit among learner, while more than sixty percent of teachers reported the activities like collection of similar composition (69.68%) and post reading activities (62.58%). Other resources reported by teachers are comparison of similar composition (55.48%), identification of climax of compositions (52.26%), workshop for creative writing (43.87%), storytelling (38.71%) and recitation (36.77%).

Adequacy of resources in the text book for fostering literary aptitude among learners

The responses of teachers regarding the adequacy of resources in the text book for fostering literary aptitude among learners were collected and analysed. The details are given in the table 2.64

Table 2.64**Adequacy of resources in the text book for fostering literary aptitude among learners**

Sl. No	Items	Responses in Percentage
1.	Story writing	81.94
2.	Versification	79.35
3.	Conversation	79.35
4.	Description	77.42
5.	Narration	66.45
6.	Appreciation	58.06
7.	Story telling	51.61
8.	Recitation	55.48
9.	Puzzle/riddle framing	41.94
10.	Foot note writing	52.26
11.	Story	60.65
12.	Poetry completion	52.90
13.	Title writing	63.23

The analysis of the table 2.64 revealed that majority of teachers((81.94%and 79.35% respectively) reported that the provisions /resources for story writing, recitation , description and conversation writing provided in the text book are adequate to foster literary aptitude among learners. It is followed by description(66.45%), title writing(63.23%) and story (60.65%) . It is also seen that appreciation(58.06%) , recitation (55.48%), poetry completion(52.90%), foot note writing(52,26%), storytelling(51.61%) and puzzle/riddle framing(41.94%) are the other resources reported by teachers.

Inclusion of resources for creative writing in the text

The responses of teachers regarding the Inclusion of resources for creative writing in the text were collected and analysed. The details are given in the table 2.65

Table 2.65**Inclusion of resources for creative writing in the text**

Sl.No	Items	Responses in Percentage
1.	Story completion	83.23
2.	Picture story	70.32
3.	Poetry completion	80
4.	Picture reading	78.06
5.	Narrative writing	72.26
6.	Description notes	85.16
7.	Conversation writing	87.10
8.	Criticism writing	53.55
9.	Script writing	70.32
10.	Preparation of appreciation	63.23
11.	Foot note writing	58.06
12.	Card making	80.00

From the table 2.65 it is found that a majority of teachers(70%-90%) reported that conversation writing , ,preparation of appreciation, narrative writing , story completion , poetry completion, card making, picture reading, description notes, picture story and script writing are included in the text book for providing opportunity for creating writing . The other activities reported are foot note writing (58.06%) and criticism writing(53.55%).

Use of activities for acquirin language skills

The responses of teachers regarding the use of activities for acquiring language skills were collected and analysed. The details are given in the table 2.66

Table 2.66

Use of activities for acquiring language skills

Sl. No	Items	Response in percentage
1.	Role play	91.61
2.	Story telling	72.26
3.	Miming	61.29
4.	Colouring	55.48
5.	Choreography	68.39
6.	Drawing	64.52
7.	Recitation	69.68

From the table 2.66 it is found that a great majority of teachers(91.61%) reported that role play given in the textbook are useful for acquiring language skill. It is found that story telling(72.26%), recitation(69.68%) choreography(68.39%), miming (61. 29%) and colouring(55.48%) are the other activities reported by the teachers

Adequacy of teacher text for the effective transaction of concepts

The responses of teachers regarding the adequacy of teacher text for the effective transaction of concepts were collected and analysed. The details are given in the table 2.67

Table 2.67

Adequacy of teacher text for the effective transaction of concepts

Sl.No	Item	Response in percentage	
		Yes	No
1.	Adequate for effective transaction of the concepts given in the text book	87.74	12.26

It is seen from the table 2.67 that majority of teachers (86.45%) responded that the teacher text is adequate for effective transaction of the concepts given in the text book. It is also seen that 13.75% of teachers reported that the teacher text is not adequate for the effective transaction of concepts.

Facilities/techniques used for acquiring language skills

The responses of teachers regarding the Facilities/techniques used for acquiring language skills were collected and analysed. The details are given in the table 2.68

Table 2.68

Facilities/techniques used for acquiring language skills

Sl.No	Facilities	Response in percentage
1.	Club activities	89.68
2.	Language lab	45.81
3.	School assembly	69.68
4.	News paper	76.13

It is found from the table 2.68 that club activities (89.68%), newspaper(76.13%) and school assembly(69.68%) and language lab(43.81%) are the facilities reported by teachers used for acquiring language skills.

V. Class Observation Analysis

The classes of 12 teachers were observed and analysed for assessing the effectiveness of classroom transactions and the results are presented in table 2.69.

Table 2.69

Class Observation Analysis

Sl. No	Dimensions	Very Good	Good	Needs Improvement	Does Not Meet Standards	No Remarks	
1	Teaching Manual	4	5	3			
2	Preparation	5	4	2	1		
3	Interest and Motivation	3	3	4	1	1	
4	Learning Activities	Nature	3	6	2	1	
		Continuity	2	7	3		
		Use of Learning Materials	2	7	1	2	
		Knowledge Construction through Learning Activities	2	7	2	1	
		Development of Attitude and Values	4	3	2	1	2
		Involvement of Learners	4	5	2	1	
5	Learning Environment	2	7	1	1	1	
6	Classroom Intervention	4	4	3	1		
7	Reflective Thought	4	2	4	1	1	
8	Consolidation	1	7	3	1		
9	Evaluation Process	Process	4	4	1	3	
		Self-Assessment					
		Peer Assessment					
		Portfolio					
10	Overview of the Class	2	5	3	1	1	
	Total						

Observation of classes of 12 teachers indicated that all the teachers have prepared teaching manual. Considerable teachers have used additional resources and creative activities other than Teacher Text, whereas most teachers used essential resources and activities only for preparing teaching manual. It is also observed that the Teaching manuals of few teachers need improvement.

It is observed that a good number of teachers ensured the necessary pre-requisites using variety of creative activities, while some of them provided a variety of learning activities to get adequate pre-requisites to all learners. At the same time two teachers provided activities only necessary for basic pre requisite knowledge to very few learners. It is serious to note that one of the teachers not at all provided any activities to ensure necessary pre-requisite.

Only few teachers provided life-oriented and thought provoking activities like description, stories and leaning materials for developing interest and motivation among the learners. At the same time half of the teachers made the class interesting using descriptions, stories and learning materials. But there were classes in which the teachers motivated the learners only by describing the content and asking questions. It is serious to see that no effort was taken by one of the teachers to make the class interesting or motivating.

It was observed that three teachers used the learning activities suggested in TB and TT very effectively so as to develop reflective thinking among learners, where as in six classes variety of learning activities provided were effective. In three other classes it is found that learning activities were carried out mechanically.

Half of the teachers transacted the content in a sequential order. Spontaneous progress in learning and timely recording in the TM were there in another three classes observed. But in two classes continuity was not ensured in certain places

Few teachers were observed using innovative learning aids, prepared local resources for attaining conceptual clarity while majority of the teachers used easily accessible learning aids recommended in the curriculum and one teacher used minimum number of learning aids already available in the school. It is pathetic to observe that two teachers were not even using already available learning aids in the school.

Regarding the knowledge construction through learning activities it is found that two teachers supported the learners to attain higher level of knowledge construction through variety of learning strategies including reflective questioning and debating, seven teachers intervenes actively by discussion and clearing doubts where as two teachers only tries to clarify the doubts through explanations and one of the teachers was providing opportunity for recalling facts through repeated drill and practice.

It is seen that considerable number of teachers are providing slots for learning activities to develop attitudes, values and social responsibilities stipulated in the content for intellectual and emotional development, while some of them provided learning activities for intellectual and emotional development, through advice and suggestions were the

measures taken by two teachers for developing attitudes and values . It is serious to note that three teachers didn't provide situations for the development of attitudes and values.

It is again observed that four teachers helped learners to identify their roles and ensured their involvement in group and individual activities, other five teachers helped learners to identify their roles in learning situations correctly, but the involvement of all learners were not ensured and two teachers didn't cared for the identification of their roles and didn't ensure the involvement of all learners equally in learning process and is significant to note that those learners who are intrinsically motivated only involved in the learning activities.

From the classes observed it is noted that two teacher created infrastructure/ICT facilities and independent social and emotional environment suitable for learning activities for all types of learners, while seven teachers provided learning activities based on available infrastructure/ICT facilities and creates essential situation necessary for independent social and emotional environment. It is serious to consider that one teacher is not even using available infrastructure/ICT facilities and two classes observed were teacher centered.

As per the analysis it is observed that four teachers intervened with all types of learners as mentors rather than teachers whereas four teachers made only essential interventions as teachers to attain learning out comes and four of them intervene only as much required to transact the content.

It is observed that out of the 12 classes observed four teachers provide opportunity for reflective thinking in the concerned class itself and provided Remedial measures and other two teachers provided opportunity for reflective thinking. It is also noted that activities provided by four teachers were not adequate for reflective thinking and two teachers didn't provide any opportunity for reflective thinking

It is found that in the only one class observed teacher consolidated individual and group activities so as to ensure the learning during and at the end of the class, whereas seven teachers consolidated group activities during and at the end of the class , where as in other three classes observed teachers consolidated only at the end of the class, but no consolidation was there in one of the classes observed.

From class room observation it is found that three teachers used variety of strategies for different types of evaluation, while five teachers were using variety of strategies for evaluating learning outcomes based on the content. It is also seen that tw teachers depended on certain evaluation strategies suggested in the text book.

From the analysis it can be tentatively concluded that among the 10 classes observed the performance of teachers is up to them with regard to the components like Teaching manual

preparation, learning environment, classroom intervention and evaluation process. The above mentioned findings high light the need for empowering teachers in English with necessary competencies and skills for making the learning process oriented and learner friendly .

VI. Answer Sheet Analysis:

Remarks

Activity 1 – Analysis of poem

It is found that 81% of students could not analyze a new poem. So they cannot answer the questions. 60% of students could not identify the rhyme scheme and 18% only.

No one could achieve full score in this activity .In this activity Q1, Q2 couldn't be comprehended by the learners because question pattern is above the level of the learners.

Suggestion

If we give feedback on rhyme scheme and identify the message, they can achieve the task.

Activity 2 Letter

While analyzing the table, it is found that 56% of students couldn't express ideas sequentially without digression and could not use connectives and pronouns properly to maintain coherence. 25% of them couldn't uses wellformed constructions (syntax, number, gender, person, verb etc.) 25% of students responded well and 12% did not attend the test. A few of them couldn't covey the message properly.

Suggestion

Answer sheet analysis revealed that 25% achieved full score. Others need feedback on various aspects and 12% of students need more attention.

Activity 3 Profile

It is found from the table, that 18% could achieve full score in the area of profile writing. Majority of the learners could not write a profile with all its features. Majority of learners could not express ideas with cohesion by using all the relevant details of the person.

A few of them could convey the message, use persuasive and emotive language as demanded by the context, use correct format use well formed constructions.

A meager percentage of learners have not attempted the question.

It can be concluded that most of the children could not write a profile with all its features.

Suggestion

Majority of learners should be given feedback on this activity and some of them need more attention

Activity 4 Diary

It is found from the table that 25% of learners could not achieve full score in the preparation of diary. They could not express personal reflections, thoughts and feelings about the events or use the language appropriate for the mood of the situation. Majority of them could not use variety of sentences. A minor percentage of learners could not use variety of sentences.

It can be concluded that most of the learners could not write a diary with all its features.

Suggestion

Seventy five percentages (75%) of learners need remedial classes and 18% of them need special attention.

Activity 5 – story

It is found from the table, that 18% of learners could achieve full score in the area fixing the events and completing a story. A major percentage of learners could not express logical predictions and proper sequencing of events and dialogues. Many of them could not use variety of sentences, contextually relevant and emotive language. A few percentage of learners have not attempted the question at all.

A few students could express logical predictions and they could present the story with proper sequencing of events and dialogues. They could use contextually relevant and emotive language, use of variety of sentences, could contain conflicts and resolutions and add apt title for the story.

It may be concluded that most of the learners could not write a story with all features.

Suggestion

Answer sheet analysis revealed that 82% of learners need to be given remedial classes in the writing of story and 25% of them need to be given special attention.

Activity 6 Editing

None of the learners could attain full score in this area. Majority of them do not have any idea about the morphological aspects

Suggestion

100% of learners need remedial classes for editing especially in the area morphology.

VII. Text Book Analysis

1. Conformation of the lessons to constructivist approach

Out of the six units in 7th standard English text book, all the units except the 3rd unit 'Man and media' and unit 4 'Village Pooram' are in tune with constructivism. These reading passages are too lengthy also.

2. Adequacy of the content in attaining the desirable Learning Outcome

Contents of the Text Book are sufficient to achieve Learning Outcome. The process of the T.B given has to be done in such a way that every learner gets a chance to listen, speak, read and write in the target language. Unit 3 are loaded with language elements. It will hinder the natural way of learning.

3. Suitability of the lessons for process oriented learning

All the six units in 7th standard English Text Book are suitable to process oriented learning.

Variety of Learning Materials

Various strategies are used to attain Learning Outcome in all units. Variety of learning materials is ensured.

4. Language for interaction with learners

Child friendly and standardized language is used in almost all units in 7th standard English text book, every learner gets a chance to listen, speak, read and write in the target language.

5. Suitability and legibility of pictures, graphs and maps.

Most of the pictures given in the text book are very suitable to learners for forming mental pictures of the characters described in the stories and poems. But in the unit 1- 'How far is the River' (page 9) and Unit 6- Moments of Humour (page 162), the learners can't easily name the characters in the picture. Pictures need more clarity.

6. Lessons which require more explanation for activity given in the Text Book

Almost all the lessons have some activities which need clarifications.

Details

In Unit 1 '*How far is the River*'-Negative idea is conveyed through the story. It would have been better if the child had visited the river with the knowledge of his parents.

Unit 2 *Ecoing green*-There is no explanation about the Rhyme Scheme in the text book.

Unit 3 *Man and Media*-Reading passages are above the level of standard 7 students especially story of message.

Unit 4 *Village Pooram*-There are 4 texts in this unit. Three texts focused on the care and consideration towards the aged people. But Village Pooram deals with a different idea. It deals with the cultural festivals, excessive use of unfamiliar words leads to lack of interest in reading.

Unit 5 *Daddy fell into the pond*-A wrong message is conveyed through the poem (when father falls into the pond the child laughs).

Unit 6 *Moments of Humour*-Lack of clarity of language elements like future tense, passive voice and question words. But there is no Story about the bank depositor lacks sense of humour.

7. Lessons where the explanation need to be simplified

In all the units except unit 6, there are lessons where explanation is needed.

Unit 1

How far is the river- Activities : 2 page 13; 4 page 14; 8 page 16; 11 page 18
Ecoing Green - Activity 3 page 23.*Snake in the grass*— activity 3 page 28; activity 5 page 29; activity 6 , 9 page 30; activity 11 page 32.

Unit

2

Owl and the Pussy cat— activity 1 page 38; activity 3 page 41; activity 1 page 47; activity 3 page 48
Songs of song— activity 3a page 54; 3b 55; 6 page 58; 7 a and b page 59

Unit 3

Man and Media – the story of message is too lengthy; activity 2 page 87; activity 3 page 87; activity 4 page 87; activity 8 page 92,93.

Unit 4

Wooden cup Wooden cup - Activity 7 page 117; activity 9 page 119; activity 10 page 119.

A village Pooram – vocabulary is too high to comprehend the passage

Unit 5

The boy and the balloon— activity 5 and 6 page 149, 150; activity 8 page 156

8. Possibilities for continuous evaluation

Teachers can assess the learners based on their participation in the activity, excellence in their performance or presentation, the aptitude to prepare write ups/ notes as part of the process and extend to which the learners have acquired the skill. There are various slots provided in the TB to assess the learner.

All the units in the 7th standard English Text Book provide number of slots for continuous and comprehensive evaluation.

9. Ensure that there is no element of discrimination

Discrimination of any kind is not reflected in any of the units.

10. Possibilities of democratic values

All the aspects like constitutional values, secular attitudes, tolerance, creative thinking, equality, civic sense, human right, child right etc are considered in almost all units in the std 7 text book.

Unit 1 *Natures plenty*

Theme of the unit – Nature needs to be protected for the survival of mankind.

Unit 4 *Rhythms of life*

Theme – Human values hold individuals together.

All the units in the text book reflect the values of democracy.

11. Child friendly layout

The layout, language and content of the 7th standard English text book is in tune with Right to Education Act 2009.

Learning takes place by confronting problematic situations and through problem solving.

All the stories in the textbook are authentic and attractive to learners. Printing and pictures are suitable to the learners.

12. Suitability of Teacher Text for the transaction of lessons

The standard 7th teacher text of English is suitable for transaction of lessons. It is a comprehensive teacher text which gives details on the approach methodology, techniques of transactions, planning and evaluation is developed along with the reader.

The activities suggested in the teacher text are suggestive and not prescriptive. Teachers are free to adopt and modify the suggested activities to suit the level of learner in the class with in the constructivist paradigm. There is one to one correspondence between the activities given in the source book and teacher text. Ample opportunities are provided in the teacher text for the teachers to analyse and practice the elements of language.

13. Others

Details

- To reduce the size of the text book.
- To improve printing quality and binding quality.

II. C. SCIENCE

I. LEARNING OUTCOME

The teachers were asked to mark their responses regarding the characteristics of learning outcomes envisaged in the Curriculum 2013. The responses were collected and analysed. The results are given under the subheadings based on the subject of the teachers.

The responses of Science teachers regarding the clarity of the features of the learning outcomes are analysed and the results are given under various subheadings

1. Clarity of the features of the learning outcomes envisaged in the curriculum 2013.

The teachers are asked to mark their opinion regarding the clarity of different features of the learning outcomes envisaged in the curriculum 2013 as 'Yes' or 'No'. The responses obtained from 500 Science teachers were tabulated and analysed. The result showing the percent of teachers who have and do not have clear idearegarding the different features of the learning outcomes envisaged in Curriculum 2013 are given in Table 3. 1

Table 3.I

Clarity of the features of the learning outcomes envisaged in the curriculum 2013

Statement	Response in percentage		
	Yes	No	Total
Clarity regarding features of the learning outcomes envisaged by curriculum 2013	85.90	14.10	100.00

From Table.3.1, it is found that majority of teachers (85.90%) in Science have a clear idea regarding the characteristic features of the learning outcomes envisaged in the curriculum 2013. But14.10% of teachers in Science opined that they don't have the clear idea of the characteristic features of the learning outcomes envisaged in the curriculum2013.

1.b The areas in which they need more clarityregarding characteristics features of the learning outcomes envisaged by curriculum 2013 are mentioned below:

- Process oriented learning outcomes
- Outcome which can be developed through co-operative and collaborative learning
- Outcomes which can be achieved through short term and long term
- Those helps to develop values and attitudes

Therefore it can be inferred that the characteristic features of the learning outcomes envisaged in the curriculum 2013 are clear to majority of teachers who are teaching Science in class VII. It should be noted that among the Science teachers of Class VII, a small group do not have clarity regarding the characteristic features of the learning outcomes envisaged in the curriculum 2013.

2. a). Ensuring the attainment of expected learning outcomes

The teachers are asked to mark their opinion regarding the ensuring of attainment of expected learning outcomes through the transaction of content as ‘Yes’ or ‘No’. The responses obtained from Science teachers were tabulated and analysed. The result showing the per cent of teachers who ensure and do not ensure the attainment of expected learning outcomes through the transaction of the content are given in Table3. 2.

Table 3.2
Ensuring the attainment of expected learning outcomes

Statement	Yes	No	Total
Ensuring the attainment of the expected learning outcomes in all learners through the transaction of the content.	26.92	73.08	100.00

It is clear from table 3.2, majority of teachers (73.08%) in standard VII opined that they couldn’t ensure that all learners achieved the expected learning outcomes to be attained through the transaction of the content. Only 26.92 % of teachers could ensure that all learners achieved the expected learning outcomes through the transaction of the content.

It is noteworthy that majority of Science teachers learners couldn’t ensure the achievement of the expected learning outcomes through the transaction of the content.

2.a. Measures adopted

Based on table 4.2 it is found that great number of teachers opined they could not ensure that the learners achieved the learning outcomes expected to attain through the transaction

of the lessons. Measures suggested by the teachers for ensuring the learning outcomes in all learners are the following:

- Extended activities
- Individualized learning
- Peer tutoring
- Class test and retest
- Parallel group formation

3. Differentiating Short term and long term learning outcomes.

The teachers are asked whether they could differentiate between the short term and long term learning outcomes imbibed in Science textbook as ‘ To a great extent’, ‘To some extent’, and ‘Not at all’. The responses given by the teachers are collected and analyzed. The result obtained is given in Table.3.3

Table.3.3

Differentiating short term and long term learning outcomes

Statement	To a great extent	To some extent	Not at all	Total
Differentiate between the short term and long term learning outcomes	28.85	69.23	1.92	100.00

From table 3.3, it is clear that majority (69.23%) of teachers could differentiate between short term learning outcomes from long term learning outcomes only to some extent level. Among the teachers, 1.92% couldn’t differentiate between the short term and long term learning outcomes. Only 28.85% of teachers could differentiate between short term and long term learning outcomes to a great extent level.

Therefore it is inferred that a majority of teachers in Science could differentiate between short term and long term learning outcomes only to some extent level.

4. Spiraling of learning outcomes to ensure continuity and growth

The teachers are asked whether the learning outcomes are arranged in such a way to ensure the continuity and development of it from the lower to higher classes. The responses marked by Science teachers are as ‘Yes’ and ‘No’. The result collected and analyzed is given in Table3. .4

Table 3.4

Spiraling of learning outcomes to ensure continuity and growth

Statement	Yes	No	Total
Arrangement of the learning outcomes in such a way to ensure the continuity and development of it from the lower to higher classes	93.95	6.41	100.00

From the table 3.4, it is clear that a great majority (93.95%) of teachers in Science agreed that the learning outcomes are arranged in such a way as to ensure the continuity and development of it from lower to higher classes.

Thus it can be inferred that the spiraling of learning outcomes are ensured from lower to higher classes.

4. a) Majority of teachers reported that, the attainment of the learning outcomes are arranged in such a way as to ensure the continuity and development of it from lower to higher classes. Others recommended measures such as providing more examples, Ensuring basic knowledge, including more content should be in the lower class text book, etc.

5. Observable and measurable learning outcomes given in different units.

Science teachers were asked whether the learning outcomes given in different units are observable and measurable. The teachers responded to the question and it was collected and analysed. The per cent of teachers who responded to this question is recorded in Table 3. 5.

Table 3.5

Observable and measurable learning outcomes given in different units

Statement	Yes	No	Total
Opinion regarding observable and measurable learning outcomes	85.90	14.10	100.00

The table 3.5 shows that a great majority of teachers (85.90%) in Science opined that the outcomes given in different units are observable and measurable. Minor percentage (14.10) of teachers opined that the learning outcomes given in different units are not observable and measurable.

Majority of the teachers in Science are of the reported that the learning outcomes given in different units are observable and measurable.

6. Acquisition of ideas/ skills from each unit through the learning outcomes

The teachers were asked whether they could understand the ideas/ skills to be acquired from each unit through the learning outcomes. The responses collected and analysed are recorded in table 3.6.

Table 3.6

Acquisition of ideas/ skills from each unit through the learning outcomes

Statement	To a great extent	To some extent	Not at all	Total
Understanding the ideas/ skills to be acquired from each unit through the learning outcomes.	71.79	27.56	0.64	100.00

As per the table 3.6, majority (71.79%) of teachers in Science responded that they could understand to a great extent the ideas/skills to be acquired from each unit of Science text book through learning outcomes. 27.56% responded that they could understand the ideas/skills to be acquired only to some extent level. About 0.64% of teachers opined that they couldn't at all understand the ideas/ skills to be acquired from each unit of Science text book through the learning outcomes.

It is noteworthy that 28% of Science teachers could understand the ideas/skills to be acquired from each unit through the learning outcomes only to some extent level.

7. Learning outcomes according to the age-level of the learners.

The teachers are asked to respond whether the learning outcomes are given according to the age- level of the learners as 'To a great extent' or 'To some extend' or 'Not at all. The responses obtained from Science teachers were tabulated and analyzed. The result showing the per cent of teachers who responded are given in Table 3.7.

Table 3.7

Learning outcomes according to the age-level of the learners

Statement	To a great extent	To some extent	Not at all	Total
Learning outcomes are given according to the age-level of the learners.	58.97	37.18	3.85	100.00

The table 3.7 shows that 58.97% of teachers responded that learning outcomes are given according to the age-level of the learners to a great extent level while 37.18% opined that

learning outcomes are age specific only to some extent level. 4.43% of teachers opined that the learning outcomes are not at all age specific.

It has to be noted that 40% of the science teachers have the opinion that the learning outcomes given in different units of Science textbooks of class VII are to be effectively arranged according to the age level of learners.

8. Learning outcomes helpful for self-evaluation.

The teachers are asked to respond whether the learning outcomes imbibed in Science textbook are helpful for self-evaluation. The responses were marked as ‘To a great extent’, ‘to some extent’, and ‘Not at all’. The responses obtained were tabulated and analyzed. The result showing the per cent of teachers who responded are given in Table 3.8.

Table 3.8

Learning outcomes helpful for self-evaluation

Statement	To a great extent	To some extent	Not at all	Total
Learning outcomes are helpful for self-evaluation.	41.03	57.05	1.92	100.00

Table 3.8 shows that 57.05% of teachers opined that learning outcomes are helpful for self-evaluation only to some extent level whereas 41.03% of teachers in Science opined that the learning outcomes are helpful for self-evaluation to a great extent. Only 1.92% of teachers opined that the learning outcomes are not at all helpful for self-evaluation.

It is noteworthy that 57.68% of Science teachers have the opinion that the learning outcomes are helpful for self-evaluation only to some extent level.

9. Time bound completion of learning outcomes.

The responses regarding the possibility of time bound completion of the learning outcomes is recorded as ‘Yes’ or ‘No’. The responses are tabulated and analyzed. The percentage of responses is given in Table 3.9.

Table 3.9

Time bound completion of learning outcomes

Statement	Yes	No	Total
Whether the time bound completion of the given learning outcomes is possible	55.77	44.23	100.00

From Table 3. 9, it is found that 44.23% of teachers reported that the time bound completion of learning outcome is not possible in the case of Science text books of class VII. Only 55.77% of teachers agreed that time bound completion of learning outcomes is possible in Science.

It should be specially noted that the time bound completion of learning outcomes given in Science textbook of class VII is not possible

Reasons for inability to complete the given learning outcomes

9)a. Large number of teachers concluded that it is possible to complete the given learning outcome in a stipulated time. While the remaining part judged that due to the following reasons they could not complete the given learning outcomes in the prescribed time.

- Lack of time
- Excess number of lessons
- Presence of lengthy units
- Excess number of students
- Shortage of working days

10. Outcome focused methodology to ensure the level of learning proposed by RTE

The teachers were asked to record their response whether the outcome focused methodology is helpful in ensuring the attainment of level of learning envisaged by RTE. Their responses were recorded as ‘Yes’ or ‘No’. The responses tabulated and analysed is given in Table3.10.

Table3.10

Outcome focused methodology to ensure the level of learning proposed by RTE

Statement	Yes	No	Total
Outcome focused methodology helpful in ensuring the attainment of level of learning envisaged by RTE	78.85	21.15	100.00

Table 3.10 shows that majority of teachers (78.85%) opined that the outcome focused methodology is helpful in ensuring the level of learning envisaged by RTE. A significant number (21.15%) opined that outcome focused methodology is not helpful in ensuring the level of learning envisaged by RTE.

It is noteworthy that about 21% of teachers in Science have the opinion that the outcome focused methodology is not helpful in ensuring the level of learning envisaged by RTE.

II. LEARNING RESOURCES

The responses of Science teachers regarding learning resources in science text book of standard VII were analysed and the results are given under various subheadings.

Features of Science Textbook

The teachers are asked to mark their response regarding different features of the science textbook as 'Agree' and 'Disagree'. The responses obtained from 500 Science teachers were tabulated and analysed. The result showing the percent of teachers agreed or disagreed to different features of text book are given in Table 3.11

Table 3.11

Features of Science Textbook

Statements	Agree	Disagree
a) Content appropriate to the level of the learners	91.03	8.97
b) Conceptual Clarity	89.74	10.26
c) Adequate learning activities are given in the Text book to achieve the learning outcomes	84.62	15.38
d) Language appropriate to the level of learners	94.87	5.13
e) Pictures, lay-out, etc., arouse interest in the learners	88.46	11.54
f) Activities considering different level of learners	48.72	51.28
g) Adequate follow up activities are mentioned	88.46	11.54
h) Opportunity to foster the creativity of learners	83.97	16.03
i) Units are framed considering the possibilities of varied learning strategies	97.44	2.56
j) Concepts are arranged spirally	95.51	4.49
k) Slots for ICT are given for effective learning	97.44	2.56
l) Adequate activities are given in appropriate situations to enhance values and attitudes in learners	91.67	8.33

From the Table 3.11 it is found that among the different characteristics of the science Textbook a great majority of teachers (greater than 90%) reported that in the text book content is appropriate to the level of the learners, language used is appropriate to the level of learners, units are framed considering the possibilities of varied learning strategies,

concepts are arranged spirally, slots for ICT are given for effective learning and adequate activities are given in appropriate situations to enhance values and attitudes in learners. Majority of teachers (70-89%) agreed that in Science text book, there is conceptual clarity, adequate learning activities are given in the Text book to achieve the learning outcomes, Pictures, lay-out, etc., arouse interest in the learners, adequate follow up activities are mentioned and opportunities are there to enhance creativity of learners. But 51.28% of teachers opined that activities considering different levels of students are not present in the Science text book.

Even though majority of teachers favours the most of the characteristics of the Science text book, 51.28% of teachers opined that those activities considering different levels of students are not present in the Science text book.

Responses of teachers for not agreeing with features text book

The teachers are not agreeing with the learning activities given in the textbook for differently abled students. The reasons reported are:

- Lack of activities for catering inclusive learning
- Lack of adequate learning activities etc.

Most of the teachers do not agree that the language used in the TB is up to the level of the standard 7 students. The reasons reported are

- Difficult vocabulary which leads to lack of interest in reading among students
- Lack of previous knowledge.

In the area appropriateness of the content for the intellectual level of the students, most of the teachers disagreed. The reasons stated is

- The content is above the level of the students of standard 7.

Some of the teachers disagree that the layout and the pictures of the TB are attractive for the learners. The reasons highlighted are:

- Lack of clarity
- Blurred pictures

A few teachers disagree that there is clarity in the content of the TB. The reasons are :

- Difficulty in grasping the content properly due to difficult vocabulary and language.
- Ambiguity in the content.

A few teachers disagree that there are sufficient learning activities for the attainment of learning outcomes. The reason pointed out is:

- Some of the learning activities are not focused on the desired by outcome.

Some of the teachers could not agree that hints/links are provided for effective ICT enabled learning. The reason is:

- Provided links/hints in the TB are not accessible, suitable and appropriate.

A few teachers do not agree that there are ample opportunities for promoting creativity among students. The reason is:

- Lack of extended activities for enhancing creativity.

A few teachers are against the idea that sufficient number of extended activities is included in the text.

A few teachers disagree that the learning resources are arranged in a spiralling manner.

The reason pointed out are:

- The standard of the text activities in the first few units are above the standard of students
- A few teachers disagree that the possibilities of various teaching learning strategies are considered in the textbook. The reason are
- Lack of opportunity for field trip
- Lack of slots to make use of local resources, library, laboratory etc.

A few teachers could not agree that sufficient activities to promote values and attitudes are given in appropriate situation. The reasons are:

- The activities provided in textbook are from surrounding which the teachers are not familiar with.
- Lack of activities which cater the heterogeneous group of learners.
- Lack of provision for extra reading.

Features of Teacher Text

The teachers are asked to mark their responses regarding different features of the Science teacher text. The responses obtained from teachers were tabulated and analysed. The result showing the percent of teachers agreed or disagreed to different features of Science teacher text are given in Table 3.12

Table3.12**Features of Teacher Text: Science**

Statements	Yes	No
1. Text book and the teacher text are complementary to each other	84.62	15.38
2. Hints given are helpful for transacting content	89.10	10.90
3. Helpful in preparing TM	90.38	9.62
4. Specific instructions are given for CE and TE	85.26	14.74
5. Additional information for the transaction of the lessons are given	83.33	16.67
6. Suitable tools for evaluation are given	92.31	7.69
7. Reference books and different web sites given in the teacher text are helpful for the transaction of lessons	89.74	10.26
8. Periods allotted for each unit are sufficient for its transaction	51.92	48.08
9. Clarifies right-based education as envisaged by RTE Act	87.82	12.18
10. Helps the teacher in attaining clarity in the general approach of the curriculum	98.72	1.28
11. Provides clarity in professional ethics to be practiced by teachers	96.15	3.85

Table 3.12 revealed that, among the different aspects of the teacher text, a great majority of teachers (90% and above) in science reported that teacher text helps in preparing TM, suitable tools for evaluation are given in it, helps the teacher in attaining clarity in the general approach of the curriculum and provides clarity in professional ethics to be practiced by teachers.

According to majority of teachers (70-89%), text book and the teacher text are complementary to each other, hints given in the teacher text are suitable for transacting the content, specific instructions are given in teacher text for CE and TE, additional information for the transaction of the lessons are given, reference books and different web sites given in the teacher text are helpful for the teachers in the transaction of lessons and it gives clear cut idea about the right-based education as envisaged by RTE Act.

It is noteworthy that 48.08% of teachers reported the division of periods for each units is not suitable for its transaction and more than 10% of teachers reported that text book and the teacher text are not complementary to each other, hints given are not helpful for transacting content, the teacher text do not provided any instructions for CE and TE,

additional information for the transaction of the lessons are not given,reference books and different web sites given in the teacher text are not helpful for the transaction of lessons and it does not clarifies right-based education as envisaged by RTE Act.

From the results it can be inferred that, even though majority of teachers supports the science teacher text in many aspects, 48.08% of teachers reported the division of periods for each units is not suitable for its transaction and more than 10% of teachers reported that text book and the teacher text are not complementary to each other, hints given are not helpful for transacting content, the teacher text do not provided any instructions for CE and TE, additional information for the transaction of the lessons are not given,Reference books and different web sites given in the teacher text are not helpful for the transaction of lessons and it does not clarifies right-based education as envisaged by RTE Act.

Responses of teachers for not agreeing with the features of teacher text

Most of the teachers disagree that the periods allotted for each unit are sufficient for the transaction of lessons. The reasons are :

- Overcrowded classrooms
- Excessive no. of activities which is more than the content of the TB
- Lack of time for processing discourses.

A few teachers do not agree that the teacher text and TB are complementary. The reasons pointed are :

- Lack of details in TT
- Lack of clarification of hard spots
- Lack of link talks and discussion points.

A few teachers disagree that the given hints are helpful for the transaction of TB. The reasons are:

- Text related hints are not clear
- Lack of conceptual clarity in TT
- Lack of explanation for certain areas in the CB.

A few teachers could not agree that the hints given in the TT regarding the reference books and sites are helpful to the teachers in the transaction of TB. The reasons are:

- Lack of reference books suggested in the TT
- Lack of facility for visiting sites
- Lack of available of reference books.

Some teachers disagree that additional information given for better transaction of TB is sufficient. The reason stated is

- Clarification regarding the cultural and historical backgrounds of the literacy pieces provided in the TB is not given in TT.

A few teachers do not agree that proper instructions are given for CE and TE in the TT.

The reasons given here are:

- Lack of proper training/awareness in CE
- Lack of time for recording CE
- Lack of proper instructions for CE related to each discourse
- Ambiguity in CE and TB.

Some of the teachers do not agree that TT is resourceful for the preparation of TM. The reasons are:

- Lack of additional resources
- Lack of sample teaching normal
- Lack of instructions for the preparation a TM.

Some teachers could not agree that appropriate evaluation tools are provided in the TT.

The reason is

- Appropriate evaluation tools are not incorporated in TT.

Facilities in the school

The teachers are asked to mark their responses regarding facilities in the school. The responses obtained from teachers were tabulated and analysed. The result showing the percent of teachers are given in Table 3.13

Table 3.13

Facilities in the school

Facilities	Percentage
Science lab	87.18
ICT	92.31
Science club	97.44
Science corner	64.74
Reading corner	82.05
Maths lab	66.03
Display board	71.79
Maths club	89.74

Maths corner	55.77
Social science lab	55.13
Language lab	82.69
Social science club	87.18
Social science corner	51.28

It is revealed from table 3.13 that the majority of the teachers reported (70% -94%) that the facilities such as Science lab, ICT, Science club, Reading corner, Display board, Mathsclub, Language lab, and Social science club are available in schools. It is also found that 64% to 51% of teachers opined that Science corner, maths corner, Social science lab and Social science corner are available in schools .

From this it can be inferred that all most all the facilities are present in schools for effective teaching and learning.

Provisions to utilize instructional facilities available in Text book and Teacher text

Teachers are asked to report the provisions to utilise facilities such as lab, library, ICT, Display board, Magazines, Club and corner. The result obtained are explained under three headings

- 1) Emphasis of facilities in the content of the lesson
- 2) Necessary instructions to utilise facilities
- 3) Utilisation of the facilities in learning activities

1. Emphasis of facilities in the content of the lesson

The responses of teachers regarding the emphasis given to facilities in the content of the lesson in TB were analysed and the details are given in Table 3.14

Table 3.14

Emphasis of facilities in the content of the lesson

Facilities	Great extent	Some extent	Not at all
Lab	60.26	39.74	0.00
Library	48.72	49.36	1.92
ICT	65.38	33.98	0.64
Display board	44.87	46.16	8.97
Periodicals	57.69	37.18	5.13
Club	69.23	28.21	2.56
Corner	58.34	33.97	7.69

Table 3.14 revealed that more number of teachers (57% and above) reported that the content in the science text book has given emphasis to great extent level to utilise lab, ICT, Periodicals, club and corner while 39.74%,33.98%, 37.18% ,28.21% and 33.97% of teachers respectively opined these as 'some extent'. It is also found that 46.16% of teachers reported that the content of the lessons in science TB has given emphasis to utilise display board to some extent while 44.87% of teachers to great extent level. .

Inference: Though more number of teachers (57% and above) reported the content of the lesson has given emphasis to utilise lab, ICT, magazine, club and corner are to 'a great extent' more than 45% of teachers reported that library and display board are are given emphasis to some extent.

2. Necessary instructions to utilise facilities in TT

The responses of teachers regarding whether necessary instructions to utilise the facilities in TT were analysed and the details are given in Table 3.15

Table 3.15
Necessary instructions to utilise facilities in TT

Facilities	Great extent	Some extent	Not at all
Lab	68.59	31.41	0.00
Library	51.28	45.51	3.21
ICT	69.23	30.13	0.64
Display board	53.21	37.82	8.97
Periodicals	56.41	39.10	4.49
Club	58.97	39.11	1.92
Corner	58.97	35.26	5.77

Table 3.15 revealed that more than 50% of teachers (51.28% and above) reported that necessary instruction are provided in T.T. to a great extent to utilize the facilities in schools such as lab, library, I.C.T., Display board, periodicals, club and corner . While more than 30% of teachers opined that necessary instruction are provided in T.T. to 'some extent' for all the facilities mentioned.

Inference: Though more than fifty percentage of teachers (51.28% and above) reported that necessary instruction are provided in T.T. to a great extent to utilize the facilities in schools such as lab, library, I.C.T., Display board, periodicals, club and corner while more

than 30% of teachers opined that necessary instruction are provided in T.T. to 'some extent' for all the facilities mentioned.

3. Utilisation of the facilities in learning activities

The teachers are asked to mark their responses regarding the utilisation of the facilities in learning activities were tabulated and analysed. The details of analysis are given in Table 3.16

Table 3.16
Utilisation of the facilities in learning activities

Facilities	Great extent	Some extent	Not at all
Lab	57.69	41.67	0.64
Library	50.64	48.72	0.64
ICT	57.69	41.67	0.64
Display board	51.28	42.95	5.77
periodicals	55.12	41.67	3.21
Club	66.03	32.69	1.28
Corner	54.49	37.18	8.33

Table 3.16 revealed that more than 50% of teachers(50.64% to 66.03%) reported lab, library, I.C.T., Display board, periodicals, club and corner are utilised to a great extent for providing learning activities while more than 30% of teachers opined that these facilities are utilised only to some extent' for providing learning activities.

From this it can be inferred that the facilities such as lab, library, ICT, display board, periodicals, club and corner are used in schools for providing learning activities to students.

Analysis of responses regarding the limitations of facilities available in schools and suggestions for improvement of the facilities

The Teachers were asked to suggest difficulties experienced by them in the various areas mentioned above. The difficulties given by them are listed below:

Lab

Limitations

- Lack of equipments
- Lack of fund, shelves, time and teachers.

Suggestions

- Provide more equipments
- Provide financial aid and more facilities
- Provide subject related CD's
- Provide training for making use of the facilities of the lab.

Library(Limitations)

- Lack of sufficient subject related reference books
- Not equipped with proper facilities like shelves, space for reading, and librarian
- Lack of contemporary literary pieces.
- No separate room for library
- Lack of financial aid for the purchase of books and other equipments.

Suggestions

- Need more reference books
- Need contemporary literary pieces
- Library with all modern facilities
- Financial aid for improving library facilities .
- A separate room for library.
- Consider aided schools also for the financial aid form the part of the govt., SSA, RMSA.

ICT (Limitations)

- Lack of sufficient computer
- Overcrowded classroom
- Lack of subject related CDs
- Lack of proper training for handling ICT
- Lack of internet, projector and separate room

Suggestions

- Provide computers both for UP and HS
- Financial support
- Separate smart classroom
- ICT enabled classrooms
- Provide subject related CD's and projectors.

Display Board (limitations)

- No display boards
- Display boards are damaged and not replaced.

Suggestions

- Provide display board
- Provide financial aid.

Periodicals (limitations)

- Lack of subject specific magazines and publications.

Suggestions

- Provide financial aid for buying magazines
- Supply of free periodicals to all govt./aided school.

Club (limitations)

- Lack of time
- Lack of separate room and space for club function
- Lack of proper training to create awareness among the teachers about the functioning of the club.

Suggestions

- Allot separate period for club activities
- Reduce the content and activities in the TB to make the club activities more effective.

Corner(Limitations)

- The classrooms are not spacious enough for the functioning of reading corner
- Lack of sufficient books and furniture some other limitation.

Suggestion

- Provide sufficient space for functioning the corner

Resources other than the textbook and the teacher text for ensuring learning outcomes

The teachers are asked to mark their responses regarding resources other than the textbook and the teacher text for ensuring learning by putting tick marks. The responses obtained from Science teachers were tabulated and analysed. The result showing the percent of teachers responses on resources other than the textbook and the teacher text for ensuring learning outcomes are given in Table 3.17

Table 3.17**Resources other than the textbook and the teacher text for ensuring learning outcomes**

Resources	Responses in Percentage
Reading materials prepared by the teacher	92.31
Local resources	85.90
Resource CD (video, audio)	93.59
Pictures	98.72
Tables	85.90
Diagrams	63.46
Reports	75.00
Worksheets	92.31
Materials given by local government and other agencies	47.44
Others (specify)	19.23

From the table 3.17 it is found that a great majority of teachers reported that they use pictures (98.72%) , Resource CD (video, audio)(93.59%), work sheet (92.31%) and reading materials prepared by teachers(92.31%),other than TB and TT. Majority of teachers(70%-89%) reported that they are using tables, local resources and reports. Diagrams are used by 63.46% of teachers, and materials given by local government and other agencies by 47.44% .

The Teachers were asked to suggest extra materials other than the enlisted materials in the questionnaire to ensure learning outcomes. Most of the teachers opined that they use magazines, field trips, paper cutting and daily news quiz.

From the analysis it can be inferred that a number of materials other than TT and TB are used by teachers for teaching and learning.

Adaptation for the CWSN

Science Teachers were asked to respond which of the following like TB,TT etc. help them to adapt for CWSN. The responses of 500 teachers were collected and tabulated and presented in Table 3.18

Table 3.18
Adaptation for CWSN

Materials	Percentage
Text book	45.51
Teacher text	38.46
Infrastructure	41.03
Resource teachers	66.67

It is found from table 3.18 that 66.67% of teachers reported that resource teachers help them in the adaptation for the CWSN and it is followed by text book (45.51%), teacher text (38.46%) and Infrastructure (41.03%).

From this it can be inferred that majority of teachers reported that resource teachers help them in the adaptation for the CWSN

Teaching learning resources in the area of art-sports-health-work experience

The responses regarding teaching learning resources in the area of art-sports-health-work experience were collected and analysed. The details of analysis are given in Tables 3.19, 3.20 and 3.21 respectively

Table 3.19
Teaching learning resources in the area of art

Statements	Art		
	Great extent	Some extent	Not at all
Slots appropriate for conceptual transaction are provided in the TT	33.97	60.26	5.77
Instructions for framing required resources are provided in TT of different subjects	41.03	56.41	2.56
Suitable tools and materials are in the schools for the given area	15.39	63.46	21.15
Local resources could be made available in this area	17.95	57.69	24.36
TT for this area is effectively used in schools	28.85	64.1	7.05
Activity books are used effectively	28.21	60.89	10.90

Based on the table 3.19 it is found that 29.49% of teachers opined that in the Science text book there are slots for effective transaction of area related to art to a great extent dimension while 60.26% teachers opined to some extent level. About 32.69% of teachers reported that instructions for framing necessary resources for art education are there in TT

to a great extent level and 56.41% teachers to some extent level. Only 9.62% teachers opined that suitable materials related to art are available in the school to great extent while 63.46% reported that resources are available to some extent level. 24.36% of teachers reported that resources are not at all available in their schools while 57.69% reported it to some extent level. About 28.85% of teachers reported that they make use of TT for the area to a great extent level and 53.85% to some extent level. About 28.21% of teachers reported that they make use of activity book to a great extent level and 48.08% teachers opined to some extent level.

It can be inferred that teaching learning resources in the area of arts are present in the TT only to some extent level.

Analysis regarding the limitations and suggestions for improvement in the area of Art

The Teachers were asked to note their limitations experienced by them in the area of Art and they are also asked to give their suggestions to overcome the limitations. The limitations and the suggestions in the area of Art are presented below:

Limitations

- No special teachers to deal with art
- Lack of training
- Lack of time
- Lack of financial support
- Lack of materials
- Opposition from certain religions section.

Suggestions

- Appoint specialized teachers for art.
- Provide support from LSG.
- Conduct training programmes for other subject teachers to equip them to handle Art classes.

Table 3.20**Teaching learning resources in the area of Sports and health**

Statements	Sports – health		
	Great extent	Some extent	Not at all
Slots appropriate for conceptual transaction are provided in the TT	36.54	61.54	1.92
Instructions for framing required resources are provided in TT of different subjects	33.33	62.18	4.49
Suitable tools and materials are in the schools for the given area	21.15	67.95	10.90
Local resources could be made available in this area	21.8	58.33	19.87
TT for this area is effectively used in schools	39.75	51.92	8.33
Activity books are used effectively	44.87	45.51	9.62

Based on the table 3.20 it is found that 36.54% of teachers opined that in the Science text book there are slots for effective transaction of area related to Sports and health to a great extent dimension while 54.49% teachers opined to some extent level. About 33.33% of teachers reported that instructions for framing necessary resources for Sports and Health are there in TT to a great extent level and 51.92% teachers to some extent level. Only 16.03% teachers opined that suitable materials related to Sports and Health are available in the school to great extent while 67.95% reported that resources are available to some extent level. Very few (19.87%) reported that local resources are not at all available in their schools while 58.33% reported it to some extent level. About 27.03% of teachers reported that they make use of TT for the area to a great extent level and 51.92% to some extent level. About 32.69% of teachers reported that they make use of activity book to a great extent level and 45.51% teachers opined to some extent level.

From the analysis it can be inferred that teaching learning resources in the area of sports and health are present in the TT only to some extent level.

Analysis regarding the limitations and suggestions for improvement in the area of sports and health

Sports -Limitations

- No physical education teachers to handle sports.
- Lack of sports equipments

- Lack of ground
- Lack of fund
- Lack of time.

Suggestions

- Appoint physical education teachers at the earliest
- Local self- government should support the teachers
- Provide financial aid.

Health-Limitations

- Lack of specialized teachers to handle the area ‘health’
- Lack of training to handle the Health Education
- Lack of awareness regarding HE

Suggestions

- Provide nurses/health worker in school
- Provide training and awareness classes to all teachers
- Give training to teachers in Yoga classes.

Table 3.21

Teaching learning resources in the area of work experience

Statements	Work experience		
	Great extent	Some extent	Not at all
Slots appropriate for conceptual transaction are provided in the TT	41.02	55.13	3.85
Instructions for framing required resources are provided in TT of different subjects	37.82	58.97	3.21
Suitable tools and materials are in the schools for the given area	21.15	61.54	17.31
Local resources could be made available in this area	19.23	59.62	21.15
TT for this area is effectively used in schools	35.26	55.77	8.97
Activity books are used effectively	39.1	50.00	10.90

Based on the table 3.21 it is found that 33.97% of teachers opined that in the Science text book there are slots for effective transaction of area related to work experience to a great extent dimension while 55.13% teachers opined to some extent level. About 27.57% of

teachers reported that instructions for framing necessary resources for work experience are there in TT to a great extent level and 58.97% teachers to some extent level. Only 12.18% teachers opined that suitable materials related to work experience are available in the school to great extent while 61.54% reported that resources are available to some extent level. Very few (21.15%) reported that local resources are not at all available in their schools while 59.62% reported it to some extent level. About 21.15% of teachers reported that they make use of TT for the area to a great extent level and 55.77% to some extent level. About 24.36% of teachers reported that they make use of activity book to a great extent level and 50% teachers opined to some extent level.

It can be inferred that teaching learning resources in the area of work experience are present in the TT only to some extent level.

Analysis regarding the limitations and suggestions for improvement in the area of work experience

Limitations

- Lack of specialized teachers is a major limitation in promoting WE in schools.
- Lack of materials for it
- Lack of teachers
- Lack of time.

Suggestions

- Appoint WE teachers
- Allot fund by the LSG to buy materials for WE
- Provide training for all teachers.

Details of the products of the learning activities

The responses of teachers regarding the details of the products of the learning activities were analysed and the details are given in Table 3.22

Table 3.22

Details of the products of the learning activities

Items	Yes	No
Evaluation of products	98.72	1.28
Encourages learners outstanding products	97.44	2.56
Utilising the possibility of reusing products	91.03	8.97
Conducts exhibition of learners products	8.33	91.67

Table 3.22 reveals that regarding the products of the learning activities a great majority of teachers (greater than 90%) reported that they evaluated the products, found and encouraged learner's outstanding products and utilized the possibility of re-using the products. Only very few (8.33%) teachers opined that they conducted exhibition of learner's products. It is significant to note that a great majority(91.67%) teachers reported that they do not conduct exhibition of learner's products.

From this it can be inferred that majority of the teachers evaluate the products and also they encourage the outstanding products. It is also inferred that they utilize the chance for the reuse of the products. It is significant to note that a great majority(91.67%) teachers reported that they do not conduct exhibition of learner's products.

III. LEARNING PROCESS

The teachers were asked to mark their responses regarding the various learning processes that take place inside the classrooms. The responses of the Teachers, in this section, for the Quantitative items were recorded as Yes / No, and Always/Sometimes/Not at all. The Qualitative responses were noted and listed the responses were collected and analysed. The results are given under the sub-headings based on the subject of the teachers.

The responses of Science teachers were analysed and the results are given under various subheadings.

Difficulty experienced while planning learning activities in the classrooms

The responses obtained from teachers were tabulated and analysed. The result showing the percentage of teachers who responded is given in Table 3.23

Table 3.23

Difficulty experienced while planning learning activities

Statement	Responses in Percentage	
	Yes	No
Difficulty experienced while planning learning activities	67.95	32.05

It is seen from the table 3.23 that a majority (67.95%) of teachers reported that they experienced difficulties while planning learning activities whereas 32.05% mentioned that they did not experience any difficulty.

From this, it can be inferred that majority of the teachers experienced difficulties while planning learning activities.

Thrust areas where difficulty is experienced while planning learning activities

The teachers, who indicated that they experienced difficulties while planning the learning activities, were asked to indicate their responses regarding the thrust areas where difficulty is experienced while planning learning activities. The responses were analysed and the results are given in Table 3.24.

Table 3.24

Thrust areas where difficulty is experienced while planning learning activities

Thrust areas	Responses in Percentage
a) Learning Outcomes	9.62
b) Integrating arts, sports, health and work experience	60.26
c) Life skills	12.18
d) Utilising learning resources	8.33
e) (91.03%)	32.69
f) Community bound activities	21.79
g) Values/attitudes	7.69
h) Learning of the different levels of learners	66.67
i) Continuous evaluation	17.31
j) Areas to develop social commitment	16.03

The thrust areas where the Science teachers faced difficulties are: ‘Learning of the different levels of learners (66.67%), ‘Integrating arts, sports, health and work experience (60.26%), Slots for ICT (32.69%) Community bound activities (21.79%), Continuous evaluation (17.31%), Areas to develop social commitment (16.03%), Life Skills (12.18%), Learning Outcomes (9.62%), Utilising learning resources (8.33%) and Values/ Attitudes (7.69%).

Therefore it can be inferred that although the teachers experienced difficulty in various thrust areas, ‘Learning of the different levels of learners’, and ‘Integrating arts, sports, health and work experience’ are two thrust areas that posed difficulty to majority of Science Teachers.

The Teachers were asked to suggest remedial measures to overcome difficulties experienced by them in the various areas mentioned above. The suggestions given by them are listed under appropriate heads. They are:-

a. Learning Outcomes:

- The learning outcomes are to be made more clear and simple in the teacher text.

b. Integrating arts, sports, health and work experience:

- A large majority of the teachers are of the view that expert teachers in the field of arts, sports and work experience need to be appointed.
- More sports and arts activities are needed.
- A few teachers demand for more training in the field of arts, sports and work experience.

c. Life skills:

- Some teachers are of the opinion that more life oriented examples should be included in the text book.

d. Utilising learning resources:

- Some teachers suggest that required number of learning aids should be provided.
- The availability of teacher text should be increased.
- The skills and attitudes of learners to be attained in each unit are to be decided and required materials should be provided.

e. Slots for ICT:

- Some teachers suggest that provide more teachers and equipment to enhance ICT.
- Required number of computers and projectors should be made available.
- Few teachers are of the view that ICT orientation should be provided in each lesson.
- Majority of teachers requests for smart classrooms. Some teachers suggest that one laptop should be provided per class and provide internet facilities.
- The specific areas in which the possibilities of ICT are to be implemented should also be defined.

- Include more ICT based activities in the lessons and provide other ICT possibilities as resources.
 - Provide more training in ICT.
- f. Community bound activities:
- Some teachers suggest including more society related activities in the lessons.
 - Few teachers say that there are no opportunities to perform society related activities.
 - Support from parents is also essential for conducting such activities.
- g. Values/attitudes:
- h. Learning of the different levels of learners:
- Some teachers suggest that all the teachers should come well prepared with the materials required for handling the differently abled.
 - A few teachers are of the view that specific hints and simple activities for differently abled should be provided in the text book and teacher text in order to ensure learning and to bring all of them to a minimum level of achievement.
 - It is very difficult to bring the differently learners to the level of other learners.
 - Some teachers are of the opinion that instead of providing separate books for differently abled, include activities which can be done along with the learning process.
 - There should be correct interference of the resource teachers. More examples are to be provided in order to increase their standards.
 - Majority of them suggest that special training and service of resource teachers are need to bring learning outcomes to the differently abled.
 - A few teachers are of the view that the current text book should be adapted for the differently abled.
 - There should be ample opportunities for encouraging the differently abled.
 - Many teachers admit that they have difficulties in entering into the problems of the differently abled.
 - Some of the teachers are of the opinion that separate modules and special schools are essential for them.

- A small majority are arguing that while orienting on the learning skills the differently abled learners could not be properly attended.
- i. Continuous evaluation:
 - Some teachers suggest that more clarity is required in CE.
 - j. Areas to develop social commitment:
 - There is lack of time for conducting society related activities.
 - k. Other difficulties experienced by them were:-
 - Some teachers complain that the possibilities of issue based learning have decreased in the new curriculum.
 - Some others site lack of interest in learning and laziness in doing experiments as the difficulties.

Ensuring the development of process skills in learners through learning process

The teachers are asked to mark their Responses regarding ensuring the development of process skills in learners through learning process. The responses were analysed and the result showing the percentage of teachers who opined regarding the item is given in Table 3.25

Table 3.25

Ensuring the development of process skills in learners through learning process

Statement	Responses in Percentage		
	Always	Sometimes	Not at all
Ensure the development of process skills in learners through learning process	7.05	91.03	1.92

It is evident from the table 3.25 that great majority of Science teachers (91.03%) of Std VII reported that they sometimes ensured the development of Process skills in the learners through learning process, whereas only 7.05% could always ensue it in the class. 1.92% of Science Teachers responded that they were not at all able to ensure the development of Process skills in the learners through the learning process.

From this, it can be inferred that although majority of Science teachers of Std VII (91.03%) sometimes ensured the development of Process skills in the learners through learning process, only 7.05% could always ensue it in the class. Few teachers (1.92%) not at all ensured the development of process skills in the learners through the learning process.

Planning and implementing learning activities to attain conceptual clarity through multi-sensory experiences

The teachers are asked to mark their Responses regarding planning and implementing learning activities to attain conceptual clarity through multi-sensory experiences. The responses obtained from the Science teachers were analysed and the result is given in Table 3.26

Table 3.26

Planning and implementing learning activities

Statement	Responses in Percentage	
	Yes	No
Plan and implement learning activities to attain conceptual clarity through multi-sensory experiences	91.03	8.97

It is seen from the table 3.26 that a great majority of Science teachers (91.03%) reported that they planned and implemented learning activities to attain conceptual clarity through multi-sensory experiences, whereas 8.97% did not do so.

From this, it can be inferred that majority of Science teachers planned and implemented learning activities to attain conceptual clarity through multi-sensory experiences. However 8.97% of the teachers did not do so.

Appropriateness of the curriculum in enabling learners to apply the knowledge

The teachers are asked to mark their responses regarding appropriateness of the curriculum in enabling learners to apply the knowledge acquired through the learning process in their daily life. The responses obtained from the Science teachers were analysed and the result showing the percentage of teachers who responded is given in Table 3.27

Table 3.27

Appropriateness of the curriculum in enabling learners to apply the knowledge

Statement	Responses in Percentage	
	Yes	No
Curriculum is appropriate for enabling learners to apply the knowledge acquired through learning process in their daily life	93.59	6.41

It is evident from the table 3.27 a great majority of Science teachers (93.59%) of reported that curriculum is appropriate for enabling learners to apply the knowledge acquired through learning process in their daily life, whereas 6.41% did not agree to the statement.

From this, it can be inferred that although the curriculum is considered appropriate for enabling learners to apply the knowledge acquired through learning process in their daily life by majority of Science teachers, 6.41% of them considered otherwise.

Making use of the learning strategies appropriate to the content

The teachers are asked to mark their responses regarding making use of the learning strategies appropriate to the content. The responses obtained from the Science teachers were analysed and the result is given in Table 3.28.

Table 3.28

Making use of the learning strategies appropriate to the content

Statement	Responses in Percentage	
	Yes	No
Make use of the learning strategies appropriate to the content	85.90	14.10

The table 3.28 shows that majority of Science teachers (85.90%) reported that they made use of the learning strategies appropriate to the content, whereas 14.10% did not use the learning strategies appropriate to the content.

From this, it can be inferred that majority of Science teachers made use of learning strategies appropriate to the content. However 14.10% of teachers did not use learning strategies appropriate to the content.

Difficulties experienced while making use of learning strategies

The teachers were asked to indicate their responses regarding the difficulties while making use of learning strategies that are appropriate to the content. The responses were analysed and the results are given in Table 3.29

Table 3.29

Difficulties experienced while making use of learning strategies

Strategies that pose difficulty	Responses in Percentage
a) Investigative learning	12.82
b) Method of concept acquisition	1.28
c) Inductive thinking	7.05
d) Meta cognition	7.69
e) Co-operative leaning	3.21
f) Collaborative learning	5.13
g) Critical thinking	8.33

The learning strategies that were found difficult by the teachers of Std VII to use according to the content, in the descending order of difficulty were: Investigative learning (12.82%), Critical thinking (8.33%), Meta cognition (7.69%), Inductive thinking (7.05%), Collaborative learning (5.13%), Co-operative leaning (3.21%) and Method of concept acquisition (1.28%).

For Science teachers, the learning strategies - Investigative learning and Critical thinking were the most difficult learning strategies to use appropriate to the content.

Some teachers in Science also suggested that they feel difficulty in adopting the following strategies:

- Issue based approach
- Self-learning & Collaborative learning

Reasons for experiencing difficulty while making use of appropriate learning strategies

The teachers were asked to express their responses regarding the reasons for experiencing difficulty while making use of appropriate learning strategies. The responses were analysed and the results are given in Table 3.3

Table 3.30

Reasons for experiencing difficulty while making use of appropriate learning strategies

Reason	Responses in Percentage
a. Lack of time	78.21
b. Practical difficulty	37.18
c. Lack of facilities/materials	49.36
d. Lack of training	11.54

The reasons that were reported by the Science Teachers for experiencing difficulty while making use of appropriate learning strategies as evident from the table 3.30 were: Lack of time (78.21%), Lack of facilities/materials (49.36%), Practical difficulty (37.18%) and Lack of Training (11.54%).

Therefore it can be inferred that ‘Lack of time’ and ‘Lack of facilities/materials’ were the major reasons for experiencing difficulty while making use of appropriate learning strategies that were mentioned by the Science Teachers of Std VII .

Teachers also reported the following reasons for experiencing difficulty in utilising appropriate learning strategies:

- Lack of infrastructure
- Lack of adequate laboratory
- Large number of students
- Lack of training in the field of arts, sports and work experience
- Difficulty in handling learners of different levels together
- Engaging teachers in other works

Planning and implementing learning activities to overcome the constraints of slow learners

The teachers are asked to mark their responses regarding planning and implementing learning activities to overcome the constraints of slow learners. The responses were analysed and the result is given in Table 3.31

Table 3.31

Planning and implementing learning activities to overcome the constraints of slow learners

Statement	Responses in Percentage	
	Yes	No
Plan and Implement learning activities to overcome the constraints of slow learners	47.44	52.56

As seen from the table 3.31, less than half of Science Teachers of Std VII (47.44%) planned and implemented learning activities to overcome the constraints of slow learners, whereas more than half of them (52.56 %) could not.

Hence it can be inferred that majority of Science Teachers of Std VII did not plan and implement learning activities to overcome the constraints of slow learners.

Reasons for experiencing difficulty while planning and implementing learning activities to overcome the constraints of slow learners

The teachers, who reported that they experienced difficulties while planning and implementing learning activities to overcome the constraints of slow learners, were asked to indicate their responses regarding the difficulties they experienced. The responses were analysed and the results showing the percentage of teachers who marked the various difficulties, are given in Table 3.32

Table 3.32

Reasons for experiencing difficulty while planning and implementing learning activities to overcome the constraints of slow learners

Reason for Difficulties	Responses in Percentage
To plan and implement the activities for different levels of learners	32.69
Remedial Teaching	13.46
Lack of specially prepared learning materials	41.03
Lack of time	41.67

The reasons reported by the Science Teachers of Std VII for experiencing difficulties in planning and implementing learning activities to overcome the constraints of slow learners were: lack of time (41.67%), lack of specially prepared learning materials (41.03%), 'difficulties in planning and implementing activities for different levels of learners (32.69%) and difficulties in remedial teaching (13.46%).

Therefore it can be inferred that ‘Lack of time’ and ‘Lack of specially prepared learning materials’ were the reasons for experiencing difficulty that were mentioned by more than two-fifth of the Science Teachers of Std VII while planning and implementing learning activities to overcome the constraints of slow learners.

Teachers in Science also suggested the following difficulties in planning activities to overcome the limitations of slow learners:

- Lack of students
- Backwardness of students
- Lack of time
- Lack of parental support
- The science lab is not equipped
- No improvement in learning whatever is done
- Activities are less in text book and teacher text

Ensuring attainment of learning outcomes in different levels of learners

The teachers are asked to mark their responses regarding ensuring attainment of learning outcomes in different levels of learners. The responses obtained from the Science teachers were analysed and the results are given in Table 3.33

Table 3.33

Ensuring attainment of learning outcomes in different levels of learners

Statement	Responses in Percentage	
	Yes	No
Ensure attainment of learning outcomes in different levels of learners	26.28	73.72

As evident from the Table 3.33 it is found that 73.72% of the Science Teachers of Std VII did not ensure the attainment of learning outcomes in different levels of learners, whereas only 26.28% did so.

Hence it can be inferred that Majority of the Science Teachers of Std VII did not ensure the attainment of learning outcomes in different levels of learners.

Teachers in Science also reported the following difficulties in ensuring learning outcomes satisfactorily in different levels of learners.

- A large majority of teachers complain that the time is insufficient to handle the differently abled learners properly.
- The over-crowded classroom is another major issue.
- Majority of the learning outcomes in science cannot be brought to the differently abled learners properly.
- There is a lot of practical difficulty.
- Most of the teachers are not skilled due to lack of training, hence complete help of the resource teachers is essential to ensure the learning outcomes.
- Teachers find it difficult to provide variety in activities.
- There are no specially prepared learning materials and activities for them. The differently abled learners could not grasp the ideas completely.
- The increase in the number of these learners is another problem.
- Heavy content makes difficult for some teachers. Lack of cooperation of the learners is another issue.
- Teachers have many limitations in handling these learners due to lack of experience.
- Lack of awareness of the Braille alphabets creates difficulty in handling blind students.
- Irregularity of resource teachers.
- All of the activities provided are not suitable for the differently abled.
- There is lack of infrastructure.
- Some teachers suggest that the differently abled should be given instruction separately because it is difficult to give attention to other students.
- Many teachers complain that the differently abled cannot understand the contents of the text book.
- Mental retardation of these learners also creates problems. It is difficult for some teachers to plan and implement activities for differently abled/
- Lack of specially prepared materials is the issue for some other teachers.
- The outcomes can be attained only partially, there is no required output. Parents are not providing enough support.
- For some teachers it is difficult to identify and implement the learning outcomes.
- Lack of special training is a main issue for a majority of teachers. Lack of awareness, planning and learning materials also creates problems.
- There is lack of special activities.

- These learners find it difficult to concentrate on learning activities.
- The learning standard of these learners is very poor.
- Difficult to communicate with the deaf and dumb learners.
- Inability of the learners to read and write is another problem faced by some teachers.
- Continuous absenteeism of these learners also creates problems.

Implementation of learning activities to enrich the abilities of gifted learners

The teachers are asked to mark their responses regarding implementation of learning activities to enrich the abilities of gifted learners. The responses obtained from the Science teachers were analysed and the result is given in Table 3.34

Table 3.34

Implementation of learning activities to enrich the abilities of gifted learners

Statement	Responses in Percentage	
	Yes	No
Implement learning activities to enrich the abilities of gifted learners	90.38	9.62

A great majority of Science Teachers (90.38%) implemented learning activities to enrich the abilities of gifted learners, whereas 9.62% could not.

Therefore it can be inferred that although majority of Science Teachers implemented learning activities to enrich the abilities of gifted learners, 9.62% of them did not do so.

Reasons for experiencing difficulties in the implementation of learning activities to enrich the abilities of gifted learners

The teachers, who reported that they experienced difficulties in the implementation of learning activities to enrich the abilities of gifted learners, were asked to indicate their responses regarding the difficulties they had. The responses were analysed and the results are given in Table 3.35

Table 3.35

Reasons for experiencing difficulties in the implementation of learning activities to enrich the abilities of gifted learners

Reason for Difficulties	Responses in Percentage
a) Difficulty in planning challenging learning activities	6.41
b) Lack of suitable learning resources	8.33
c) Lack of time	8.97
d) Lack of training	1.92

The reasons that were reported by the Science Teachers for not being able to implement learning activities to enrich the abilities of gifted learners effectively were: Lack of time (8.97%), Lack of suitable learning resources (8.33%), ‘Difficulty in planning challenging learning activities (6.41%) and Lack of training (1.92%).

Therefore it can be inferred that ‘Lack of time’ and ‘Lack of suitable learning resources’ were the major reasons for experiencing difficulties in the implementation of learning activities to enrich the abilities of gifted learners that were mentioned by Science Teachers of Std VII .

Remedial measures suggested by Science Teachers for tackling the difficulties in enriching the abilities of gifted learners are listed below:-

- Include more materials for extra reading
- Provide more activities and possibilities for the gifted in the text book and teacher text
- Provide separate activity book for the gifted
- Provide chances for clustering and sharing of the gifted.
- Give importance to these areas in training

Application of suitable learning strategies to ensure maximum participation of all learners

The teachers were asked to mark their responses regarding applying suitable learning strategies to ensure maximum participation of all learners. The responses obtained from ... Science teachers analysed and the result showing the percentage of teachers who opined regarding the item is given in Table 3.36.

Table 3.36

Application of suitable learning strategies to ensure maximum participation of all learners

Statement	Responses in Percentage		
	Always	Sometimes	Not at all
Apply suitable learning strategies to ensure maximum participation of all learners	14.74	82.69	2.56

The table 3.36 suggested that majority of Science Teachers of Std VII (82.69%) sometimes applied suitable learning strategies to ensure the participation of all learners whereas 14.74% were always able to it apply them. 2.56% were not at all able to apply the learning strategies which ensured the participation of all learners.

Therefore it can be inferred that majority of Science Teachers of Std VII sometimes ensured the maximum participation of all learners while only 14.74% always ensured full learner participation.

Transaction of the content in a learner friendly manner

The teachers were asked to mark their responses regarding transaction of the content in a learner friendly manner. The result showing the percentage of teachers who opined regarding the item is given in Table 3.37.

Table 3.37

Transaction of the content in a learner friendly manner

Statement	Responses in Percentage		
	Always	Sometimes	Not at all
Transact the content in a learner friendly manner	59.62	38.46	1.92

More than half of the Science Teachers of Std VII (59.62%) always transacted the content in a learner friendly manner, whereas 38.46% sometimes transacted the content in a learner centered way. 1.92% of the teachers were not learner friendly at all.

Hence it can be inferred that more than half of Science Teachers of Std VII always transacted the content in a learner friendly manner while 38.46% were sometimes learner friendly in content transaction. It is significant to note that that few Science Teacher(1.92%) s were not at all learner friendly in content transaction.

IV. EVALUATION

Clarity in continuous Evaluation

The responses from teachers based on clarity in Continuous Evaluation(CE) were collected and analyzed. The details are given in table 3.38

Table 3.38
Clarity in Continuous Evaluation

Aspect	Responses in Percentage	
	Yes	No
Clarity in continuous assessment	87.82	12.18

From the table 3.38it is found that majority of teachers in Science (89.24%) reported positively that they got a clear cut idea about continuous assessment. At the same time 12.18% of teachers responded negatively.

Even though majority of teachers got a clear idea about continuous assessment, about 12.18% teachers did not get the clarity.

Areas which need clarity for teachers

The data based on areas which need clarity were collected from teachers who didn't get a clear idea about CE (12.18%) and were subjected to analysis. The details are given in table 3.39

Table 3.39
Areas which need clarity

Area	Responses in Percentage
Assessment of Learning Process	5.13
Portfolio Assessment	6.41
Unit Assessment	3.21
Recording	2.56

Based on Table 3.39 very few teachers in Science (below 10%) reported that they need clarity in Portfolio evaluation, process evaluation, Unit evaluation, giving grades and Recording.

Suggestions put forward by teachers for improvement regarding the areas of continuous evaluation strategies are:

Process evaluation-

- Suggest process to be evaluated in unit
- Avoid stage wise evaluation
- External evaluation and gall pole
- Include levels of differently abled children
- Provide separate worksheet for units

Port folio

- Collection of more pictures, discussion in class PTA
- Note book itself should be fort polio
- More training needed
- Seeking help of class mates

Unit evaluation

- Implement school level evaluation instead of unit evaluation
- Include adequate questionnaire\worksheet in TT, Unified evaluation

Grading

- Needs clarity, give score along with grade

Recording

- Provide a model for recording
- Keep the records of grading
- Provide printed indicators
- More training needed
- Simple recording system required
- Prepare a State wise model

However majority of teachers got a clear idea about continuous assessment, simultaneously a significant number of teachers need clarity in Continuous Evaluation.

Continuous Evaluation to ensure learning and to provide adequate support to learners

The data based on ability to carry out CE to ensure learning and to provide adequate support to learners were collected from teachers and were subjected to analysis. The details are given in table 3.40

Table 3.40

Continuous Evaluation to ensure learning and to provide adequate support to learners

Aspect	Responses in Percentage	
	Yes	No
Ability to ensure learning and to provide support to learners through CE	62.18	37.82

From the table 3.40 it is found that teachers in Science (62.18%) reported that they are able to ensure learning and to give support to the learners while carrying out CE. At the same time 37.82% teachers reported that they couldn't.

From the analysis it is clear that about 38% of teachers are not able to ensure learning and to provide support to learners through CE

Practical difficulties encountered while carrying out Continuous Evaluation

The data based on practical difficulties likely to be encountered while carrying out CE to ensure learning and providing support to learners were collected from teachers and were analysed. The details are given in table 3.41

Table 3.41

Practical difficulties while carrying out CE

Area	Responses in Percentage
Lack of awareness	8.33
Lack of time	28.21
Complexity of learning process	13.46
Overcrowded class rooms	16.67

Analysis of table 3.41 revealed that 28.21% teachers reported that Lack of time in CE was their major practical difficulty to ensure learning and providing support to learners while carrying out CE. The other difficulties reported are : Lack of awareness, complexity of learning process and overcrowded class rooms.

The above mentioned findings highlight the need for making necessary arrangements to overcome practical difficulties likely to be encountered while carrying out CE

Simultaneous taking place of Learning process and Evaluation

The data based on responses of teachers regarding the simultaneous taking place of learning process and evaluation were collected and analysed. The details are given in table Table 3.42

Table 3.42

Simultaneous taking place of Learning process and Evaluation

Aspects	Responses in Percentage	
	Yes	No
Learning process and evaluation taking place simultaneously	78.85	21.15

From the table 3.42 it is found that that majority of teachers in Science (78.85%) reported that learning process and the continuous evaluation process takes place simultaneously while 21.15% of teachers reported that that learning process and the continuous evaluation process is not taking place simultaneously.

It is clear that even though majority of teachers are able to carry out learning process and evaluation simultaneously a significant number of teachers are not able to undertake the task successfully.

Practical difficulties encountered to carry out learning process and evaluation simultaneously

The data based on responses of teachers regarding the practical difficulties encountered for simultaneous taking place of learning process and evaluation were collected and analyzed. The details are given in table Table 3.43

Table 3.43

Practical difficulties in learning process and evaluation

Practical difficulties	Responses in Percentage
Lack of proper planning	3.21
Lack of awareness about suitable strategies	3.85
To give more emphasis to learning process than evaluation	9.62

Table 3.43 shows that 9.62% of teachers responded that the difficulty to carry out learning process and evaluation simultaneously is due to give more emphasis to learning process than evaluation. The other difficulties reported are: Lack of time, records are not available from students in time, lack of awareness about suitable strategies and giving more emphasis to learning process than evaluation and lack of integration.

1. Specificity of indicators related to different areas of evaluation

The data based on responses of teachers regarding specificity of indicators related to different areas of evaluation were collected and analyzed. The details are given in table Table 3.44

Table 3.44
Specificity of indicators related to different areas of evaluation

Aspect	Responses in Percentage	
	Yes	No
Specificity of indicators related to different areas of evaluation	89.10	10.9

From the table 3.44it is found that 89.10% teachers reported that the indicators given to the areas for evaluation are specific while 10.9% teachers reported it as not specific.

It is significant to note that a significant percentage of teachers (10.9%) of teachers reported that the indicators related to different areas of evaluation are not specific.

Area which needs clarity for indicators

The data based on areas which need clarity for indicators were collected from teachers who didn't get a clear idea about it (10.9%) and were subjected to analysis. The details are given in table 3.45

Table 3.45
Area which needs clarity for indicators

Area	Responses in Percentage
Assessment of Learning Process	6.41
Portfolio Assessment	4.49
Unit Assessment	3.21

From the table 3.45 it is found that a very few teachers in Mathematics (5.22%) reported that they need clarity in unit assessment. A very few needs clarity of indicators in the area of assessment of learning process and portfolio assessment.

Problems faced by teachers during the assessment of learning process

The data based on responses of teachers regarding problems faced by teachers during the assessment of learning process were collected and analyzed. The details are given in table Table3.46

Table3.46

Problems faced by teachers during the assessment of learning process

Area	Responses in Percentage
Overcrowded classroom	38.46
Lack of suitable criteria	19.23
Lack of time	73.08
Lack of awareness of teachers	2.56
Lack of planning	2.56

The table 3.46 revealed that 73.08% of teachers reported that the main problem faced by them during assessment of learning process is lack of time and 38.46% teachers reported overcrowded classroom as their main problem. While a few percentage of teachers (below 5%) faced problems due to lack of awareness of teachers and lack of planning to the teachers.

Provision for self-evaluation and peer evaluation

The data based on responses of teachers regarding providing opportunities for Self evaluation and Peer evaluation were collected and analyzed. The details are given in table Table3.47

Table3.47

Provision for Self-evaluation and Peer evaluation

Aspects	Responses in Percentage	
	Yes	No
Self Evaluation	96.15	3.85
Peer Evaluation	81.41	18.59

From the table3.47 it is clear that a great majority teachers(96.15%)reported that they provide opportunities for self-evaluation and a majority of teachers (81.41%)for peer evaluation. But it is significant to note that 3.85% of teachers are not all providing any opportunity for peer evaluation and 18.59% for self-evaluation.

Preparation of indicators for Evaluation

The data based on responses of teachers regarding preparation of indicators for evaluation were collected and analyzed. The details are given in table Table 3.48

Table3 .48

Preparation of indicators for Evaluation

Aspects	Responses in Percentage
Prepared by Teacher	42.31
Prepared by learners themselves	12.82
Derives from classroom discussion	71.79

The table3.48 revealed that about 71.79% of teachers in Science reported that they themselves prepare indicators for evaluation, while 42.31% of teachers reported that learners prepare indicators whereas a few teachers(below 13%) prepare indicators for evaluation by classroom discussion .

It is found that even though majority of teachers in Science themselves prepare indicators for evaluation, learners also prepare indicators through classroom room discussions..

Provision of ample opportunity for learners to present their products related to self-assessment and peer assessment

The data based on responses of teachers regarding Provision of ample opportunity to learners to present their products related to self-assessment and peer assessment. The details are given in table Table.3.49

Table 3.49

Opportunity for learners to present their products related to self-assessment

Aspect	Responses in Percentage	
	Yes	No
Provision of ample opportunity to learners to present their products related to self-assessment and peer assessment	87.82	12.18

From the table 4.49 it is found that majority of teachers in Science (87.82%) reported that they provide ample opportunity for learners to present their products related to self-evaluation and peer evaluation and 12.18% of teachers are not providing such opportunities.

From the analysis it is clear that even though majority of teachers in Science (87.82%) are providing ample opportunity for learners to present their products related to self-evaluation and peer evaluation a significant number of teachers are not providing such opportunities.

Suitable changes made in the classroom process for learners’ evaluation

The data based on responses of teachers regarding necessary changes to be made in the classroom process for learners’ evaluation were collected and analysed. The details are given in Table3.50

Table3.50

Suitable changes made in the classroom process for learners’ evaluation

Aspect	Responses in Percentage	
	Yes	No
Suitable changes in the classroom process considering the learners’ assessment	83.33	16.67

From the table3.50 it is found that majority of teachers in Science (83.33%) reported that they make necessary changes in the classroom process considering the learners’ assessment while 16.67% of teachers are not making any necessary changes.

It is clear that even though majority of teachers are making necessary changes in the classroom process considering the learners’ assessment 16.67% of teachers are not making any necessary changes.

Changes incorporated for student evaluation

Teachers pointed out some changes they have made for learners’ assessment. They are

- Group activities/Discussions
- Self -evaluation
- Group evaluation

- Classes outside classrooms
- Modifies learning activities according to the level of learners
- Peer tutoring
- Field visit
- Conceptualisation through simple examples
- More importance given for individual activities
- More experiments/ repeated activities
- Collections
- Change in grouping
- Remedial teaching with bright students
- More use of ICT possibilities
- More attention for student individuality
- Special activities for students of different levels
- Simplifying activities
- Seminar
- Individual activities improvement of backward students
- Different learning activities for same concept
- Students records one word question for each unit
- Portfolio
- Assignments
- Students design experiments
- Test paper
- Follow up activities different from TB are given
- Making concept map for each unit
- Emphasis on consolidation
- Activities suitable for all students
- Daily revision
- Work sheet prepared
- Preparation of learning materials
- Given more importance to group activities
- Helping students for resource collection
- Ensuring the involvement of backward students in group activities

- Projects
- Adaptation of learning activities
- Conducting field trips
- Extra reading(9.30 to 10 am)
- Remedial teaching
- Allotting more time for those who need it
- Unit test
- Preparation of models
- Magazine
- Album
- Quiz
- Ability grouping
- Experimental aids prepared in the classrooms
- Home assignments completed in the class itself
- Reviewing
- Products of students
- Exhibition of individual aids
- Evaluated seminar based on performance of students
- Grading
- Activities to improve multiple intelligence
- Co operative learning
- Group experiment
- Improvisation by students
- Individual experiments
- Prepared reading notes through group discussion
- Evaluating products prepared by students themselves

Tools / techniques used for unit evaluation

The data based on responses of teachers regarding tools and techniques for unit evaluation were collected and analysed. The details are given in Table 3.51.

Table3.51

Tools / techniques used for unit evaluation

Area	Percentage
a. Quiz	80.13
b. Open book test	23.72
c. Class test	91.67

The table3.51 revealed that a great majority of teachers in science (91.67%) reported that they use class test as their tools / techniques for unit wise evaluation. While 80% of teachers in science use Quiz program and 23.73% class test.

It is revealed that teachers uses class tests, quiz, and open text book for unit evaluation.

The other techniques and strategies for unit evaluation recorded by teachers include:

- Seminar
- Work sheet
- Debates Projects
- Questioning
- Field trips
- Club activities
- Concept mapping
- Constructing questions
- Preparing cross words with answers
- Surveys
- Flow chart
- Note book
- Scribbling
- Finding true or false
- Dictation
- Elocution
- Assignment
- Group discussion
- Peer evaluation

- Oral test
- Interview
- Visiting factory
- Exhibits
- Peer evaluation
- Experiments
- Portfolio

Records considered for continuous evaluation

The data based on responses of teachers regarding records considered for continuous evaluation were collected and analysed. The details are given in Table3.52.

Table 3.52

Records considered for continuous evaluation

Area	Percentage
a. Note book	93.59
b. Worksheet	87.82
c. Writings	69.87
d. Short notes	80.13
Project/seminar reports	84.62
Answer sheets of unit wise assessment	79.49

Table 3.52 revealed that a great majority of teachers in science (93.67%) reported that they consider notebook for continuous evaluation . Majority of teachers (87.72%) reported that the use worksheets. It is followed by Project/seminar reports (84.62%), short notes (80.13%), Answer sheets of unit wise assessment (79.49%) and writings 969.87%).

From this it can be inferred that Teachers in Science consider notebook, worksheet, answer sheets of unit wise assessment, project/seminar reports, writings, and Short notes or unit evaluation, among which notebook is the most widely used record.

Apart from above said records teachers reported that they are using other records for continuous evaluation. They are:

- Quiz
- Models
- Products related to learning process

- Survey report
- Improvisation by students
- Excellence in group activities
- Portfolio
- Oral questions
- Doing experiments
- Charts
- Activities designed/ prepared by students
- Reading
- Report presentation
- Drawing
- Short notes of experiments
- Debates
- Designed instruments
- Constructive activities
- Presentation of simple experiments
- Album
- Elocution
- Observation notes
- Story/poems/ diagrams
- Exhibits
- Self -note
- Seminar report
- Teaching aid
- Excellence in group activities
- Club activities
- Peer evaluation

Feedback given based on continuous evaluation

The data based on responses of teachers regarding feedback given based on continuous evaluation were collected and analysed. The details are given in Table3.53

Table 3.53

Feedback given based on continuous evaluation

Aspect	Responses in Percentage	
	Yes	No
For learners	98.72	1.28
For parents	76.28	23.72

From the table 3.53 it is revealed that a great majority of teachers in Science (98.72%) reported that they provide feedback based on continuous assessment and 76.28% teachers provide feedback to parents. It is significant to note that 1.28% of teachers are not giving feedback to learners and 23.72% not to parents.

From the analysis it is found that even though majority of teachers are giving feedback based on CE to learners and parents, a significant number of teachers are not providing feedback to parents. But it is serious to consider this since feedback to learners is very important in learning process.

Provision for remedial teaching based on Continuous Evaluation

The data based on responses of teachers regarding provision for remedial teaching based on continuous assessment were collected and analysed. The details are given in Table 3.54.

Table 3.54

Provision for remedial teaching based on Continuous Evaluation

Aspect	Responses in Percentage	
	Yes	No
Provision for remedial instruction based on feedback from Continuous Evaluation	88.46	11.54

Table 3.54 revealed that majority of teachers (88.46%) in Science reported that they were conducting remedial teaching based on the feedback obtained from continuous evaluation for learners and parents, while 11.54% of teachers are not providing any remedial teaching based on continuous evaluation.

It is found that even though majority of teachers (88.46%) in Science are conducting remedial teaching based on the feedback obtained from continuous evaluation for learners and parents, a significant number of teachers are not taking any remedial measures based on continuous evaluation.

Methods chosen for remedial instruction

The data based on responses of teachers regarding methods chosen for remedial instruction were collected and analysed. The details are given in Table 3.55.

Table 3.55

Methods chosen for remedial instruction

Areas	Percentage
a. Changing the process	44.87
b. Giving support	71.15
c. Peer tutoring	45.51
d. follow-up activities	69.23

From the table 3.55 it is found that 71.15% of teachers responded that they give support to learners whereas 69.23% teachers provide adequate follow up activities, 44.87% change the ongoing process and 45.51% adopted peer tutoring for remedial instruction.

It is clear that remedial instruction is provided by giving support to parents, giving follow up activities, changing the process, and peer tutoring.

Teachers reported that they adopted the following ways for remedial teaching:

- Explanation
- Repeated learning
- Special classes
- Examples
- Classes of experienced teachers
- Strategies
- Worksheets
- Visual media
- Personal care
- Instructions
- Expert classes
- Different activities
- Home visit and
- Extra classes

Accurate recording of continuous evaluation

The data based on responses of teachers regarding making accurate recording of Continuous Evaluation were collected and analysed. The details are given in Table3.56

Table3.56

Accurate recording of continuous evaluation

Aspect	Responses in Percentage	
	Yes	No
Recording of continuous evaluation	58.33	41.67

From the table3.56 it is found that 58.33% of teachers reported that they were making accurate record about the details of the continuous Evaluation. But it is very important to note that 41.67% of teachers are not making accurate record about the details of the continuous Evaluation.

It is found that even though 58.33% of teachers are not making accurate recording of the Continuous Evaluation, a very good number of teachers are not properly maintaining it.

Practical difficulties in recording continuous evaluation

Teachers who are not recording continuous evaluation accurately recorded that they are facing. practical difficulties. The reasons reported are:

- Lack of time
- More number of students
- Difficulty in daily evaluation in a specific period only
- Difference in attitude of students
- Abundance of dimensions/ learning outcome
- Differently abled students
- Difficulty to follow specific format
- Difficulty while having number of classes
- Difficulty in bringing all the students to same level
- Same teacher should handle different subjects
- Lack of co operation
- Data not available from students in time
- Abundance of records
- More activities

- Lack of clear instruction
- Difficulty in evaluating extracurricular activities
- Activities in the portfolio are not completed at the same time

Framing separate evaluation strategies for CWSN learners

The data based on responses of teachers regarding framing separate evaluation strategies for CWSN learners were collected and analysed. The details are given in Table3.57

Table3.57

Framing separate evaluation strategies for CWSN learners

Aspect	Responses in Percentage	
	Yes	No
Framing different evaluation strategies for CWSN learners	46.79	53.21

From the table 3.57 it is clear that 53.41% of teachers in Science reported that they are not framing separate evaluation strategies for CWSN learners whereas 46.69% are making the same .

From the analysis it is clear that more than 50% of teachers are not framing separate evaluation strategies for CWSN learners.

Teachers reported that they framed other strategies evaluating CWSN learners. They are:

- Explanation with pictures
- Oral test
- Drawing
- Simple activities
- Collection of pictures
- Colouring
- Involvement in group activities
- Alphabet chart
- Collection Special materials
- Class test
- Small constructive words
- Gifts
- Dictation

- Specially mentioning in teaching manual
- Opportunity for selecting instruments
- Special tools used for evaluation
- Adaptation
- Constructive activities
- Field trip
- Games
- Assessing special abilities
- Improvement in self confidence through their ability based activities
- Identifying shapes
- Tabulating and charts
- Preparing separate modules
- Scaffolding of peers
- Worksheet
- Separate questionnaire
- Individual attention
- Use of specific tools

Recording of responses based on Term Evaluation

The data based on responses of teachers regarding Responses of teachers based on Term Evaluation were collected and analysed. The details are given in Table3.58

Table3.58

Recording of responses based on Term Evaluation

Statements	Great extent	Some extent
Clear awareness about TE	91.67	8.33
The tools adopted for Term Evaluation are adequate for evaluating learning outcomes.	70.51	29.49
Include variety questions which give emphasis to thinking skills	57.05	42.95

Table3.58 revealed that majority of teachers (91.67%) reported that they have a clear awareness about TE to a great extent level. At the same time 70.51% of teachers reported that tools adopted for TE are adequate to a great extent for evaluating the learning outcomes while 57.05% opined that TE includes varied questions which give emphasis to thinking skills to a great extent level and 42.955 to some extent level. .

Difficulties experienced in TE

The responses from teachers based on difficulties experienced by teachers related to Term Evaluation (TE) were collected and analyzed. The details are given in table 3.59 and 3.60 respectively

Table 3.59

Difficulties experienced in TE

Aspect	Responses in Percentage	
	Yes	No
Teachers face difficulties related to TE	19.23	80.77

It is clear from the table 3.59 that the majority of teachers in Science (80.77%) did not face difficulties regarding TE. About 19.23% of teachers reported that they face difficulties regarding TE .

Even though majority of teachers are not facing any difficulties related to TE, a significant number of teachers have difficulties related to TE.

Difficulties experienced by teachers in Term Evaluation

The responses from teachers based on difficulties experienced by 19.23% teachers in Science related to Term Evaluation (TE) were collected and analyzed. The details are given in table 3.60

Table 3.60

Difficulties experienced by teachers in Term Evaluation

Aspect	Percentage
a) Inadequate evaluation strategies	11.54
b) Difficulty in grading	10.90
c) Difficulty in recording	8.33

From the table 3.60 it is seen that 11.54% of teachers in Science reported that the difficulties they experienced related to term evaluation is due to inadequate evaluation strategies. The other difficulties reported are: difficulty in grading (10.90%) and difficulty in recording (8.33%).

From the analysis is found that few teachers reported that they experienced difficulties related to term evaluation. The other difficulties are inadequate evaluation strategies, difficulty in grading and difficulty in recording.

The teachers reported the reasons for experiencing difficulties in conducting CE. They include:

- Lack of time
- Low grade for gifted students
- The school function according to Muslim calendar
- Implementation of “all promotion”
- Lack of suitable questions
- Difficulty in written expression
- Lack of training
- Continuous evaluation recording`

Evaluation related to art, sports and work experience

The data based on responses of teachers regarding effective conduct of evaluation related to art, sports and work experience were collected and analysed. The details are given in table Table 3.61.

Table 3.61
Evaluation related to Art, Sports and Work Experience

Aspect	Responses in Percentage	
	Yes	No
Conduct of evaluation related to art, sports and work experience	40.38	59.62

It is clear from the table 3.61 that 59.62% of teachers reported that they are not able to conduct evaluation related to arts, sports and work experience effectively. At the same time 40.38% teachers reported that they are able to conduct it effectively.

It is significant to note that 40% of the teachers are not able to conduct evaluation related to arts, sports and work experience effectively.

The following suggestions are made by teachers for effective evaluation related to arts and sports activity learning:

- Appoint training teachers
- Give in-service training
- Improve infrastructure
- Complete the activities within the time limit
- Provide evaluation tools and work sheet
- Give classes of resourceful teachers

Evaluation and recordings carried out for Socio-Emotional areas

The data based on responses of teachers regarding evaluation and recordings carried out for Socio-Emotional areas were collected and analysed. The details are given in Table:3.62

Table3.62

Evaluation and recordings carried out for Socio-Emotional areas

Area	Percentage
Empathy	66.03
Intrapersonal skill	86.54
Problem solving capacity	55.77
Critical thinking	38.46
Self-awareness	76.28
Communicative skill	70.51
Coping with emotions	57.69
Decision making	75.64
Creative thinking	51.92
Coping with stress	35.90

From the table 3.62 it is seen that that majority of teachers(86.54%) responded that they are evaluating and recoding interpersonal skill, self awareness(76.28%), decision making (75.64%), and communication skill (70.51%) under socio-emotional areas. It is followed by Empathy (66.03),Coping with emotions & Coping with emotions (57.69),Problem solving capacity(55.77),Creative thinking(51.92),Critical thinking(38.46),Coping with stress(35.90).

It is important to note that a significant number of teachers are not carrying out evaluation and recording of socio-emotional area like empathy, problem solving skill, creative thinking, critical thinking,and coping with stress under socio emotional areas. Even though majority of teachers are evaluating and recording socio-emotional areas like interpersonal

skill, decision making, self-awareness and communication skill, a significant number of teachers are not yet carrying out evaluation and recording in these areas.

V. SCIENCE (Subject Specific)

Adequacy of resources in the text book for enhancing learning

The responses of teachers regarding the adequacy of resources in the text book for enhancing learning were collected and analysed. The details are given in the table 3.63

Table 3.63

Adequacy of resources in the text book for enhancing learning

Statement	Fully Agree	Partially agree	Do not Agree
The contents provided in the Text Book are suitable for the attainment of the objectives of learning Science.	76.28	23.72	00
The activities given in the Text Book are suitable for the attainment of science process skills.	73.72	26.28	00
Activities provided in the Text Book are adequate enough to develop creativity and scientific thinking.	53.85	38.46	7.69
Appropriate activities are included in the Text Book for the development of scientific attitudes.	67.95	25.05	8.00
The Text Book provides possibilities for children to make use of the scientific knowledge they have attained, in daily life.	60.26	34.62	5.12

From the table 3.63 it is found that majority (76.28%) teachers reported that they are fully agreed that contents provided in the Text Book are suitable for the attainment of the objectives of learning Science while 26.28% of teachers are partially agreed with the fact. Majority of teachers (73.72%) agreed that the activities given in the Text Book are suitable for the attainment of science process skills. Only 53.85% of teachers fully agreed that activities provided in the Text Book are adequate enough to develop creativity and scientific thinking while 38.46% teachers partially agreed with the fact at the same time 7.69% of teachers do not agree with the fact.

Difficulties faced by teachers in transacting lessons.

The responses of teachers regarding the difficulties faced by teachers in transacting lessons were collected and analysed. The details are given in the table 3.64

Table 3.64
Difficulties faced by teachers in transacting lessons

Problems	Yes	No
In designing experiments.	21.79	78.21
Preparing improvised materials.	38.46	62.54
In ensuring the full participation of the students.	39.10	60.90
In ensuring process skills.	13.46	86.54
Arriving at conclusion	10.26	89.74
Preparing experiment notes.	8.97	91.03
finding out the resources to ensure the attainment of learning outcomes.	16.03	83.97
making use of learning resources fruitfully	9.62	90.48

From the table 3.64 it is found that 39.10 % teachers reported that they find difficulty in ensuring the full participation of the students and for 38.46% teachers, in preparing improvised materials . The other difficulties reported by very few teachers are in designing experiments, finding out the resources to ensure the attainment of learning outcomes, arriving at conclusion, making use of learning resources fruitfully and preparing experiment notes.

Table 3.65
Percentage of responses based on teacher text

Statement	Fully Agree	Partially agree	Do not Agree
Sufficient knowledge about the aims of learning Science are there in the teacher text	66.67	33.33	00
There is a clear indication regarding how to plan each learning activity to ensure learning outcomes	62.18	37.82	00
It is able to provide sufficient extra knowledge that helps in conceptualization	53.85	46.15	00
Mentioned different learning strategies for learning science	50.00	50.00	00

From the table 3.65 it is found 66.67% teachers fully agreed that sufficient knowledge about the aims of learning Science are there in the teacher text. It is followed by a clear indication regarding how to plan each learning activity to ensure learning outcomes(62.18%), provide sufficient extra knowledge that helps in

conceptualization(53.85%) and mentioned different learning strategies for learning science(50%). It is also important to note that about 50% partially agree with the above statements.

VI . CLASS OBSERVATION ANALYSIS

This section deals with the analysis of the data collected through class observation using rubrics. 12 classes (**standard VII**) Science were observed. The details are given under appropriate heads.

Table 3.66
Class Observation Schedule

Sl. No	Dimensions	Very Good	Good	Needs Improvement	Does Not Meet Standards	No Remarks	
1	Teaching Manual	2	7	1	-	1	
2	Preparation	3	7	1	0		
3	Interest and Motivation	3	5	3			
4	Learning Activities	Nature	3	5	3		
		Continuity	3	6	2		
		Use of Learning Materials	5	5	1		
		Knowledge Construction through Learning Activities	3	6	2		
		Development of Attitude and Values	2	6	2		1
		Involvement of Learners	5	5	1		
5	Learning Environment	1	6	4			
6	Classroom Intervention	5	5	1			
7	Reflective Thought	3	3	3	1	1	
8	Consolidation	3	3	2	1	1	
9	Evaluation Process	2	6	2	0	1	
10	Overview of the Class	2	6	2	0	1	
	Total	46	81	30	2	6	

1. Teaching Manual (TM)

From among the 12 classes observed only two teachers have prepared TM creatively using additional resources and activities other than Teacher Text, where as seven teaches planned the TM as per the curriculum using essential resources and activities. It is also observed that one of the TMS needs improvement. It is serious to note that two teachers engaged the classes even without Teaching Manual.

2. Pre-planning

It is observed that only three teachers ensured in advance the necessary pre-requisites in learners to acquire the concept through creative and varied introductory activities, while seven teachers provided introductory activities to get adequate pre-requisites to all learners. At the same time two teachers provided activities necessary for basic pre-requisite knowledge to very few learners. But two teachers not at all provided any introductory activities to ensure necessary pre-requisite.

3. Interest and motivation

Table - shows that only three teachers aroused interest and motivation among the learners by framing life-oriented and thought provoking activities using description, stories and leaning materials. At the same time five teachers made the class interesting using descriptions, stories and learning materials. But two of them only described the content and asked question to make the students motivate. It is observed that no effort was taken by one of the teachers to make the class neither interesting nor motivating.

4. Learning Activities

From among the 12 classes observed, in five classes learning activities suggested in TB and TT were carried out effectively (Eg).In 3 classes varied learning activities provided were suitable for developing reflective thinking among learners. In three other classes observed it is found that similar activities were carried out mechanically.

Six of the teachers transacted the content in a sequential order in 3 classes observed and spontaneous progress in learning and timely recording in the TM were there in another three classes observed and in two classes continuity was losing in certain places.

Among the 12 teachers 5 teachers were seen using novel learning aids prepared using available resources capable of attaining conceptual clarity and other five used easily

accessible learning aids recommended in the curriculum and only one teacher used minimum number of learning aids.

Regarding the knowledge construction through learning activities it is seen that 3 teachers help the learners to attain higher level of knowledge construction through reflective questioning and debating, 6 teachers intervenes actively by clearing doubts where as 2 teachers only tries to clarify the doubts aroused.

It is seen that only two teachers are providing slots for learning activities to develop attitudes, values and social responsibilities identified based on the content, six teachers provides learning activities for emotional development in addition to activities for intellectual development and two teachers only tried to give advice for developing attitudes and values.

It is again observed that five teachers enable learners to identify their roles and ensured their involvement in group and individual activities, other five teachers enable learners to identify their roles in learning situations correctly, but the involvement of all learners were not ensured and only one teacher didn't ensure the involvement of all learners equally in learning process.

5. Learning Environment

From the classes observed it is noted that only one teacher creates infrastructure/ICT facilities and independent social and emotional environment suitable for learning activities for all types of learners, while 6 teachers provide learning activities based on available infrastructure/ICT facilities and creates essential situation necessary for independent social and emotional environment. It is serious to consider that five teachers are not even using available infrastructure/ICT facilities.

6. Class room intervention

As per the analysis it is observed that 5 teachers intervened with all types of learners as mentors rather than teachers where as five teachers made only essential interventions to attain learning out comes and two of them intervenes only as much required to transact the content.

7. Reflective thinking

It is observed that out of the 12 classes observed 3 teachers provides opportunity for reflective thinking in the concerned class itself and finds possibility for Remedial measures

and other three teachers made timely recording of the reflective thinking as per the teaching manual given in the TT. It is also noted that four teachers have made timely evaluation and recording very rarely.

8. Consolidation

It is found that in the 3 classes observed teachers consolidated individual and group activities so as to ensure the learning outcomes in between and at the end of the class, where as the other three consolidated group activities timely and at the end of the class. In the next three classes observed teachers consolidated only at the end of the class, but no consolidation was there in three classes observed.

9. Evaluation

From class room observation it is found that two teachers used strategies to evaluate the learning outcomes and used different types of evaluation continuously, while 6 teachers were seen using adequate strategies to evaluate learning outcomes based on the content. It is also seen that two of the teachers didn't consider all levels of learners and not used all types of evaluation. In two of the classes observed evaluation as envisaged by curriculum was not seen.

10. Overview

From the analysis it can be tentatively concluded that among the 12 classes observed majority classes come under the second category ie. 'good' and it is serious to consider that few classes observed needs improvement.

VIII. ANSWER SHEET ANALYSIS-BASIC SCIENCE

The answer sheets of students were analysed and the details are given in table3. 67

Table 3.67

Answer Sheet Analysis – Consolidation (Activity – Wise)

ACTIVITY	ASSESSMENT
*Observing the picture *Assessment *Application of knowledge (Integrated farming)	6 out of 16 students were able to observe and gather information from the picture and express the concept in the form of essay. 8 out of 16 were not able to observe and gather information from the picture and express the concept in the form of essay. Only 2 students were able to properly display the output expected out of them from the activity.
*Completing the table from the data collected after observing the picture *Implementing the ideas received from various sources (Convex/concave lens)	7 out of 16 students were not able to identify convex and concave lenses. They could not differentiate the peculiarities of the two and hence were not able to say the uses of these lenses in daily life. 2 students could not express themselves because of poor writing skills. 2 students were unable to use their knowledge in practical life. 3 students had difficulty in receiving ideas and responding properly. Only 1 student was able to internalize the concept and effectively express it.
Agriculture club Vegetable garden Applying the ideas received from various sources	No one out of 16 students was able to respond correctly to the question. 8 students could not respond since they were not able to comprehend the question. 8 students could partially understand the question and they were able to respond to it accordingly. The fact whether the absence of picture or table in the question has affected the response of the children should be critically investigated.
Mirrors Uses of mirrors Properties of images Applying the concepts	10 out of 16 students had inability in expressing the concept. 13 students had not developed skills in making instruments. The making of Periscope given in the textbook should be given due importance. Students should get enough training in arranging the mirrors in different patterns and making different types of periscope.
Experiment	12 out of 16 students are backward in planning the experiments and predicting the results. 2 of them had not attempted the question. As in Activity 3, the students are not able to grasp the concept given as a paragraph.
	7 out of 16 students do have a general standard in the concept of classification. But they fail to utilize their knowledge in another setting. 6 students should improve their knowledge about classification. This activity is included to test the memory of students.
Acid and Alkali Classification Problem solving	8 out of 16 students should enrich their capacity of observing pictures and collecting information to be used in a new life situation. 2 students have good observation skills, but they

Application of knowledge	should learn to apply the knowledge appropriately. 1 student has achieved unexpected standards. 3 students are not able to express concepts in the form of essay. Opportunities for conducting experiments should be amply provided inside the classrooms.
	All the 16 students are not able to use their problem solving skills in a new environment. 3 students are able to analyse the table. 1 student has not attempted the question. Activities related to natural indicators should be given due importance in science classes.
GENERAL ASSESSMENT	All questions were set in accordance with the learning outcomes. Questions which provided possibilities of observation got good response from the students. There is a general backwardness in writing essays. Language skills of the students should be developed

overview

1. Students are not skilled in collection of information through observation and using them in new life situations.
2. Students are not able to differentiate between convex and concave mirrors, hence fail to apply the knowledge.
3. Students are not skilled in making various instruments. They are not able to predict results scientifically.
4. Students should improve their problem solving skills.

VIII. ANALYSIS OF THE TEXTBOOK AND HAND BOOK

1. Conformation with the constructivist paradigm

All the lessons do not go in conformation with constructivism.

The learning experiences provided in the text book are not always adequate enough to lead the learners through constructivist paradigm. Instead of helping the children to construct their own ideas, in many lessons, direct ideas are given to children before they attain the expected outcome.

Unit 1. In developing ideas about ‘integrated farming’, after analyzing the pictures, the children could have been lead to construct ideas of their own regarding the reciprocal benefits of different fields of agriculture when integrated through direct experiences, contrived experiences, or analytic questions.

Unit 2. Activity- ‘While looking in a mirror’-Leading the child to analyse observations while standing in front of a mirror, through probing questions, would be sufficient for the child to realize the idea of lateral inversion. The question “Doesn’t our right side appear left and our left side right in the image?” helps the children only for guided observation, not independent observation leading to knowledge construction.

Unit 3. The topics “We can also make a fire extinguisher” and “Magic of the egg” could be made in tune with constructivism if adequate opportunities for drawing inferences from independent observation were given, instead of telling the ideas directly after giving the learning activities.

Unit 4. Through the alimentary canal

In this unit, after asking the question, “what is the diversity seen in the mode of procuring food?” a table is given in which the child is expected to write the organism, its food and mode of feeding. As the mode of procuring food and mode of feeding are two different ideas, the child may get confused. This is not in tune with constructivism.

In the topic excretion through skin, the children could be lead to construction of ideas by themselves related to hygiene of the body through suitable analytic questions.

Unit 5. This unit is almost in conformity with constructive paradigm

Unit6. The last lessons in chapters 6 and 10 do not agree with constructivism as the ideas and concepts are presented directly before the students instead of letting them to construct their own ideas.

Unit 7,8&9 follow constructivist approach

2. Suitability of the content in attaining learning outcomes

The content of almost all the units are suitable and sufficient to achieve the learning outcomes. But in certain units, such as the ideas leading to a particular learning outcomes are scattered in many places, so that an activity leading to the conclusion of these bits of information should be given to the children.

Unit 1. The content given in this unit related to ‘integrated farming’ is sufficient to create awareness about the concept. But it is not sufficient to create an awareness about the prospects of integrated farming as a relatively less expensive way of agriculture as there is a mutually contributive relation between the different forms of agriculture.

The content is not sufficient to realize the learning outcome, “Explain the importance of organic farming.” Though there are bits of information related to this concept, they are not consolidated to make a clear idea about the importance of organic farming.

Unit 2. and 3. Content is sufficient

Unit 4. An activity for consolidating the idea about washing hands, protection of teeth and protection of skin should have been given to ensure the achievement of the learning outcome- “understand the importance of maintaining body hygiene and practice it”.

Unit 5. Content is sufficient

Unit 6. Scientific ways of examining the soil for finding out the soil profile should have been included. The area air pollution and its solution should be more comprehensive. In this unit, the words term water absorption capacity should be changed to water storing capacity, as both are conveying different ideas.

Unit 7. Content is almost sufficient. But the activities ‘Ball in the funnel’ (inverted), filling the balloon and pressure everywhere often do not work as expected and so so they should be avoided. The device for measuring the pressure in the tyre should also be introduced.

Unit 8. Content is sufficient

Unit 9. The activity given under the title “Transmission of heat in metals” is often difficult to perform as uniform rods of three metals is not often available for the activity.

Unit 10. Content related to the learning outcome “get involved in activities to detect adulterants in food substances and construct devices for this purpose” is not sufficient to realize the prescribed learning outcome.

3. Suitability of the content for activity based learning

The content of almost all the units are suitable for activity based learning except some isolated areas which need more scientific approach in this respect.

Unit 1. The area ‘integrated farming’, though give opportunities for activity based learning, the activities given are not sufficient to ensure the achievement of the respective learning outcome. Here, more activities giving direct experiences and contrived experiences as well as ideas were in need.

Unit 2. Content is sufficient

Unit 3. Content is sufficient

Unit4. Content is sufficient

Unit 5. Content is sufficient

Unit 6. Content is sufficient

Unit 7. Content is sufficient

Unit 8. Content is sufficient

Unit 9. Content is sufficient

Unit 10. Activities ensuring purposive observation and experimentation are not adequately given. Along with the questions given for analysis, it would be better if some cases, news paper cuttings, tables etc are also included

4.Diversity of learning activities

Diversity of learning activities is ensured in almost all units

Unit 1. Although diverse or different activities for giving some direct experiences are given in this Unit, ample scope for giving more activities for independent exploration could be given in this unit.

Units 2,3,4 and 5 offer diverse learning activities to children

Units 6,8,10 have relatively less diverse activities

Units 7&9 are rich with diverse activities

5. Child friendly language

All the units follow a child friendly approach with respect to the use of language

6. Suitability and clarity of pictures, graphs and maps

In some of the units, the pictures, graphs etc are not sufficient or clear. In many instances, the illustrations given are vague, insufficiently not adequately labelled, or not suited to the learning activity.

Unit1. The area “agriculture and cattle rearing” is introduced as a part of integrated farming. But instead of giving the picture of cattle rearing, the picture of ploughing using cattle is given. The other pictures given near to this also indicates poultry farming and goat rearing respectively but not as a part of integrated farming making them rather insufficient.

Unit 2. Illustrations are suitable

Unit 3. Illustrations are suitable

Unit 4. All the illustrations are vague. In page No 50, the third figure is expected to show a bird eating guava fruit but the picture looks as if it is a bat. The sixth one is too vague to be recognized. So these images does not help the child to get a mental image of what is expected.

In page No 52, under the caption, ‘for food’, the images of sandalwood tree, Loranthus and cascuta are given but they are not clear enough to be recognized.

There are also images which are not suitable to the context of the portion under study. In page 58, the digestive system of some animals is given. These images are neither clear, nor leading to any further discussion or activity. Therefore the relevance of these images in this context is not clear.

In the case of illustration related to nutrition in amoeba, the food particle is too light in colour to catch the attention of the children. Further, the diagrams were not labelled so that it is not easy for the child to figure out the mode of nutrition in amoeba without the help of the teacher.

In Unit 5, the picture of hydroelectric PowerStation is not labelled so that the child can't recognize the parts of a hydroelectric power station by itself.

Unit 6. The photos given in this unit are not clear so that it is fairly may become difficult to convey the ideas using these photos to children.

Unit 7. In this unit almost all the pictures are drawn manually and so they are very clear

Unit 8. In this unit, the illustration of blood circulation is not clear. The images of hearts of different organisms given in the unit as images are also not clear and so that the child cannot could not recognize them even though labeling is has been done.

Unit 9. In page 121, The picture of an incubator is given, but it is not so clear and the child can never find out what it is without the help of a teacher.

Unit 10. In this unit, the photos given are rather vague.

7. Areas which need further explanation

Some areas in the textbook need further explanation.

Unit 1. After detailing the process of grafting, it would be better if the situations in which grafting used is mentioned-ie., grafting of branches of the female plant to male plant in nutmeg for ensuring fruit formation, grafting of the more desirable varikka variety of jack fruit tree to the stock in order to get varikka variety (Ensuring quality) etc related to the topic.

Detailing of only one type of grafting-ie approach grafting alone is given in the unit. Mention should have been made mentioning about the other methods of grafting, like such as wedge grafting, cleft grafting etc and Eco friendly pest control – Along with the application of bio-pesticides, biological control should also have been included so that the students would develop an attitude of protecting to protect the organisms that prey upon the pests.

Unit 2- No explanation is needed

Unit 3- Instead of just mentioning the use of alkalies for industrial purposes, explanation of the purpose uses should have been given with example could also be given.

Unit 4. Explanations for by giving more emphasis to for the development of the concept “ hygiene of food and hygiene of body for health protection”, should have been included.

The portion 'Chew and grind', need more explanations regarding the similarity of the human teeth with herbivores than with carnivore, mentioning that basically, nature has created human beings as a herbivore, not as carnivore

Unit 5- No explanation needed

Unit 6-The area water purification need more explanation

Unit7 Bernoulli's principle needs more explanation

Unit 8 Page 112. The heart of organisms needs explanation

Unit 9&10 No need of further explanation

8.Areas in which the explanations are to be simplified

No need of simplification in any of the units except unit 7 where a major experiment leading to the learning outcome should be given more stress importance and others can be given as independent experiments followed by discussion.

9.Slots for continuous evaluation

There are ample slots for continuous evaluation in all units. Yet it would be much useful if there are more worksheets in the Handbook that can be detached from it for the convenience of taking copies to be given to the students

10. Instances of disparity

There are no instances of disparity of any form throughout the textbook

11. Prospects of democratic values

There are enough slots for the development of democratic values in almost all the units

Unit-1.Conservation of nature and food production are the duties of a citizen and hence one must engage in food production without harming the nature. This will help to inculcate an attitude for developing and cultivating high quality crop .

Unit3- Ability for using acids and alkalies in daily life ensuring safety of self and others

Unit4.Attitude for working for the conservation and preservation of nature by realizing that it is essential for the sustenance sustaining of life forms including humans.

Realize the fact that each organism has an important place role in sustaining the nature as it is , and should try to protect them.

Unit5. Conservation and economic use of electricity for sustainable development of the country using electricity by adopting measures for safety of self oneself and others

Unit6. Develops awareness about the health hazards of pollution and form an attitude of making the surroundings pollution free, for a healthy life for the self oneself and others

Unit 10. Develop awareness about the different methods of food adulteration, its health hazards, and an attitude to prevent food adulteration when and where possible.

12. Student friendly lay out

All the units invariably keep a student friendly layout

13. Suitability of the teachers text for transaction of the lessons

The teacher text is suitable for the transaction of all the units except unit8 in which content enrichment is needed.

14.Others

It is better that the size of the textbook is reduced to that of the teacher text so that it will be more handy to students. The quality of the printing should be raised and the pictures should be printed with clarity.

Inferences

1. All the lessons do not go in conformation with constructivism.
2. The content of almost all the units are suitable and sufficient to achieve the learning outcomes. But in certain units, the ideas leading to a particular learning outcome are scattered in many places, so that an activity leading to the conclusion of these bits of information should be given to the children.
3. The content of almost all the units are suitable for activity based learning except some isolated areas which need more scientific approach in this respect.
4. Diversity of learning activities is ensured in almost all units
5. All the units follow a child friendly approach with respect to the use of language
6. In some of the units , the pictures, graphs etc are not sufficient or clear. The in many instances, the illustrations given are vague, insufficiently labelled, or not suited to the learning activity.
7. Some areas in the textbook need further explanation.

8. No need of simplification in any of the units except unit 7 where a major experiment leading to the learning outcome should be given more stress and others can be given as independent experiments followed by discussion.
9. 9 There are ample slots for continuous evaluation in all units
10. There are no instances of disparity of any form throughout the textbook
11. There are enough slots for the development of democratic values in almost all the units
12. All the units invariably keep a student friendly layout
13. The teacher text is suitable for the transaction of all the units except unit8 in which content enrichment is needed.
14. It is better that the size of the textbook is reduced to that of the teacher text so that it will be handier to students. The quality of the printing should be raised and the pictures should be printed with clarity.

II. D. Social Science

LEARNING OUTCOME

The teachers were asked to mark their responses regarding the characteristics of learning outcomes envisaged in the Curriculum 2013. The responses were collected and analyzed. The results are given under the subheadings based on the subject of the teachers.

Social Science Class VII

The responses of Social Science teachers are analyzed and the results are given under various subheadings.

Clarity of the features of the learning outcomes

The teachers are asked to mark their opinion regarding the clarity of different features of the learning outcomes envisaged in the curriculum 2013 as ‘Yes’ or ‘No’. The responses obtained from Social Science teachers were tabulated and analyzed. The result showing the percent of teachers who have and do not have clear idea regarding the different features of the learning outcomes envisaged in Curriculum 2013 are given in Table 4.1

Table 4.1

Clarity of the features of the learning outcomes

Statement	Responses in Percentage	
	Yes	No
Clarity regarding features of the learning outcomes envisaged by curriculum 2013	88.89	11.11

From Table 4.1, it is observed that majority of teachers (88.89%) in Social Science have a clear idea regarding the characteristic features of the learning outcomes envisaged in the curriculum 2013. But 11.11% of teachers in Social Science opined that they don't have the clear idea of the characteristic features of the learning outcomes envisaged in the curriculum 2013.

Therefore it can be inferred that the characteristic features of the learning outcomes envisaged in the curriculum 2013 are clear to majority of teachers who are teaching Social

Science in class VII. It should be noted that among the Social Science teachers of Class VII a small group do not have clarity regarding the characteristic features of the learning outcomes envisaged in the curriculum 2013.

The areas which they need more clarity regarding characteristic features of the learning outcomes envisaged in the curriculum 2013 are mentioned below:

- Learner achievement through subject wise learning.
- LO's that can be watched and measured
- Short term and long term achievement
- Activity oriented learning outcomes
- Values, attitudes, and social commitment
- Co-operative learning
- ICT oriented learning
- Inclusive education
- Life skill oriented education
- Problem solving attitude
- Tolerance, love and co-operation to inculcate nationality

Ensuring the attainment of expected learning outcomes

The result showing the per cent of teachers who ensure and do not ensure the attainment of expected learning outcomes through the transaction of the content are given in Table 4.2.

Table. 4.2

Ensuring the attainment of expected learning outcomes

Statement	Responses in Percentage	
	Yes	No
Ensuring the attainment of the expected learning outcomes in all learners through the transaction of the content.	37.91	62.09

Majority of teachers (62.09%) opined that they could not ensure that all learners achieved the expected learning outcomes to be attained through the transaction of the content. Only 37.91 % of teachers could ensure that all learners achieved the expected learning outcomes through the transaction of the content.

It is noteworthy that majority of Social Science teachers learners couldn't ensure the achievement of the expected learning outcomes through the transaction of the content.

The teachers who couldn't ensure the attainment of expected learning outcomes in all learners through the transaction of the content suggested different measures to be practiced and included in the Social textbook of class VII. Measures suggested by them for ensuring learning outcomes in all learners are:

- Remedial teaching
- Adaptation
- Provision for ICT usage
- Provision for extended activities
- Through situational learning
- Through peer tutoring
- Life experience
- Co-operative work

Differentiating short term and long term learning outcomes

The teachers are asked whether they could differentiate between the short term and long term learning outcomes imbibed in Social Science textbook as 'To a great extent', 'To some extent', and 'Not at all'. The responses given by the teachers are collected and analyzed. The result obtained is given in Table 4.3

Table 4.3

Differentiating short term and long term learning outcomes

Statement	Responses in Percentage		
	To a great extent	To some extent	Not at all
Differentiation between the short term and long term learning outcomes	35.29	63.40	1.31

From table 4.3, it is clear that majority (63.40%) of teachers could differentiate between short term learning outcomes from long term learning outcomes only to some extent. Among the teachers 1.31% couldn't differentiate between the short term and long term learning outcomes. Only 35.29% of teachers could differentiate between short term and long term learning outcomes.

Therefore it is inferred *that a majority of teachers in Social Science could not differentiate between short term and long term learning outcomes.*

Observable and measurable learning outcomes given in different units

The teachers are asked whether the learning outcomes are arranged in such a way to ensure the continuity and development of it from the lower to higher classes. The responses marked by Social Science teachers are as ‘Yes’ and ‘No’. The result collected and analyzed is given in Table.4.4

Table 4.4
Spiraling of learning outcomes to ensure continuity and growth

Statement	Responses in Percentage	
	Yes	No
Arrangement of the learning outcomes to ensure the continuity and development from the lower to higher classes	90.20	9.80

From the table 4.4, it is clear that a great majority (90.20%) of teachers in Social Science agreed that the learning outcomes are arranged in such a way as to ensure the continuity and development of it from lower to higher classes.

Thus it can be inferred that *the spiraling of learning outcomes are ensured from lower to higher classes.*

The teachers who opined that the learning outcomes are not arranged in such a way as to ensure the continuity and development of it from lower to higher classes also suggested that

- Learning contents of the classes 5th, 6th and 7th should be inter-connected.
- The content should be appropriate to the level of students.
- Learning content should be from students own experience.
- Ensure knowledge of letters of the alphabet.
- Content related with ancient age, middle age and modern age should be included in the 5th, 6th and 7th learning process.

Observable and measurable learning outcomes given in different units

Social Science teachers were asked whether the learning outcomes given in different units are observable and measurable. The teachers responded to the question and it was collected and analyzed. The per cent of teachers who responded to this question is recorded in Table 4.5.

Table 4.5

Observable and measurable learning outcomes given in different units

Statement	Responses in Percentage	
	Yes	No
Opinion regarding observable and measurable learning outcomes	86.27	13.73

From the table 4.5, it is clear that majority of teachers (86.27%) in Social Science opined that the outcomes given in different units are observable and measurable. While 13.73% of teachers opined that the learning outcomes given in different units are not observable and measurable.

Majority of the teachers are of the opinion that the learning outcomes given in different units are observable and measurable. But it is noteworthy that about 14% of teachers disagree with it

Acquisition of ideas/ skills from each unit through the learning outcomes

The teachers were asked whether they could understand the ideas/ skills to be acquired from each unit through the learning outcomes. The responses collected and analyzed are recorded in table.4. 6.

Table 4.6

Acquisition of ideas/ skills from each unit through the learning outcomes

Statement	Responses in Percentage		
	To a great extent	To some extent	Not at all
Understanding the ideas/ skills to be acquired from each unit through the learning outcomes.	58.82	37.91	3.27

As per the table 4.6, more than half (58.82%) of teachers in Social Science responded that they could understand to a great extent the ideas/skills to be acquired from each unit of Social Science text book through learning outcomes. 37.91% responded that they could

understand the ideas/ skills to be acquired only to some extent. About 3.27% of teachers opined that they couldn't at all understand the ideas/ skills to be acquired from each unit of Social Science text book through the learning outcomes.

It is noteworthy that 41% of Social Science teachers couldn't understand the ideas/skills to be acquired from each unit to a large extent through the learning outcomes.

Learning outcomes according to the age-level of learners

The teachers are asked to opine whether the learning outcomes are given according to the age- level of the learners as 'To a great extent' or 'To some extend' or 'Not at all. The responses obtained were tabulated and analyzed. The result showing the percent of teachers who responded are given in Table4.7.

Table 4.7

Learning outcomes according to the age-level of learners

Statement	Responses in Percentage		
	To a great extent	To some extent	Not at all
Learning outcomes are given according to the age-level of the learners.	55.26	39.87	4.58

The table 4.7 shows that, 55.26% of teachers who teach Social Science in class VII responded that learning outcomes are age specific to a great extent. 39.87% of teachers opined that the learning outcomes are age specific to some extent. 4.58% of teachers opined that the learning outcomes are not at all age specific.

It can be inferred that *the learning outcomes given in different units of Social Science textbooks of class VII are not according to the age level of learners according to nearly two-fifths of the teachers.*

Learning outcomes helpful for self-evaluation.

The teachers are asked to respond whether the learning outcomes imbibed in Social Science textbook are helpful for self-evaluation. The responses were marked as 'To a great extent', 'to some extent', and 'Not at all'. The responses obtained were tabulated and analyzed. The result showing the per cent of teachers who responded are given in Table 4.8.

Table 4.8

Learning outcomes helpful for self-evaluation

Statement	Responses in Percentage		
	To a great extent	To some extent	Not at all
Learning outcomes are helpful for self-evaluation for learners	32.22	57.52	3.27

Table 4.8 shows that 57.52% of teachers in Social reported that learning outcomes are helpful only to some extent for self-evaluation whereas 3.27% of teachers opined that the learning outcomes are not at all helpful for self-evaluation. Only 32.22% of teachers opined that the learning outcomes are helpful for self-evaluation to a great extent level.

It is noteworthy that majority of Social Science teachers have the opinion that the learning outcomes are helpful for self-evaluation to some extent level.

Time bound completion of learning outcomes

The responses regarding the possibility of time bound completion of the learning outcomes is recorded as 'Yes' or 'No'. The responses are tabulated and analyzed. The percentage of responses is given in Table 4.9.

Table 4.9

Time bound completion of learning outcomes

Statement	Responses in Percentage	
	Yes	No
Time bound completion of learning outcomes	56.21	43.79

From Table 4.9, it is found that 56.21% of teachers reported that the time bound completion of learning outcome is possible in the case of Social Science text books of class VII. But 43.79% of teachers agreed that time bound completion of learning outcomes is not possible in Social Science.

It should be specially noted that 43.79% of the teachers have the opinion that the time bound completion of learning outcomes given in Social Science textbook of class VII is not possible.

The teachers who opined time bound completion of learning outcomes is not possible in Social Science cited the following reasons for their inability to complete the given learning outcomes on time

- Lack of time
- Due to excess content
- Due to extra duties given to teachers such as election duty, census, youth festivals etc.
- Presence of differently abled students
- Shortage of teachers in IT, work experience, art education and health education
- Length of learning process
- Lack of proper language skills

Outcome focused methodology to ensure the level of learning proposed by RTE

The teachers were asked to record their opinion whether the outcome focused methodology is helpful in ensuring the attainment of level of learning envisaged by RTE. Their responses were recorded as ‘Yes’ or ‘No’. The responses tabulated and analyzed is given in Table 4.10.

Table 4.10

Outcome focused methodology to ensure the level of learning proposed by RTE

Statement	Responses in Percentage	
	Yes	No
Outcome focused methodology helpful in ensuring the attainment of level of learning envisaged by RTE	90.85	9.15

Table 4.10 shows that a great majority of teachers (90.85%) opined that the outcome focused methodology is helpful in ensuring the level of learning envisaged by RTE. 9.15% opined that outcome focused methodology is not helpful in ensuring the level of learning envisaged by RTE.

Majority of teachers in Social Science have the opinion that the outcome focused methodology is helpful in ensuring the level of learning envisaged by RTE. However, nearly one-tenth of the teachers disagreed.

II. Learning resources

The responses of Science teachers regarding learning resources in Social Science text book of standard VII are analyzed and the results are given under various subheadings.

Features of Social Science Textbook

The teachers are asked to mark their opinion regarding different features of the Social science textbook as 'Agree' and 'Disagree'. The responses obtained from teachers were tabulated and analyzed. The result showing the percent of teachers agreed or disagreed to different features of text book are given in Table 4.11

Table 4.11
Features of Social Science Textbook

Statements	Response in Percentage	
	Agree	Disagree
a) Content appropriate to the level of the learners	90.85	9.15
b) Conceptual Clarity	94.77	5.23
c) Adequate learning activities are given in the Text book to achieve the learning outcomes	92.16	7.84
d) Language appropriate to the level of learners	92.16	7.84
e) Pictures, lay-out, etc., arouse interest in the learners	87.58	12.42
f) Activities considering different level of learners	43.14	56.86
g) Adequate follow up activities are mentioned	95.42	4.58
h) Opportunity to foster the creativity of learners	95.42	4.58
i) Units are framed considering the possibilities of varied learning strategies	95.42	4.58
j) Concepts are arranged spirally	89.54	10.46
k) Slots for ICT are given for effective learning	94.12	5.88
l) Adequate activities are given in appropriate situations to enhance values and attitudes in learners	94.12	5.88

From the Table 4.11, it is found that a great majority of teachers (greater than 90%) in Social Science reported that in the text book ,content is appropriate to the level of the learners, units have conceptual clarity, adequate learning activities are given in the Text book to achieve the learning outcomes, Language used is appropriate to the level of learners, adequate follow up activities are mentioned, opportunity to foster the creativity of learners are there, units are framed considering the possibilities of varied learning strategies, have slots for using ICT for effective learning and adequate activities are given in appropriate situations to enhance values and attitudes in learners.

.Majority of teachers (70-89%) agreed that in Social Science text book, pictures, lay out, etc. arouse interest in learners and learning materials are arranged in a spiraling method. and About 54% of teachers disagreed that activities considering the specially abled are present in Social Science text book. But 56.86% of teachers opined that activities considering different levels of students are not present in the Social Science text book.

Even though majority of teachers favours most of the characteristics of the Social Science textbook, 56.86% of teachers opined that those activities considering different levels of students are not present in the Social Science text book.

The teachers, who are not happy with the features of the text book, reported the following difficulties they experienced:

- Lack of activities to link with previous knowledge
- Lack of activities for inclusive learning
- Some part of the content is above the level of the students of standard 7.
- The layout and the pictures of the TB are not attractive for the learners
- Lack of clarity and Ambiguity in certain areas of the content
- Hints/links provided for effective ICT enabled learning are not effective
- Lack of extended activities for enhancing creativity
- Lack of local resources like library, expert sessions, etc.
- Insufficient number of activities to promote values and attitudes in appropriate contexts.

Features of Social Science Teacher Text

The teachers are asked to mark their responses regarding different features of the Social Science teacher text as "Yes" or "No". The responses obtained were tabulated and analyzed. The result showing the percent of teachers agreed or disagreed to different features of Social Science teacher text are given in Table 4.12.

Table 4.12
Features of Social Science Teacher Text

Statements	Responses in Percentage	
	Yes	No
1. Text book and the teacher text are complementary to each other	95.42	4.58
2. Hints given are helpful for transacting content	94.12	5.88
3. Helpful in preparing TM	96.73	3.27
4. Specific instructions are given for CE and TE	93.46	6.54
5. Additional information for the transaction of the lessons are given	79.08	20.92
6. Suitable tools for evaluation are given	95.42	4.58
7. Reference books and different web sites given in the teacher text are helpful for the transaction of lessons	90.85	9.15
8. Periods allotted for each unit are sufficient for its transaction	51.03	48.37
9. Clarifies right-based education as envisaged by RTE Act	98.04	1.96
10. Helps the teacher in attaining clarity in the general approach of the curriculum	99.35	0.65
11. Provides clarity in professional ethics to be practiced by teachers	98.69	1.31

Table 4.12 revealed that, among the different aspects of the teacher text a great majority of teachers (90% and above) in Social Science reported that the Text book and the teacher text are complementary to each other, hints given in the teacher text are suitable for transacting lessons, teacher text helps in preparing TM, Instructions are given in teacher text for CE and TE, suitable tools for evaluation are provided in it, reference books and different web sites given in the teacher text are helpful for the transaction of lessons, it gives clear idea about the Right based education envisaged by RTE act, helps the teacher in attaining clarity in the general approach of the curriculum, and it provides clarity in professional ethics to be practiced by the teachers.

According to majority of teachers (70-89%) in teacher text additional information is provided for the suitable transaction of the lesson and about half (51.03%) of teachers opined that periods allotted for each unit are sufficient for its transaction.

It is noteworthy that 48.37% of teachers reported that the division of periods for each units is not suitable for its transaction and 20% of teachers reported that the additional information for the transaction of the lessons are not given.

From the results it can be inferred that, even though majority of teachers supports the Social Science teacher text in many aspects, nearly half of teachers reported that the division of periods given in teacher text is not suitable for its transaction. Similarly 20% of teachers reported that the additional information for the transaction of the lessons are not given.

The teachers, who are not happy with the features of the teacher text, reported the following difficulties they experienced

- Excessive number of activities
- Textbook related hints are not clear
- Lack of explanation for certain areas in the TB.
- Lack of reference books suggested
- Lack of facility for visiting sites,
- Lack of proper instructions for CE related to each unit
- Lack of additional resources
- Lack of sample teaching manuals for various units
- Lack of instructions for the preparation a TM.
- Lack of clarification of hard spots
- Appropriate evaluation tools are not incorporated in TT.

Facilities in the school

The teachers are asked to mark their responses regarding facilities in the schools as "Yes" or "No". The responses obtained were tabulated and analyzed. The result showing the per cent of responses teachers agreed or disagreed to different features of teacher text are given in Table 4.13.

Table 4.13
Facilities in the school

Facilities	Responses in Percentage
Science lab	87.58
ICT	88.24
Science club	94.12
Science corner	53.59
Reading corner	84.31
Maths lab	71.24
Display board	77.12
Maths club	93.46
Maths corner	53.59
Social science lab	75.82
Language lab	86.27
Social science club	98.69
Social science corner	56.21

It is revealed from the table 4.13 that a great majority(98.69%) of teachers reported that Social Science club is present in almost all the schools. It is also found that majority of the teachers reported (70% -94%) that the facilities such as Maths club, ICT, Science lab, Science club, Social science club, Reading corner, Language lab, Display board and Maths lab and Maths corner are available in schools. It is also found that 64% to 56% of teachers opined that Science corner ,Social science lab are available in schools while only 55% of teachers reported the facility of social science corner and Social science corner.

From this it can be inferred that all most all the facilities are present in majority of schools for effective teaching and learning.

Provisions of instructional facilities available in text book and teacher text

Teachers are asked to report the provisions to utilize facilities such as lab, library, ICT, Display board, Magazines, Club and corner. The result obtained are explained under three heading

- 1) Emphasis of Facilities in the content of the lesson
- 2) Necessary instructions to utilize facilities are given in TT and
- 3) Facilities can be utilized in leaning activities

Emphasis of Facilities in the content of the lesson

The teachers are asked to mark their responses regarding the Emphasis of Facilities given in the content of the lesson as 'To a great extent " , "To some extent " or "Not at All'. The responses obtained from 500 Social Science teachers were tabulated and analyzed. The result showing the percent of teachers for the different responses for the emphasis given in the content of the lesson are given in Table4.14

Table 4.14

Emphasis of facilities given in the content of the lesson in TB

Facilities	Great extent	Some extent	Not at all
Lab	42.48	47.06	10.46
Library	50.98	43.14	5.88
ICT	50.98	48.14	0.88
Display board	52.94	43.33	3.73
Magazines	50.98	39.22	9.8
Club	66.67	26.80	6.53
Corner	46.60	49.22	4.18

Table4.14 revealed that more than half of teachers (50.98% and above) reported that the content in the Social Science text book has given emphasis to great extent level to utilize facilities such as library, ICT, Display board, magazines and club while 47.06% and 49.22% of teachers opined that content in the social science text book has given emphasis to 'some extent' to lab and corner. It is notable that nearly 10% of teachers reported that the content of the lesson is not at all has given emphasis to utilize magazines.

Inference: Though more than half of teachers (50.98% and above) reported that the content in the Social Science text book has given emphasis to great extent level, nearly half of the teachers reported there are no emphasis given to utilize lab and corner in the content of the lesson .

Response of Teachers regarding necessary instructions to utilize facilities in TT

The teachers are asked to mark their responses regarding the necessary instructions to utilize facilities in TT as 'To a great extent " , "To some extent " or "Not at All'. The responses obtained from 500 Social Science teachers were tabulated and analyzed. The

result showing the percent of teachers for the different responses for the necessary instructions to utilize facilities in TT are given in Table

Table 4.15
Necessary instructions to utilize facilities

Facilities	Great extent	Some extent	Not at all
Lab	52.29	41.37	6.34
Library	54.90	42.03	3.07
ICT	56.86	40.07	3.07
Display board	42.48	45.29	12.23
Magazines	48.37	42.68	8.95
Club	47.71	45.95	34
Corner	46.60	45.29	8.11

Table4.15 revealed that more than half of teachers reported that necessary instruction are provided in T.T. to a great extent to utilize the facilities in schools such as lab, library and I.C.T. While 42.68% to 45.95% of teachers opined as 'some extent' for all the facilities mentioned.

It is notable that nearly 12.23 % of teachers reported that necessary instructions are not at all provided in TT to utilize display board .

Inference: Though more than 50% teachers (52.29% and above) reported that necessary instructions are provided in TT to a great extent to utilize facilities such as Lab. Library and ICT nearly 12.23% of the teachers reported that instructions are not all provided in the TT to utilize display board.

Response of Teachers regarding the utilisation of the facilities in learning activities

The teachers are asked to mark their responses regarding the utilisation of the facilities in learning activities as "To a great extent " , "To some extent " or "Not at All". The responses obtained from 500 Social Science teachers were tabulated and analyzed. The result showing the percent of teachers for the different responses for the utilisation of the facilities in learning activities are given in Table4.16

Table 4.16**Utilisation of facilities in learning activities**

Facilities	Great extent	Some extent	Not at all
Lab	46.41	46.60	7.64
Library	43.14	55.10	3.72
ICT	46.41	49.87	5.03
Display board	49.44	47.25	5.92
Magazines	50.33	47.25	3.07
Club	51.63	47.91	0.46
Corner	43.99	49.87	6.14

Table 4.16 revealed that more than 50% of teachers reported that only Magazines (50.33%) and clubs(51.63%) can be utilized for providing learning activities to great extent level. While nearly half (46% to 56%) of teachers opined that they can utilize all the other facilities for learning activities only to some extent.

From this it can be inferred that magazines and clubs can only be utilized for providing learning activities to a great extent. While nearly half of the teachers opined that they can utilize all the facilities only to some extent.

Response of Teachers regarding resources other than the textbook and the teacher text for ensuring learning outcomes

The teachers are asked to mark their responses regarding resources other than the textbook and the teacher text for ensuring learning by putting tick marks. The responses obtained from 500 Social Science teachers were tabulated and analyzed. The result showing the percent of teachers responses on resources other than the textbook and the teacher text for ensuring learning outcomes are given in Table 4.17

Table 4.17**Resources other than the text book and the teacher text for ensuring learning outcomes**

Materials	Percentage
Reading materials prepared by the teacher	96.08
Local resources	81.70
Resource CD (video, audio)	88.89
Pictures	97.39
Tables	90.85
Diagrams	67.32
Reports	79.74
Worksheets	94.12
Materials given by local government and other agencies	68.63
Others (specify)	14.38

From the table 4.17 it is found that a great majority of teachers (90% and above) reported that they use reading materials prepared by teachers, pictures, tables and work sheet for ensuring learning out comes. Majority of teachers (68%-89%) reported that they are using local resources, resource CD, Diagrams, reports, and materials given by local government and other agencies for ensuring learning outcomes.

From the analysis it can be inferred that a number of materials other than TT and TB are used by majority of teachers for ensuring learning outcomes.

Responses of teachers on the adaptation for the CWSN

Social Science Teachers were asked to respond which of the following like TB,TT resource teachers etc. help them to adapt for CWSN. The responses of 500 teachers were collected and tabulated and presented in Table 4.18.

Table 4.18
Adaptation for CWSN students

Materials	Percentage
a. Text book	60.13
b. Teacher text	43.14
c. Infrastructure	52.94
d. Resource teacher	66.01

It is found from table 4.18 that majority of teachers reported that resource teachers (66.01%) and text book(60.13%) helps them in the adaptation for the CWSN. Infra structure and teacher text only help for 52.94% and 43.14% of teachers respectively in this regard.

From this it can be inferred that resource teachers and text book mainly provide help in the adaptation of CWSN. Infrastructure and Teacher text are not so helpful in this regard.

Teaching learning resources in the area of art-sports-health-work experience

Table 4.19

Teaching learning resources in the area of arts

Statements	Response in Percentage		
	Great extent	Some extent	Not at all
• Suitable situations for transaction are given in the text book	43.14	54.90	1.96
• Instructions there to frame necessary resources in the TT of different subjects	41.43	58.1	0.47
• The school is well equipped to carry out these activities	20.95	62.71	16.34
• Able to make available local resources in these areas	26.74	60.84	12.42
• Able to make use of teacher text for these areas	45.29	53.4	1.31
• Able to make use of activity books	48.34	51.01	0.65

Based on the table 4.19 it is found that 43.14% of teachers opined that in the Social Science text book there are slots for effective transaction of area related to art to a great extent dimension while 54.90% teachers opined to some extent level. About 39.87% of teachers reported that instructions for framing necessary resources for art education are there in TT to a great extent level and 56.21% teachers to some extent level. Only 18.30% teachers opined that suitable materials related to art are available in the school to great extent while 60.78% reported that resources are available to some extent level. 23.53% of teachers reported that resources are available in their schools to a great extent level while 57.52% reported it to some extent level. About 41.83% of teachers reported that they make use of TT for the area to a great extent level and 50.98% to some extent level. About 45.10% of teachers reported that they make use of activity book to a great extent level and 47.71% teachers opined to some extent level.

Table 4.20**Teaching learning resources in the area of Sports and Health Education**

Statements	Sports – health		
	Great extent	Some extent	Not at all
• Suitable situations for transaction are given in the text book	40.3	56.43	3.27
• Instructions are there to arrange necessary resources in the TT of different subjects	39.59	57.8	2.61
• The school is well equipped to carry out these activities	27.43	66.69	5.88
• Able to make available local resources in these areas	28.78	62.72	8.50
• Able to make use of teacher text for these areas	42.49	55.38	2.13
• Able to make use of activity books	48.75	49.5	1.756

From the table 4.20 it is found that 35.95% of teachers opined that in the Social Science text book there are slots for effective transaction of area related to Sports and health to a great extent dimension while 51.63% teachers opined to some extent level. About 32.03% of teachers reported that instructions for arranging necessary resources for Sports and Health are there in TT to a great extent level and 52.29% teachers to some extent level. 22.22% teachers opined that suitable materials related to Sports and Health are available in the school to great extent while 57.62% reported that resources are available to some extent level. Very few (8.50%) reported that local resources are not at all available in their schools while 54.90% reported it to some extent level. About 33.99% of teachers reported that they make use of TT for the area to a great extent level and 49.02% to some extent level. About 40.52% of teachers reported that they make use of activity book to a great extent level and 41.83% teachers opined to some extent level.

Table 4.21**Teaching learning resources in the area of Work Experience**

Statements	Work experience		
	Great extent	Some extent	Not at all
• Suitable situations for transaction are given in the text book	40.95	58.4	0.65
• Instructions there to frame necessary resources in the TT of different subjects	43.09	55.6	1.31
• The school is well equipped to carry out these activities	29.22	60.32	10.46
• Able to make available local resources in these areas	30.22	59.32	10.46
• Able to make use of teacher text for these areas	38.42	58.97	2.61
• Able to make use of activity books	43.25	49.14	7.61

It is found from table 4.21 that 35.95% of teachers opined that in the Social Science text book there are slots for effective transaction of area related to work experience to a great extent dimension while 53.59% teachers opined to some extent level. About 34.64% of teachers reported that instructions for framing necessary resources for work experience are there in TT to a great extent level and 49.02% teachers to some extent level. 22.22% teachers opined that suitable materials related to work experience are available in the school to great extent while 50.33% reported that resources are available to some extent level. Very few (10.46%) reported that local resources are not at all available in their schools while 51.63% reported it to some extent level. About 30.72% of teachers reported that they make use of TT for the area to a great extent level and 52.29% to some extent level. About 37.25% of teachers reported that they make use of activity book to a great extent level and 43.14% teachers opined to some extent level.

Details of the products of the learning activities**Table 4.22****Details of the products of the learning activities**

Question	Yes	No
Evaluation of products	96.73	3.27
Encourages learners outstanding products	96.08	3.92
Utilizing the possibility of reusing products	90.85	9.15
Conducts exhibition of learners products	7.19	2.81

Table 4.22 reveals that regarding the products of the learning activities a great majority of teachers (greater than 90%) reported that they evaluated the products, found and encourage the learner's outstanding products and utilized the possibility of re-using products .Only very few (7.19%) of teachers opined that they conducted exhibition of the products.

III.Learning process

The teachers were asked to mark their responses regarding the various learning processes that take place inside the classrooms. The responses of the Teachers, in this section, for the Quantitative items were recorded as Yes / No, and Always/Sometimes/Not at all. The Qualitative responses were noted and listed the responses were collected and analyzed. The results are given under the sub-headings :

Difficulty experienced while planning learning activities in the classrooms

The responses obtained from ... Social Science teachers were tabulated and analyzed. The result showing the percentage of teachers who responded is given in Table 4.23

Table 4.23

Difficulty experienced while planning learning activities

Statement	Responses in Percentage	
	Yes	No
Difficulty experienced while planning learning activities	60.78	39.22

It is seen from the table 4.23 that a majority of Social Science teachers (60.78%) of Std VII reported that they experienced difficulties while planning learning activities whereas 39.22% mentioned that they did not experience any difficulty.

From this, it can be inferred that *majority of the Social Science teachers of Std VII experienced difficulties while planning learning activities.*

Thrust areas where difficulty is experienced while planning learning activities

The teachers, who indicated that they experienced difficulties while planning the learning activities, were asked to indicate their responses regarding the thrust areas where difficulty is experienced while planning learning activities. The responses were analyzed and the results are given in Table 4.24.

Table 4.24

Thrust areas where difficulty is experienced while planning learning activities

Thrust area	Responses in Percentage
• Learning Outcomes	14.38
• Integrating arts, sports, health and work experience	49.02
• Life skills	16.34
• Utilizing learning resources	11.76
• Slots for ICT	33.99
• Community bound activities	18.95
• Values/attitudes	8.50
• Learning of the different levels of learners	59.48
• Continuous evaluation	18.30
• Areas to develop social commitment	17.65

The thrust areas where the Social Science Teachers of Std VII faced difficulties are ‘Learning of the different levels of learners (59.48%)’, ‘Integrating arts, sports, health and work experience (49.02%)’, ‘Slots for ICT (33.99%)’, ‘Community bound activities (18.95%)’, ‘Continuous evaluation (18.30%)’, ‘Areas to develop social commitment (17.65%)’, ‘Life Skills (16.34%)’, ‘Learning Outcomes (14.38%)’, ‘Utilizing learning resources (11.76%)’ and ‘Values/ Attitudes (8.50%)’.

Therefore it can be inferred that although the Social Science Teachers experienced difficulty in various thrust areas, *‘Learning of the different levels of learners’*, and *‘Integrating arts, sports, health and work experience’* are two thrust areas that posed difficulty to majority of Social Science Teachers who indicated that they experienced difficulties while planning the learning activities.

Analysis based on the remedial measures suggested by teachers to overcome difficulties experienced by them in various areas

The Teachers were asked to suggest remedial measures to overcome difficulties experienced by them in the various areas mentioned above. The suggestions given by them are:-

- a. *Integrating arts, sports, health and work experience:*
 - Appointment of expert teachers for arts, sports and health.

- Training should be given in arts, sports and work experience.
 - Arts, sports, health and work experience activities are to be improved further.
 - Lessons giving importance to arts, sports, health and work experience should be included in the text book otherwise give specific indicators in the text book corresponding to these areas.
- b. *Life skills:*
- Some teachers are of the view that life-oriented training should be imparted in order to achieve life skills.
- c. *Utilizing learning resources:*
- Required resources should be provided in the form of kits through resource centres.
 - Make the field trips more effective.
 - Instructional programme should be planned in such a way that it is suitable to learners of differing standards.
 - Effective learning materials and learning environment should be ensured.
 - Activities suitable for fixing reading and writing should be included in the UP level.
- d. *Slots for ICT:*
- Possibilities of ICT facilities should be explored globally.
 - ICT activities in schools should be improved further.
 - Teachers have to acquire more expertise in the field of IT.
 - Few teachers request for giving ICT training in the BRC level.
 - The Government should take initiative to start smart classes and enhance other ICT facilities such as computers and projectors.
 - The laptops and CDs are not adequate in number.
 - More CDs can be distributed in the cluster level meetings.
 - Separate text book should be provided for ICT.
- e. *Community bound activities:*
- Facilities for continuous activities should be included by celebrating the observation of special days.
 - Help of other agencies can be accepted in order to ensure society related activities.

f. *Values/attitudes:*

- Voluntariness and feeling of nationality are decreasing in students.
- More activities related to these areas should be included in the text book from the lower classes itself in order to inculcate these values.

g. *Learning of the different levels of learners:*

- Resource teachers have to be appointed and more periods have to be allotted to them in order to handle the differently abled.
- Due consideration has to be given to the learning of differently abled. The classes and learning materials provided should be suitable for them.
- Enough hints and activities giving importance to the learning of differently abled should be given in the test book and teacher text.
- More activities suitable for them have to be included.
- Models of modules related to the learning of differently abled should be provided.
- Due consideration should be given to these learners while setting the
- Excellent planning is required to tackle the problems of differently abled.
- The available facilities and learning materials are not suitable for these learners.
- Differently abled learners should be segregated from the general stream; simple and friendly activities should be planned and implemented for them.

h. *Continuous evaluation:*

- Due to lack of time the CE cannot be implemented properly.
- CE should be simplified and more clarity should be given.
- There is lack of specific evaluation indicators.
- The larger number of students is a limitation for the recording of CE.

i. *Areas to develop social commitment:*

- Collaborative learning should be implemented by incorporating the society

Ensuring the development of process skills in learners

The teachers are asked to mark their Responses regarding ensuring the development of process skills in learners through learning process. The responses were analyzed and the result showing the percentage of teachers who opined regarding the item is given in Table 4.25.

Table 4.25**Ensuring the development of process skills in learners**

Statement	Responses in Percentage		
	Always	Sometimes	Not at all
Ensure the development of process skills in learners through learning process	7.84	91.50	0.65

It is evident from the table 4.25 that great majority of Social Science teachers (91.50%) of Std VII reported that they sometimes ensured the development of Process skills in the learners through learning process, whereas only 7.84% could always ensue it in the class. 0.65% of Social Science Teachers responded that they were not at all able to ensure the development of Process skills in the learners through the learning process.

From this, it can be inferred that *although majority of Social Science teachers of Std VII (91.50%) sometimes ensured the development of Process skills in the learners through learning process, only 7.84% always ensued it in the class. Few teachers (0.65%) not at all ensured the development of process skills in the learners through the learning process.*

Planning and implementing learning activities to attain conceptual clarity through multi-sensory experiences

The teachers are asked to mark their Responses regarding planning and implementing learning activities to attain conceptual clarity through multi-sensory experiences. The responses obtained from the Social Science teachers were analyzed and the result is given in Table 4.26

Table 4.26**Planning and implementing learning activities**

Statement	Responses in Percentage	
	Yes	No
Plan and implement learning activities to attain conceptual clarity through multi-sensory experiences	86.27	13.73

It is seen from the table 4.26 that a great majority of Social Science teachers (86.27%) of Std VII reported that they planned and implemented learning activities to attain conceptual clarity through multi-sensory experiences, whereas 13.73% did not do so.

From this, it can be inferred *that Majority of Social Science Teachers of Std VII planned and implemented learning activities to attain conceptual clarity through multi-sensory experiences. However 13.73% of the Teachers did not do so.*

Appropriateness of the curriculum in enabling learners to apply the knowledge acquired through learning process in their daily life

The teachers are asked to mark their responses regarding appropriateness of the curriculum in enabling learners to apply the knowledge acquired through the learning process in their daily life. The responses obtained from the Social Science teachers were analyzed and the result showing the percentage of teachers who responded is given in Table 4.27

Table 4.27

Appropriateness of the curriculum in enabling learners to apply the knowledge acquired through learning process in their daily life

Statement	Responses in Percentage	
	Yes	No
Curriculum is appropriate for enabling learners to apply the knowledge acquired through learning process in their daily life	93.46	6.54

It is evident from the table 4.27 a great majority of Social Science teachers (93.46%) of Std VII reported that curriculum is appropriate for enabling learners to apply the knowledge acquired through learning process in their daily life, whereas 6.54% did not agree to the statement.

From this, it can be inferred *that although the curriculum is considered appropriate for enabling learners to apply the knowledge acquired through learning process in their daily life by majority of Social Science Teachers of Std VII, 6.54% of them considered otherwise.*

Responses of Social Science teachers regarding making use of the learning strategies appropriate to the content

The teachers are asked to mark their responses regarding making use of the learning strategies appropriate to the content. The responses obtained from the Social Science teachers were analyzed and the result is given in Table 4.28.

Table 4.28

Making use of the learning strategies appropriate to the content

Statement	Responses in Percentage	
	Yes	No
Make use of the learning strategies appropriate to the content	93.46	6.54

The table 4.28 shows that a great majority of Social Science teachers (93.46%) of Std VII reported that they made use of the learning strategies appropriate to the content, whereas 6.54% did not.

From this, it can be inferred that *majority of Social Science Teachers of Std VII made use of learning strategies appropriate to the content. However 6.54% of Social Science Teachers did not*

Difficulties experienced while making use of Learning strategies that are appropriate to the content

The teachers, who indicated that they experienced difficulties while making use of learning strategies that are appropriate to the content, were asked to indicate their responses regarding the strategies that pose difficulties to them. The responses were analyzed and the results are given in Table 4.29.

Table 4.29

Difficulties experienced while making use of Learning strategies

Strategies that pose difficulty	Responses in Percentage
Investigative learning	11.11
Method of concept acquisition	5.23
Inductive thinking	4.58
Meta cognition	5.88
Co-operative leaning	1.96
Collaborative learning	5.23
Critical thinking	7.84

The learning strategies that were found difficult by the Social Science Teachers of Std VII to use according to the content, in the descending order of difficulty were Investigative learning (11.11%), Critical thinking (7.84%), Meta cognition (5.88%), Method of concept acquisition (5.23%), Collaborative learning (5.23%), Inductive thinking (4.58%), and Co-operative leaning (1.96%).

For Social Science Teachers, the learning strategies - Investigative learning and Critical thinking were the most difficult learning strategies to use appropriate to the content.

Reasons for experiencing difficulty while making use of appropriate learning strategies

The teachers were asked to express their responses regarding the reasons for experiencing difficulty while making use of appropriate learning strategies. The responses were analyzed and the results are given in Table 4.30

Table 4.30

Reasons for experiencing difficulty while making use of appropriate learning strategies

Reason	Responses in Percentage
a. Lack of time	79.74
b. Practical difficulty	37.91
c. Lack of facilities/materials	60.13
d. Lack of training	11.76

The reasons that were attributed by the Social Science Teachers for experiencing difficulty while making use of appropriate learning strategies as evident from the table, were Lack of time (79.74%), Lack of facilities/materials (60.13%), Practical difficulty (37.91%) and Lack of Training (11.76%).

Therefore it can be inferred that '*Lack of time*' and '*Lack of facilities/materials*' were the major reasons that were mentioned by the Social Science Teachers of Std VII who indicated that they faced difficulty while making use of appropriate learning strategies.

Analysis regarding the reasons for experiencing difficulties using appropriate strategies

Teachers also reported the following reasons for experiencing difficulty in utilizing appropriate learning strategies:

- Heavy syllabus which cannot be completed in stipulated time
- All competitions of the locality are conducted in the school which creates difficulty
- Lack of onsite support
- Excessive festivals
- Lack of subject-wise training
- Difference in the learning standards of the learners

Planning and Implementing learning activities to overcome the constraints of slow learners

The teachers are asked to mark their responses regarding planning and implementing learning activities to overcome the constraints of slow learners. The responses were analyzed and the result is given in Table 4.31.

Table 4.31

Planning and Implementing learning activities to overcome the constraints of slow learners

Statement	Responses in Percentage	
	Yes	No
Plan and Implement learning activities to overcome the constraints of slow learners	59.48	40.52

As seen from the table 4.31 that more than half of Social Science Teachers of Std VII (59.48%) planned and implemented learning activities to overcome the constraints of slow learners, whereas 40.52% could not.

Hence it can be inferred that *although majority of Social Science Teachers of Std VII planned and implemented learning activities to overcome the constraints of slow learners, two-fifths of teachers did not.*

Reasons for experiencing difficulty while planning and implementing learning activities to overcome the constraints of slow learners

The teachers, who indicated that they experienced difficulties while planning and implementing learning activities to overcome the constraints of slow learners, were asked to indicate their responses regarding the difficulties they experienced. The responses were

analyzed and the results showing the percentage of teachers, who marked the various difficulties, are given in Table 4.32.

Table 4.32

Reasons for experiencing difficulty while planning and implementing learning activities to overcome the constraints of slow learners

Reason for Difficulties	Responses in Percentage
To plan and implement the activities for different levels of learners	26.14
Remedial Teaching	9.15
Lack of specially prepared learning materials	28.76
Lack of time	38.56

The reasons reported by the Social Science Teachers of Std VII for difficulties in planning and implementing learning activities to overcome the constraints of slow learners were Lack of time (38.56%), Lack of specially prepared learning materials (28.76%), ‘difficulties in planning and implementing activities for different levels of learners (26.14%) and Difficulties in remedial teaching (9.15%).

Therefore it can be inferred that *‘Lack of time’ and ‘Lack of specially prepared learning materials’ were the reasons that were mentioned by more than quarter of the Social Science Teachers of Std VII who indicated that they faced difficulty while planning and implementing learning activities to overcome the constraints of slow learners.*

Other difficulties in planning activities to overcome the limitations of slow learners are Overcrowded classrooms, Large quantity of content, Lack of time, Lack or number of periods, Lack of interest of learners, Excessive learning outcomes, Lack of subject-wise training, Lack of specially prepared learning equipment, boredom of students, and lack of reading abilities of students.

Ensuring attainment of learning outcomes in different levels of learners

The teachers are asked to mark their responses regarding ensuring attainment of learning outcomes in different levels of learners. The responses obtained from the Social Science teachers were analyzed and the result s is given in Table 4.33.

Table 4.33

Ensuring attainment of learning outcomes in different levels of learners

Statement	Responses in Percentage	
	Yes	No
Ensure attainment of learning outcomes in different levels of learners	37.25	62.77

As evident from the Table 4.33 that 62.77% of the Social Science Teachers of Std VII did not ensure the attainment of learning outcomes in different levels of learners, whereas only 37.25% did so.

Hence it can be inferred that *Majority of the Social Science Teachers of Std VII did not ensure the attainment of learning outcomes in different levels of learners.*

Analysis of responses regarding difficulties in ensuring Learning outcomes satisfactorily in different levels of learners

Teachers in Social Science also reported the following difficulties in ensuring learning outcomes satisfactorily in different levels of learners and they are:-

- Lack of time and lack of training for conducting the learning activities effectively.
- Limitations in handling the differently abled learners.
- Lack of support from the resource teachers.
- There is lack of suitable learning equipment for the differently abled learners.
- Infrastructure is insufficient.
- Home environment of the learners is not conducive.
- Their learning standards are too poor to acquire to stipulated learning outcomes.
- Difficulty to focus on these learners while giving works to other learners.
- The activities are not suitable for the differently abled learners and it is very difficult to develop new activities.
- More suitable activities have to be included in the text book and the teacher text.
- The lessons have to be completed in each term itself.
- The syllabus is also very heavy.
- Some teachers feel difficulty due to lack of interest of the learners to undertake diversified activities.
- No suitable activities are included in the text book for these learners and it is very difficult to conduct the given activities for them.

- Lack of specialist teachers for handling these learners is another issue.
- The classrooms are over-crowded. In a classroom having 40 students the learning outcomes of the differently abled learners could not be ensured effectively.
- Non co-operation of parents.
- Few teachers feel difficulty to communicate with the deaf and dumb students.
- The instantaneous change in the behaviour of the learners is another problem.
- Their abilities in understanding and the reading & writing skills are different. Many learners couldn't express the outcomes by writing.
- The continuous absenteeism of these learners is also a serious issue.
- Over duty of teachers.
- Lack of subject-wise training and specially prepared learning equipment.
- Difficulty to provide learning activities nurturing life skills in the differently abled learners.

Implementation of learning activities to enrich the abilities of gifted learners

The teachers are asked to mark their responses regarding implementation of learning activities to enrich the abilities of gifted learners. The responses obtained from the Social Science teachers were analyzed and the result is given in Table 4.34.

Table 4.34

Implementation of learning activities to enrich the abilities of gifted learners

Statement	Responses in Percentage	
	Yes	No
Implement learning activities to enrich the abilities of gifted learners	84.97	15.03

A great majority of Social Science Teachers of Std VII (84.97%) implemented learning activities to enrich the abilities of gifted learners, whereas 15.03% could not.

Therefore it can be inferred that *although* majority of *Social Science Teachers implemented learning activities to enrich the abilities of gifted learners, 15.03% of them did not do so.*

Reasons for experiencing difficulties in the implementation of learning activities to enrich the abilities of gifted learners

The teachers, who indicated that they experienced difficulties in the implementation of learning activities to enrich the abilities of gifted learners, were asked to indicate their responses regarding the difficulties they had. The responses were analyzed and the results are given in Table 4.35

Table 4.35
Reasons for Difficulties in the Implementation of learning activities
to enrich the abilities of gifted learners

Reason for Difficulties	Responses in Percentage
Difficulty in planning challenging learning activities	5.23
Lack of suitable learning resources	7.19
Lack of time	8.50
Lack of training	3.27

The reasons that were attributed by the Social Science Teachers of Std VII for not being able to implement learning activities to enrich the abilities of gifted learners effectively were Lack of time (8.50%), Lack of suitable learning resources (7.19%), 'Difficulty in planning challenging learning activities (5.23%) and Lack of training (3.27%).

Therefore it can be inferred that '*Lack of time*' and '*Lack of suitable learning resources*' were the major reasons that were mentioned by Social Science Teachers of Std VII who indicated that they faced difficulties in the Implementation of learning activities to enrich the abilities of gifted learners

Analysis of responses based on remedial measures for overcoming difficulties in enriching the abilities of gifted learners

Remedial measures suggested by Social Science Teachers for tackling the difficulties in enriching the abilities of gifted learners are listed below:-

- Encourage the skills of the talented by giving training
- Provide more time
- Provide more periods

- Provide appropriate learning materials
- Provide specially prepared learning equipment
- Ensure the availability of books for extra reading
- Provide more worksheets

Applying suitable learning strategies to ensure maximum participation of all learners

The teachers were asked to mark their responses regarding applying suitable learning strategies to ensure maximum participation of all learners. The responses obtained from ... Social Science teachers analyzed and the result showing the percentage of teachers who opined regarding the item is given in Table 4.36.

Table 4.36

Application of suitable learning strategies to ensure maximum participation of all learners

Statement	Responses in Percentage		
	Always	Sometimes	Not at all
Apply suitable learning strategies to ensure maximum participation of all learners	22.22	75.82	1.96

The table 4.36 suggested that majority of Social Science Teachers of Std VII (75.82%) sometimes applied suitable learning strategies to ensure the participation of all learners whereas 22.22% did not apply them. 1.96% were not at all able to apply the learning strategies which ensured the participation of all learners.

Therefore it can be inferred that *although a majority of Social Science Teachers of Std VII sometimes ensured the maximum participation of all learners, only 22.22% always ensured full learner participation.*

Transaction of the content in a learner friendly manner

The teachers were asked to mark their responses regarding transaction of the content in a learner friendly manner. The result showing the percentage of teachers who opined regarding the item is given in Table 4.37.

Table 4.37

Transaction of the content in a learner friendly manner

Statement	Responses in Percentage		
	Always	Sometimes	Not at all
Transact the content in a learner friendly manner	55.56	43.79	0.65

More than half of the Social Science Teachers of Std VII (55.56%) always transacted the content in a learner friendly manner, whereas 43.79% sometimes transacted the content in a learner centered way. 0.65% of the teachers were not learner friendly at all.

Hence it can be inferred that *although more than half of Social Science Teachers of Std VII always transacted the content in a learner friendly manner, 43.79% were sometimes learner friendly in content transaction. It is startling to note that that few Social Science Teachers were not learner friendly at all (0.65%) in content transaction.*

IV. Evaluation

Clarity in continuous Evaluation

The responses from teachers based on clarity in Continuous Evaluation (CE) were collected and analyzed. The details are given in table.4.38

Table 4.38

Clarity in Continuous Evaluation Strategies

Aspect	Responses in Percentage	
	Yes	No
Clarity in continuous assessment	93.46	6.54

From the table 4.38 it is found that majority of teachers in Social Science (93.46%) reported that they got a clear idea about continuous Evaluation. At the same time 6.54% of teachers responded negatively.

Even though majority of teachers got a clear idea about continuous Evaluation, about 6.54% teachers did not get the clarity.

Areas which need clarity for teachers

The data based on areas which need clarity were collected from teachers who didn't get a clear idea about CE (10.74%) and were subjected to analysis. The details are given in table.4.39

Table 4.39

Areas which need clarity

Area	Responses in Percentage
Assessment of Learning Process	3.27
Portfolio Assessment	3.27
Unit Assessment	1.31
Recording	1.96

Table-4.39 reveals that very few teachers in Social science (below 5%) have reported that they need clarity in process evaluation..

However majority of teachers got a clear idea about continuous assessment, simultaneously a significant number of teachers need clarity in Continuous Evaluation.

Area in which clear understanding of continuous evaluation is required

Process evaluation-

- Reduce number of students
- Better indicators
- Proper training
- Special training for bright ones
- Hand book for CE
- Explanation of activities

Port folio

- Give indicators for which portion of the lesson is to be included
- Including activities for differently abled students
- Simplifying activities related to lesson

Unit evaluation

- Reduce lessons
- Give separate questionnaire in hand book I
- Prizes for better score
- In quiz mode

Grading

- Peer evaluation, avoid grade

Recording

- Prepare a better tabulation model-State wise
- More time needed

Continuous Evaluation to ensure learning and to provide adequate support to learners

The data based on ability to carry out CE to ensure learning and to provide adequate support to learners were collected from teachers and were subjected to analysis. The details are given in table 4.40

Table 4.40

Continuous Evaluation to ensure learning and to provide adequate support to learners

Aspect	Responses in Percentage	
	Yes	No
Ability to ensure learning and to provide support to learners though CE	68.63	40.51

From the table 4.40 it is found that teachers in Social Science (68.63%) reported that they are able to ensure learning and to give support to the learners while carrying out CE. At the same time 40.51% teachers reported that they couldn't.

From the analysis it is clear that about 40% of teachers are not able to ensure learning and to provide support to learners though CE

Practical difficulties encountered while carrying out Continuous Evaluation to ensure learning and to provide adequate support to learners

The data based on ability to carry out CE to ensure learning and to provide adequate support to learners were collected from teachers who are faced practical difficulties and were subjected to analysis. The details are given in table.4.41

Table 4.41

Practical difficulties encountered while carrying out Continuous Evaluation

Area	Responses in Percentage
Lack of awareness	2.61
Lack of time	19.61
Complexity of learning process	15.03
Overcrowded class rooms	16.99

Analysis of table 4.41 revealed that 19.61% teachers reported that Lack of time in CE was their major practical difficulty to ensure learning and providing support to learners while carrying out CE. The other difficulties reported are; Overcrowded class rooms, Complexity of learning process and Lack of awareness.

The above mentioned findings highlight the need for making necessary arrangements to overcome practical difficulties likely to be encountered while carrying out CE

Analysis of responses of Teachers base on Practical Difficulty in continuous evaluation

- Recording and subsequent planning
- Marking followed by planning

Simultaneous taking place of Learning process and Evaluation

The data based on responses of teachers regarding the simultaneous taking place of learning process and evaluation were collected and analyzed. The details are given in table.4.42

Table 4.42

Carrying out the Learning process and Evaluation simultaneously

Aspects	Responses in Percentage	
	Yes	No
Learning process and evaluation taking place simultaneously	85.62	14.38

From the table4.42 it is found that that majority of teachers in Social Science (85.62%) reported that learning process and the continuous evaluation process takes place simultaneously while 14.38% of teachers reported that that learning process and the continuous evaluation process is not taking place simultaneously.

It is clear that even though majority of teachers are able to carry out learning process and evaluation simultaneously a significant number of teachers are not able to undertake the task successfully.

Practical difficulties encountered to carry out learning process and evaluation simultaneously

The data based on responses of teachers regarding the practical difficulties encountered for simultaneous taking place of learning process and evaluation were collected and analyzed. The details are given in table.4.43

Table 4.43

Practical difficulties in learning process and evaluation simultaneously

Practical difficulties	Responses in Percentage
Lack of proper planning	2.61
Lack of awareness about suitable strategies	1.31
To give more emphasis to learning process than evaluation	5.23

Table 4.43 shows that 5.23% of teachers responded that the difficulty to carry out learning process and evaluation simultaneously is due To give more emphasis to learning process than evaluation. The other difficulties reported are: Lack of proper planning, lack of awareness about suitable strategies and giving more emphasis to learning process than evaluation.

Practical difficulties encountered in learning process and evaluation

- Lack of time
- Excess number of students
- Delay in getting required documents from students

Specificity of indicators related to different areas of evaluation

The data based on responses of teachers regarding specificity of indicators related to different areas of evaluation were collected and analyzed. The details are given in table 4.44

Table 4.44

Specificity of Indicators related to different areas of evaluation

Aspects	Responses in Percentage	
	Yes	No
Specificity of indicators related to different areas of evaluation	96.08	3.92

From the table 4.44 it is found that 96.08% teachers in Social Science reported that the indicators given to the areas for evaluation are specific while 3.92% teachers reported as not specific.

It is significant to note that 3.92% of teachers reported that the indicators related to different areas of evaluation are not specific.

Responses of teachers regarding the Area which needs clarity for indicators

The data based on areas which need clarity for indicators were collected from teachers who didn't get a clear idea about it (39.97%) and were subjected to analysis. The details are given in table.4.45

Table 4.45

Area which needs clarity for indicators

Area	Responses in Percentage
Assessment of Learning Process	3.92
Portfolio Assessment	1.31
Unit Assessment	0.65

From the table 4.45 it is found that a very few teachers in Social Science(3.92%) reported that they need clarity in Assessment of Learning Process. A very few teachers need clarity of indicators in Assessment of Portfolio Assessment and Unit Assessment .

Problems faced by teachers during the assessment of learning process

The data based on responses of teachers regarding problems faced by teachers during the assessment of learning process were collected and analyzed. The details are given in table 4.46

Table 4.46

Problems faced by teachers during the assessment of learning process

Area	Responses in Percentage
Overcrowded classroom	38.56
Lack of suitable criteria	18.95
Lack of time	79.74
Lack of awareness of teachers	1.96
Lack of planning	1.31

The table 4.46 revealed that 79.74% of teachers in Social Science reported that the main problem faced by them during assessment of learning process is Lack of time and 38.56% teachers reported Overcrowded classroom as their main problem. While a few percentage of teachers (below 20%) faced problems due to Lack of suitable criteria, Lack of awareness to the teachers and Lack of planning.

Provision for self-evaluation and peer evaluation

The data based on responses of teachers regarding providing opportunities for Self-evaluation and Peer evaluation were collected and analyzed. The details are given in table 4.47

Table 4.47

Provision for Self-evaluation and Peer evaluation

Aspects	Responses in Percentage	
	Yes	No
Self -Evaluation	96.08	3.92
Peer Evaluation	89.54	10.46

From the table 4.47 it is clear that a great majority teachers (96.08%) reported that they provide opportunities for self-evaluation (93.04%) and a majority of teachers (87.97%) for peer evaluation. But it is significant to note that 3.92% of teachers are not all providing any opportunity for peer evaluation and 10.46% for self-evaluation.

Preparation of indicators for Evaluation

The data based on responses of teachers regarding preparation of indicators for evaluation were collected and analyzed. The details are given in table 4.48

Table 4.48

Preparation of indicators for Evaluation

Area	Responses in Percentage
Prepared by Teacher	59.48
Prepared by learners themselves	13.73
Derives from classroom discussion	71.90

The table 4.48 revealed that about 71.90 % of teachers in Social science reported that preparation of indicators for assessment by classroom discussion . 59.48% of teachers opined that they themselves prepare indicators for assessment, whereas a few percentage of teachers (below 14%) reported that Students themselves prepare indicators for assessment.

About 30% of teachers are not preparing indicators for evaluation. It is also significant to note that majority of teachers are not concerned with the preparation of indicators by learners.

How evaluation tools are prepared

- Using tools used in TT and TB

Provision of ample opportunity to learners to present their products related to self-assessment and peer assessment

The data based on responses of teachers regarding Provision of ample opportunity to learners to present their products related to self-assessment and peer assessment. The details are given in table 4.49

Table 4.49

Opportunity to learners to present their products related to self- evaluation

Aspects	Responses in Percentage	
	Yes	No
Whether you provide ample to present their products related to self-assessment and peer assessment	95.42	4.58

From the table 4.49 it is found that majority of teachers in Social science (95.42%) reported that they provide ample opportunity to learners to present their products related to self-assessment and peer assessment

It is significant to note that even though majority of teachers are providing of opportunities to learn to present their product related to self-evaluation and peer evaluation, a significant number of teachers are not providing at all.

Suitable changes in the classroom process considering the learners' assessment

The data based on responses of teachers regarding suitable changes in the classroom process considering the learners' assessment. The details are given in table 4.50

Table 4.50
Necessary Changes in the classroom process

Aspect	Responses in Percentage	
	Yes	No
Suitable changes in the classroom process considering the learners' assessment	86.27	13.73

From the table 4.50 it is found that majority of teachers in Social science (86.27%) reported that they make suitable changes in the classroom process considering the learners' assessment.

Changes incorporated for student evaluation

- Group activities(11)
- Conducting discussions
- More usage of ICT
- Simplifying activities
- Worksheet
- Rotating responsibilities
- Extra classes during holidays with the participation of voluntary organizations
- Extra consideration for backward students(1/2 hour extra time in FN and AN)Adaptation of learning activities
- Divided responsibilities
- Peer group tutoring
- Asking questions among themselves
- Simplifying information
- Debate
- Conolidation of discussions
- Making questions and its indicators by students
- Providing more activities for self -evaluation
- Self -evaluation

- Responsibilities are exchanged in each month
- Explaining history
- Grouping students and making leader based on skills and they lead the backward students
- Avoiding copying
- Special class Student initiated learning
- Seminar
- Overcoming limitations with the help of bright students
- Homework Organizing field trips
- Class test
- Repetition of activities
- Simple activities for backward students
- Peer group teaching
- Preparing questions and indicators
- Students themselves prepared questions for quiz
- As per student's suggestions extra activities provided after each lesson (eg. Skit, album, debate etc.)
- Exhibiting products and evaluation by students themselves
- Including questions of different levels in class test
- Grouping students of different levels (ability grouping)
- Formulating strategies for solving the problems of students belonging to different levels
- Extra classes
- Assigning leadership role for backward students
- More time for difficult areas
- Explaining history
- Exhibiting word web
- Giving scholarships to backward students
- Word puzzle
- Vacation classes
- Reducing speed
- Giving different activities

- Remedial teaching
- Quiz competition
- Class test
- Giving responsibilities to talented students
- Doing the same activities in two different ways(completing the table and word web)
- Conducting quiz related to celebration of days under the leadership of students
- Presenting and exchanging the answers of students
- Repetition of activities
- Providing activities according to aptitude and level of learners
- Provided library books and reference materials to students
- Provided interest generating activities
- Changes in group activities
- Self evaluation
- Stage form
- Lab and library form
- Round, semicircle and group work models used
- Home work
- Classroom activities
- Encouraging students for higher level evaluation
- Insisting students for complete involvement in group activities
- Picturizing events
- Equal sharing of responsibilities
- Reciprocal evaluation of groups
- Importance to individual activities
- Extra activities
- Distributing books

Tools / techniques while using in unit wise evaluation

The data based on responses of teachers regarding the use of Tools / techniques used for unit wise evaluation were collected and analyzed. The details are given in table.4.51

Table 4.51
Tools / techniques for evaluation

Area	Percentage
a. Quiz	90.20
b. Open book test	33.33
c. Class test	95.42

The table 4.51 above revealed that majority of teachers in Social science (above 90%) reported that they use Class test ,Quiz as their tools / techniques for unit wise evaluation. While below 33.33% of teachers in Social science s use Open book test and a very few percentage of teachers (below 6%) use Other tools as their tools / techniques for unit wise evaluation.

Techniques and strategies for unit evaluation

- Seminar
- Work sheet
- Project
- Assignments
- Debate
- Discussion
- Interview report
- Analyzing port folio
- Tabulation
- Questionnaire preparation and presentation
- CE
- Learning maps
- Survey
- Random questions
- Preparation of question bank
- Checklist
- Flow chart
- Diagram
- Preparation of short notes
- Oral test

- Essay writing
- Recording
- Creativity
- Album
- Stories/poems

Records considered for continuous evaluation

The data based on responses of teachers regarding the records they consider for CE. The details are given in table 4.52

Table 4.52

Records considered for continuous evaluation

Area	Percentage
a. Note book	91.50
b. Worksheet	86.27
c. Writings	87.58
d. Short notes	87.58
Project/seminar reports	73.86
Answer sheets of unit wise assessment	91.50

From the table 4.52 reveals that vast majority of teachers in Social science (about 86-95%) reported that they consider the records for continuous evaluation are Note book, Worksheet , Short notes, Project/seminar reports and Writings ,Whereas below 73.86% teachers in Social science reported that they consider the record for continuous evaluation and Answer sheets of unit wise assessment.

From the analysis it is inferred that teachers in Social Science are considering different records such as Notebook. Worksheet. Project/seminar report, answer scripts, short notes and creative writings /assignment for continuous evaluation. It is significant to note that about 50% of teachers are not considering creative writings and short stories,about 30% of teachers are not considering project and answer scripts for continuous evaluation.

Records considers continuous evaluation

- Preparation of map

- Album
- Collections
- Exhibiting score sheets
- Survey
- Report writing
- On the spot responses
- Participation in group activities
- Club activities
- Group activities
- Diagram
- Graphs
- Preparation of questionnaire
- Preparation of flowchart
- Ability in classroom activities
- Map reading
- Port folio
- Questions and drawing to differently abled students
- Discussions
- Class test
- Students interaction
- Quiz
- Involvement in science fairs

Feedback based on continuous evaluation

The data based on responses of teachers regarding the feedback based on continuous evaluation. The details are given in table 4.53

Table 4.53

Feedback based on continuous evaluation

Aspect	Responses in Percentage	
	Yes	No
For learners	99.35	0.65
For parents	81.05	18.95

From the table 4.53 revealed that a great majority of teachers in Social Science (99.35%) reported that they provide feedback based on continuous evaluation for learners while 81.05% teachers for parents. It is significant to note that 18.95% of teachers are not giving feedback to parents and very few teachers not to learn also.

Even though majority of teachers are giving feedback based on CE a significant number of teachers are not giving feedback on CE for parents and 4.43% of teachers not for learners too. But it is series to consider this since feedback to learners is very important in learning process.

Provision for remedial instruction based on feedback from Continuous Evaluation

The data based on responses of teachers regarding remedial teaching based on continuous evaluation. The details are given in table.4.54

Table 4.54
Remedial teaching based on continuous evaluation

Aspect	Responses in Percentage	
	Yes	No
Provision for remedial instruction based on feedback from Continuous Evaluation	91.50	8.5

Table 4.54 reveals that a great majority of teachers (91.50%) in Social Science reported that they are providing remedial instruction based on feedback from Continuous Evaluation, while 8.5% teachers are not providing remedial instruction.

It is significant to note that even though majority of teachers are providing remedial instruction based on feedback from Continuous Evaluation, significant percentage of teachers (15.82%) are not providing remedial instruction based on the feedback obtained from continuous evaluation for learners and parents.

Methods adopted for remedial instructions

The data based on responses of teachers regarding the Strategies chosen for remedial teaching. The details are given in table.4.55

Table 4.55

Methods/Strategies for remedial teaching

Area	Percentage
a. Changing the process	45.75
b. Giving support	79.74
c. Peer tutoring	47.71
d. follow-up activities	71.24

From the table 4.55 above it is found that teachers in Social science positively responded that they try to switch on to Giving support(79.74%) and Continuous activities (71.24%),whereas below 50%of teachers follows Peer tutoring (47.71%) and Changing the process (45.75%) .

Ways adopted for remedial teaching

- Group activities
- Special classes
- Remedial teaching
- Repeated reading and writing
- Using previous knowledge
- Adaptation activities
- Little teacher
- Use of learning aids

Practical difficulties in continuous evaluation

- Lack of time
- Abundance of other activities
- Excess number of students
- Reducing teacher pupil ratio
- Lack of materials

Accurate recording of continuous evaluation

The data based on responses of teachers regarding the Accurate recording of continuous evaluation were collected and analyzed. The details are given in table.4.56

Table 4.56

Accurate recording of continuous evaluation

Aspect	Responses in Percentage	
	Yes	No
Recording of continuous evaluation	77.78	22.22

From the table 4.56 it is found that 77.78% of teachers in Social Science reported that they are accurately recording the details of the continuous evaluation. While 22.22% reported that they are not recording the details of CE

Even though majority of teachers accurately record the details of continuous evaluation, about 22% teachers did not record accurately the details of continuous evaluation.

Different evaluation strategies for CWSN learners

The data based on responses of teachers regarding the Framing separate strategies of **evaluation** for CWSN learners were collected and analyzed. The details are given in table 4.57

Table 4.57

Framing Different evaluation Strategies for CWSN learners

Aspect	Responses in Percentage	
	Yes	No
Framing Different evaluation Strategies for CWSN learners	61.44	38.56

From the table 4.57 it is found that 61.44% of teachers in Social Science reported that they are framing separate strategies of evaluation for CWSN learners

From the analysis it is clear that about 62% of teachers are framing different strategies for CWSN learners. But a significant percentage of teachers are not framing different strategies for CWSN learners.

Special evaluation strategies adopted for CWSN

- Drawing pictures- picturisation
- Colouring
- Simple questions

- Constructive activities
- Class test
- Worksheet
- Questions and evaluation based on their level
- Activities, pictures and outline suitable for the level of learners
- Peer tutoring
- Adaptation
- Oral test
- Audio questions
- Providing simple activities
- Verbal expressions
- Specially prepared TLM activities
- Providing appropriate activities according to the level of students
- Involvement of CWSN teachers
- Dramatization
- Open book test
- Activities, pictures and outlines suitable for the level of teachers
- Class test
- Comparison
- Providing special classes
- Distinguish pictures
- More activities
- Preparing teaching aids
- Expert classroom
- Simple learning strategies
- Writing name of districts using alphabets
- Joining parts in maps
- Tutoring parents
- Informing parents
- CD questions
- Copy writing
- Singing

- Consider while giving grades
- Appropriate tests and questions
- Role play
- Pictures
- Silent act
- ICT
- Assigning leadership roles occasionally
- Jigsaw puzzle
- Map reading
- Worksheet
- Providing strategies
- One word answering
- Emphasising activities based on students interest
- Reducing the number of activities
- Simplifying evaluation indicators
- Special class
- Specially prepared questions given in advance and evaluated next day
- Class conducted by using modules
- Creative ability
- Oral test, picture analysis, identification
- Indicators formulated depending upon the activities and limitations of students
- Evaluating pictures
- Diary
- Sharing of experiences
- ICT, pictures
- Connecting parts of map
- Giving simple activities
- Solving activities according to the level of students
- Picture, play activities
- Giving simple questions
- Oral test
- Drawing

- Worksheet provided
- Dictation
- Peer tutoring
- Shapes and match the following
- Using instruments/teaching aids
- Did not insist accuracy in drawing
- Given simple activities for each unit
- Given separate questions
- Given attractive teaching aids
- Evaluation strategies used according to the mental level of students
- Evaluation based on special activities
- Evaluation of special skill
- Given appropriate activities
- Special help to them by brilliant students
- Special corner learning
- Special module
- Drawing and shading geometrical figures
- Include picturisation and developmental activities
- Class test
- Joint activities
- Play games
- Cutting of picture of stories and poems
- Special classes morning and evening
- Reading
- Copy writing
- Giving questions through pictures

Recording of responses Based on statements related to Term Evaluation

The data based on responses of teachers in Recording of responses based on Term evaluation were collected and analyzed. The details are given in table. 4.58

Table 4.58

Recording of responses Based on Term Evaluation

Statements	Great extent	Some extent
Clear awareness about TE	91.50	8.5
The tools adopted for Term Evaluation are adequate for evaluating learning outcomes.	82.35	17.65
Include variety questions which give emphasis to thinking skills	71.90	28.1

Table 4.58 revealed that majority of teachers (91.50%) reported that they have a clear awareness about TE. At the same time 82.35% of teachers reported that tools for TE is suitable to great extent for evaluating the learning outcomes while 71.90% opined that TE includes variety of questions which give emphasis to thinking skills to a great extent level.

Teachers facing Difficulties related to TE

The data based on responses of teachers regarding they face any difficulties regarding TE. The details are given in table 4.59

Table 4.59

Difficulties experienced in TE

Aspect	Responses in Percentage	
	Yes	No
Teachers face Difficulties related to TE	23.53	76.47

It is clear from the table 4.59 that the majority of teachers in Social Science (76.47%) face no difficulties regarding TE. About 23.53% of teachers reported that they face difficulties related to regarding TE.

Even though majority of teachers are not facing any difficulties related to TE, a significant number of teachers have difficulties related to TE.

Difficulties reported by teachers related to TE

The data based on responses of teachers regarding the difficulties related to TE were collected and analyzed. The details are given in table 4.60

Table 4.60

Difficulties experienced by teachers in Term Evaluation

Area	Percentage
a) Inadequate evaluation strategies	3.27
b) Difficulty in grading	9.15
c) Difficulty in recording	7.84

From the table 4.60 it is seen that 9.15% of teachers in Social Science reported that the difficulties they experienced related to term evaluation is due to difficulty in grading. The other difficulties reported are inadequate Difficulty in recording (7.84%) and evaluation strategies (3.27%)

From the analysis is found that few teachers reported that they experienced difficulties related to term evaluation. The difficulties are inadequate evaluation strategies, difficulty in grading and difficulty in recording.

.Difficulties related to CE

- Difficulty in conducting seminars
- Abundance of content
- Lack of necessary question papers inside the packet
- Open the question packet before 15 minute and check the questions

Conduct of evaluation related to art, sports and work experience

The data based on responses of teachers regarding Assessment related to art, sports and work experience are collected and analyzed . The details are given in table 4.61

Table. 4.61

Evaluation related to art, sports and work experience

Aspect	Responses in Percentage	
	Yes	No
Conduct of evaluation related to art, sports and work experience	62.09	37.91

It is clear from the table 4.61 that 62.09% teachers in Social Science conducted evaluation related to art, sports and work experience properly.

It is significant to note that about half of the teachers are not able to conduct evaluation related to arts, sports and work experience effectively.

Evaluation related to arts and sports activity learning- Suggestions for effective evaluation

- Appointing resourceful teachers
- Provide better training for teachers
- Provide sourcebook
- Provide infra structure
- Give training classes
- Need resourceful teachers
- Lack of time
- Special activities
- Arts and sports activities at panchayat level
- Training to improve subject understanding
- Provide suggestion for time bound arrangements
- Reducing the activities and confining to yearly evaluation only
- Provide clarity of ideas for teachers
- Lack of trained teachers
- Appointing talented teachers
- Annual evaluation without giving appropriate term and evaluation
- Appointing separate teachers for arts and sports
- Provide format for evaluating arts and sports activities
- Access the service of trained teachers
- Evaluation criteria and TE should be given together
- Include more activities in HBTB
- Give specific activities
- Need special courses
- Give cluster training
- Provide separate periods
- Make TT available
- Each child should get the service of physical education teachers
- Make suitable infrastructures
- Provide awareness regarding PT and evaluation

Evaluation and recordings conducted : Social and Emotional areas

The data based on responses of teachers regarding Evaluation and recordings conducted for Social and Emotional areas. The details are given in table 4.62

Table 4.62

Evaluation and recording carried out for Socio –Emotional Areas

Area	Percentage
Empathy	67.97
Intrapersonal skill	81.05
Problem solving capacity	69.93
Critical thinking	49.02
Self-awareness	73.20
Communicative skill	79.08
Coping with emotions	52.94
Decision making	81.05
Creative thinking	62.09
Coping with stress	46.41

The table 4.62 shows that 81.05% of teachers responded positively that they are evaluating and recording interpersonal skill and Decision making. However certain areas like coping with stress shows only 46.41%. The details of the result are presented in the order of magnitude. Intrapersonal skill and Decision making (81.05), Communicative skill (79.08), Self-awareness (73.20), Problem solving capacity (69.93), Empathy (67.97), Creative thinking (62.09), Coping with emotions (52.94), Coping with stress (46.41), and Critical thinking (49.02).

It is important to note that a significant number of teachers are not carrying out evaluation and recording of socio-emotional area like empathy, problem solving skill, creative thinking, critical thinking, and coping with stress under socio emotional areas. Even though majority of teachers are evaluating and recording socio-emotional areas like interpersonal skill, decision making, self-awareness and communication skill, a significant number of teachers are not yet carrying out evaluation and recording in these areas.

V. Subject specific details

Responses made by teachers regarding Social Science text book

Responses made by teachers with respect to Social science text book were collected and analyzed and the details are given in Table 4.63

Table 4.63

Percentage of Responses made by teachers regarding Social Science text book

Sl No	Statements	Responses in Percentage		
		Great extent	Some extent	Not at all
1.	The contents in the Text book enable the students to think and analyze critically about the social problems and act towards social welfare.	61.44	38.56	00
2.	The Text Book contains activities that are capable of developing values like civic sense, secularism, patriotism, respect towards national leaders, tolerance, co-operation, ability to respond and react in a situation.	84.31	15.69	00
3	There are activities suitable for developing a positive attitude towards protecting and maintaining our cultural heritage.	71.24	28.76	00
4.	There are activities that help students to realise how natural phenomena affects one's life.	73.20	26.80	00
5.	Activities that enable students to understand and act against the human interventions that bring about an adverse effect on Earth's ecology are included in the Text Book	83.01	16.99	00
6.	There are activities that help students to analyze historical events and to form a futuristic outlook.	68.63	31.37	00
7.	Activities that help students to realise the rights and duties of a citizen and act accordingly are included in the Text Book.	85.62	14.38	00
8.	There is sufficient content in the Text Book to create awareness in the students about production, distribution, consumption, distribution of wealth, etc.	72.90	28.10	00
9.	Different techniques/ strategies of learning suitable for knowledge construction are included in the activities (e.g. dialogues, interviews, seminars, projects, etc.).	82.35	17.65	00
10.	There are opportunities/ instructions to use secondary and tertiary sources apart from Text Books for Knowledge construction.	72.90	28.10	00

From the table 4.63 it is found that majority of teachers (85.62%) reported that activities that help students to realise the rights and duties of a citizen and act accordingly are included in the Text Book to a great extent level. It is followed by the Text Book contains activities that are capable of developing values like civic sense, secularism, patriotism, respect towards national leaders, tolerance, co-operation, ability to respond and react in a situation (84.31%), activities that enable students to understand and act against the human interventions that bring about an adverse effect on Earth's ecology are included in the Text Book(83.01%), different techniques/ strategies of learning suitable for knowledge construction are included in the activities (e.g. dialogues, interviews, seminars, projects, etc.)(82.35%), there are activities that help students to realise how natural phenomena affects one's life(73.20%), there are opportunities/ instructions to use secondary and tertiary sources apart from Text Books for Knowledge construction(72.90%), there is sufficient content in the Text Book to create awareness in the students about production, distribution, consumption, distribution of wealth, etc. (72.90%), there are activities suitable for developing a positive attitude towards protecting and maintaining our cultural heritage(71.24%), there are activities that help students to analyze historical events and to form a futuristic outlook(68.63%) and the contents in the Text book enable the students to think and analyze critically about the social problems and act towards social welfare(61.44%).

Even though majority of teachers responded for the different aspects of the Social Science text book positively to a great extent level a significant number teachers responded to some extent level especially regarding opportunities/ instructions to use secondary and tertiary sources apart from Text Books for Knowledge construction, sufficient content in the Text Book to create awareness in the students about production, distribution, consumption, distribution of wealth, etc., there are activities that help students to analyze historical events and to form a futuristic outlook, contents in the Text book enable the students to think and analyze critically about the social problems and act towards social welfare and there are activities suitable for developing a positive attitude towards protecting and maintaining our cultural heritage.

Responses made by teachers regarding Social Science Teacher Text

Responses made by teachers regarding Social Science Teacher Text were collected and analyzed . The details are given in Table 4.64

Table 4.64**Percentage of Responses made by teachers regarding Social Science Teacher Text**

SI No	Statements	Responses in Percentage		
		GE	SE	NA
1.	Provides adequate information regarding the learning objectives of Social Science text	83.01	17.99	00
2	Gives a clear indication regarding how to plan each activity to ensure the achievement of targeted learning outcome.	72.55	28.45	00
3.	Provides adequate extra knowledge in the conceptualization of contents	45.75	55.25	00
4.	Different strategies for learning Social Science are mentioned in the Teacher Text.	58.82	41.18	00

From the table 4.64 it is found that ‘teacher text provides adequate information to a great extent level regarding the learning objectives of Social Science text’ and ‘a clear indication regarding how to plan each activity to ensure the achievement of targeted learning out come’ were the responses made by majority of teachers in Social Science(83.01% and 72.55% respectively). It is also found that 58.82% of teachers responded that different strategies for learning Social Science are mentioned in the Teacher Text to a great extent level while 55.25% opined that TT provides adequate extra knowledge to some extent level.

From the analysis it is seen that even though Social Science teacher text provides adequate information regarding the learning objectives of Social Science text and clear indication regarding planning of activities to ensure achievement of targeted learning outcomes, majority of teachers reported that adequate extra knowledge is not provided in great extent in the teacher text.

Difficulties experience by Social Science teachers in the classroom

Responses made by teachers regarding problems experienced by them in the class room were collected and analyzed. The details are given in Table 4.65

Table 4.65

Difficulties experienced by Social Science teachers in the classroom

Sl No	Statements	Responses in Percentage	
		Yes	No
1.	To Transact the lessons according to the levels of students	43.79	56.21
2	To present problems in relation with life	77.78	22.22
3.	To relate the learning tasks with current social events.	95.42	4.58
4.	To provide other resources for the collection of knowledge	84.97	16.03
5.	To provide activities that help in conceptualizing abstract ideas through a concrete approach	77.12	22.88
6	To develop worksheets that are capable of realising the learning out comes and to assess whether the students have attained them	87.58	12.42
7.	To provide activities for the differently abled students	64.05	35.95

From the table 4.65 it is found that a great majority of teachers reported that they feel difficulty in relating the learning tasks with current social events. Majority of teachers reported that feel difficulty to develop worksheets that are capable of realising the learning out comes. It is followed by : to provide other resources for the collection of knowledge , to provide activities that help in conceptualizing abstract ideas through a concrete approach, to present problems in relation with life and to provide activities for the differently abled students. While 43.79% of teachers reported that the feel difficulty in transacting the lessons according to the levels of students.

From the analysis it is found that teachers in Social Science are facing many difficulties in class rooms. Among them highest difficulty reported were relating the learning tasks with current social events and developing worksheets that are capable of realising the learning out comes and least difficulty in transacting the lessons according to the levels of students.

VI. CLASS OBSERVATION SCHEDULE

This section deals with the analysis of the data collected through class observation using rubrics. 12 classes (**standard VII**). The details are given under appropriate heads.

Table 4.66

STANDARD: VII

SUBJECT: SOCIAL SCIENCE

Sl. No	Dimensions		Very Good	Good	Needs Improvement	Does Not Meet Standards	No Remarks
1	Teaching Manual		2	7	2	1	0
2	Preparation		2	7	3	0	0
3	Interest and Motivation		3	5	3	0	1
4	Learning Activities	Nature	3	7	2	0	0
		Continuity	2	6	5	0	0
		Use of Learning Materials	2	8	3	0	0
		Knowledge Construction through Learning Activities	3	7	2	0	0
		Development of Attitude and Values	4	3	1	4	0
		Involvement of Learners	3	6	3	0	0
5	Learning Environment		1	7	3	1	0
6	Classroom Intervention		3	5	3	0	1
7	Reflective Thought		2	3	3	2	2
8	Consolidation		3	1	6	1	1
9	Evaluation Process	Process	2	3	4	4	0
		Self -Assessment					
		Peer Assessment					
		Portfolio					
10	Overview of the Class		0	5	4	0	2
	Total						

1. Teaching Manual (TM)

Regarding the observation of classes of 12 teachers (Table –), only two teachers have prepared TM using additional resources and creative activities other than Teacher Text,

whereas seven teachers prepared the TM using essential resources and activities. It is also observed that two of the TMS were prepared based on the curricular approach to some extent and one of the teaching manuals needs improvement since resources and activities to be used were not at all included in it.

2. Pre-planning

It is observed that only two teachers ensured the necessary pre-requisites using variety of creative activities, while seven teachers provided a variety of learning activities to get adequate pre-requisites to all learners. At the same time seven teachers provided activities necessary for basic pre-requisite knowledge to very few learners. But three teachers not at all provided any activities to ensure necessary pre-requisite.

3. Interest and motivation

Table 4.66 shows that only three teachers provided life-oriented and thought provoking activities like description, stories and leaning materials for developing interest and motivation among the learners. Five teachers made the class interesting using descriptions, stories and learning materials. At the same time three of them motivated the learners by only describing the content and asking questions.

4. Learning Activities

Observation of classes of 12 teachers indicated that, in three classes learning activities suggested in TB and TT used by teachers used were highly effective for developing reflective thinking among learners. At the same time in seven classes variety of learning activities provided were effective. In two other classes it is found that learning activities were carried out mechanically.

Two of the teachers transacted the content in a sequential order. Spontaneous progress in learning and timely recording in the TM were there in six classes observed. It is significant to consider that in five classes continuity was losing in certain places.

Among the 12 teachers two teachers were using innovative learning aids, prepared by local resources, for attaining conceptual clarity and eight teachers used easily accessible learning aids recommended in the curriculum and three teachers used minimum number of learning aids already available in the school.

Regarding the knowledge construction through learning activities it is found that three teachers supported the learners to attain higher level of knowledge construction

through variety of learning strategies including reflective questioning and debating, seven teachers intervened actively by discussion and clearing doubts where as two teachers only tried to clarify the doubts through explanations.

It is seen that four teachers are providing slots for learning activities to develop attitudes, values and social responsibilities stipulated in the content for intellectual and emotional development, three teachers provided learning activities for intellectual and emotional development and through advice and suggestions were the measures taken by two teachers for developing attitudes and values .

It is again observed that five teachers helped learners to identify their roles and ensured their involvement in group and individual activities, other five teachers helped learners to identify their roles in learning situations correctly, but the involvement of all learners were not ensured and only one teacher didn't cared for the identification of their roles and didn't ensure the involvement of all learners equally in learning process.

5.Learning Environment

From the classes observed it is noted that only one teacher creates infrastructure/ICT facilities and independent social and emotional environment suitable for learning activities for all types of learners, while 6 teachers provided learning activities based on available infrastructure/ICT facilities and creates essential situation necessary for independent social and emotional environment. It is serious to consider that five teachers are not even using available infrastructure/ICT facilities.

6. Class room intervention

As per the analysis it is observed that five teachers intervened with all type of learners as a mentors rather than teachers where as five teachers made only essential interventions as teachers to attain learning out comes and two of them intervene only as much required to transact the content.

7. Reflective thinking

It is observed that out of the 12 classes observed three teachers provided variety of opportunities for reflective thinking in the concerned class itself and provided Remedial measures and other three teachers provided opportunity for reflective thinking. It is also noted that activities/situations provided by four teachers were not adequate for providing

reflective thinking and it is serious to consider that no situations were provided by two teachers .

8. Consolidation

It is found that in the three classes observed teachers consolidated individual and group activities so as to ensure the learning during and at the end of the class, where as the other three consolidated group activities during and at the end of the class , where as in other three classes observed teachers consolidated only at the end of the class, but no consolidation was there in three classes observed.

9. Evaluation

From class room observation it is found that two teachers used variety of strategies for different types of evaluation, while 6 teachers were seen using variety of strategies for evaluating learning outcomes based on the content. It is also seen that two of the teachers depend on certain evaluation strategies suggested in the text book. Evaluation as envisaged by curriculum was not followed by two of the teachers.

10. Overview

From the analysis it can be tentatively concluded that among the 12 classes observed the performance of teachers is almost average with regard to the components like Teaching Manual preparation, learning environment, classroom intervention and evaluation process. The above mentioned findings high light the need for empowering science teachers with necessary competencies and skills for making the learning process oriented learner friendly.

VII. Answer sheet analysis-Error Analysis

Table 4.67

Data Analysis – Consolidation (Activity – Wise)

Activity	Assessment
<p>A. Write the name of two categories of people who were exploited by the British East India Company?</p> <p>B. In what ways did East India Company exploit the farmers?</p>	<p>15 students have applied their knowledge well in answering question A. 5 students have completely grasped the learning outcome of question B. 9 of them have responded with lack of clarity. 2 students do not have the knowledge of content. The questions have been prepared just as a memory test rather than assessing the real grasp of the chapter.</p>
<p>A. During the middle ages which group of languages was considered as scholarly language?</p> <p>B. How far did the scientific advancements in the renaissance period influence human life?</p>	<p>10 students are able to answer question A applying the knowledge they have achieved. 6 students attempted the question wrongly.</p> <p>Question B is successfully attempted by 3 students and partially by 4 students. 4 students responded without understanding the concept. It should be evaluated whether the learning outcome has been suitably presented considering the social and psychological condition of the learner. Question should be set in such a manner to attract the interest of the learners.</p>
<p>A. Which are the factors that instigated the Britishers in defeating Mysore?</p> <p>B. Complete the table according to the leaders and their places in the revolt of 1857.</p> <p>C. From the given table figure out the inferences related to India's struggle to independence.</p>	<p>Question A is successfully attempted by only 1 student and partially by 4 students. 9 students responded without understanding the concept. 2 of them left the question unanswered.</p> <p>11 students have gone through question B using skills of observation, comparison, analysis etc. but only 1 student could reach meaningful conclusion from it. 5 students responded with partial clarity of concept. The observations of 9 students have gone wrong and 1 student left the question unanswered.</p> <p>Apart from question A which solely measured the memory of the learner questions B & C were presented as a challenging one to assess the learning outcome of the students.</p>
<p>A. Name the malayali who helped the Dutch in the preparation of HortusMalabaricus.</p> <p>B. Why were the Portugeuse unable to establish enough trade centres in India?</p> <p>C. What were the common features of the trade centres established by the Europeans</p>	<p>6 students answered question A correctly, 8 of them answered wrongly and the remaining 2 left it unanswered. Only 2 students answered question B to the exact point while 3 of them got it partially right. 9 students attempted wrongly and 2 left it unanswered.</p> <p>Only 1 student has undergone generalization, conclusion processes while answering question C. 3 students have partially analyzed it. 8 students have wrong answer for the question. 4 students did not attempt it. Questions were competent enough to assess</p>

in India?	the students' grasp of the content.
A. Why is Italy known as the centre of renaissance? B. Which all peculiarities of Constantinople led to the emergence of renaissance in Europe?	5 students expressed themselves correctly imbibing the learning outcome. 5 students partially achieved the outcome. 3 students responded without understanding the concept and 3 students skipped the question. The activity has been copied as such from the text book. Memorisation of content is given due importance in this activity.
A. Name two evil practices/customs which existed in India. B. Write your opinion on the dowry system.	Question A is successfully attempted by 9 students and partially by 4 students. 2 students responded without understanding the concept. 1 of them left the question unanswered. While attempting Question B no one among the students used the skills of observation, comparison, analysis, inference etc. Only 6 of them have tried to analyze it, 7 students made observations without proper understanding of the learning outcome. 3 students did not answer the question.
	Classes should be made lively with activities that would build social awareness, proper attitude, understanding, logical thought etc in our students. Activities like seminars, discussions, debates etc should be given importance in the transaction of concepts. After assessing the activities, it is felt that our classroom are lacking in such activities.

overview

1. Students need more help in developing skills of observation, comparison, analysis, and using them to reach meaningful conclusions.

VIII. Text book analysis

Analyze the text and give explanation to the following. Explanation should be written on the basis of the title of the unit.

1.

Details

- Lessons doing justice to the attitude of constructing knowledge.
- Did not grasp the attitude of knowledge construction fully
- Under importance is given to the aim of transferring learning outcomes to students

- Excess content is being thrust (imposed) in children
- Learning outcome can be inculcated in children if presented in the style of speech

Specific details are given below:

The first unit itself is 'Europe in the path of Transformation'. It's difficult to correlate not only 'Humanism and renaissance' but most of the place names and names of persons also to the previous knowledge of the student. Though new knowledge is formed in children, the recognition of the social awareness and personal thought are not being encouraged.

The method of progressing from 'the known to the unknown' should have been stressed. How far the text book presentation style is effective in inculcating (developing) interest in children should be evaluated.

Lessons are suitable for the learning outcomes.

Or

(lessons can transact learning outcome to children)

It's an advantage to include worksheets in HB.

It should be examined whether the whole content can be transferred to children how ever planned the presentation is,

2. Details

- sufficiency of the content to imbibe learning outcomes.
- The content is sufficient to acquire learning objectives to a certain extent.
- Some part of the content is above the child's mental, social, and intellectual standards.
- Explanation should be presented lucidly.(in simple manner)

Explanation

Needs more clarity in Aryasamaj in unit-3; importance of farming in unit-5, the variations of temperature, pressure and weather condition as we go up from the sea level.(at high attitudes) in unit 12.

The disaster like earthquake ,Tsunami and their causes could have been included in unit-7. The importance of kudumbasree is presented in unit-5. Similarly Agriculture, small scale industries and cottage industries are not given importance.

The countries which were part of British India could have been mentioned. (India, Pakistan, Nepal....etc)

More activities are needed to explain the relation between individual and society in unit-II.

The importance of Social relations should be stressed(should be given stress)

Details

Variety of learning activities.

- Collaborative learning
- Cooperative learning
- Group discussion etc. are not given importance

Though learning activities are different in nature the areas like comparison, observation, analysis, inferences etc. are not stressed.

ICT possibilities are less.

Explanation

In unit-5, while the ratio of people whose works is related to agriculture in the primary sector falls down, the ratio of people working in the secondary and territory sectors goes up (increases) what are the reason for this?

Similarly there are only limited opportunities for remedial teaching and guessing and presenting small and simple issues suitable for group activities.

Field trips are not encouraged.

More opportunities are needed to analyze tables.

Presentation style doesn't contains suitable activities.

Unit – 8,2,3.

3. Details

Appropriateness of the content for process oriental learning.

Activities are given less importance as undue importance is given to learning outcomes.

Content is almost appropriate to process oriented learning.

Some units are exceptions to this.

Explanation

Unit -1.Europe in the path of transformation.

Content is presented directly. Opportunities for conducting group discussion or deriving findings is less.

Some part of the units 2, 3,5,8,9 etc are presented through activities. But units 1,6,7,10,12 etc are not in the method of explanations, rather presented in the question answer key.

Group discussions and findings are not encouraged.

Unit -9. The suffering and sacrifices of the leaders who took part in freedom struggle and succumbed to death enduring the cruel fore fare of the British are not highlighted.

The style of dramatics is not at all depended on.(used)

Unit-7 The dangers posed by plastic wastes and need for avoiding plastic could have been presented.

The undue importance given to learning outcomes and the hugeness of content keep the children away from the process of constructing knowledge for achieving values, attitudes etc.

6. Details

The appropriateness and clarity of pictures, graph, maps, etc.

Though suitable pictures are included they are not in the required size or clarity.

Sufficient graphs ,mapsetc are not included.

Explanation

In unit-2, the map of the French – British excepted places are given. It could also have been presented in such a way to identify the state or country in which the place now belongs to.

Third unit also has the same problem – on page no;33. In unit-A, the pictures of JyothiRavuPhule ,PanditRamabhai etc. should also have been included. The pictures in unit-4 are appropriate and the graphs and table are also appropriate.

In unit-6, the physical map of kerala is included with all the essential elements of maps in general.

Or

Unit -6 comprises the physical map of Kerala including all the essential elements of maps, but met insufficient size.

In unit-9, the pictorial representation of Quit India struggle should have been included.

The pictures 121,122,123 of unit 10 in TB lack clarity. The pictures in units 12:8, 12:12 do not have enough size or clarity. Same problems occur in unit -13. The map of modern India is not these in the text book. The maps, graphs and tables indicating the farmlands and farming both in Kerala and India are not included.

5. Details

The language of interacting with children.

The contents of most of the units are presented in such a way that the students can understand, but the method of imposing the content on children can be seen at least in some places.

Explanation

Unit-1 Renaissance. (page9)

Unit-2 Competition for trade, East India Company to power

TB.page.20, 21, 22, unit-4 page(40,41).

Unit-6 Page 62. The comparison of maps should be given in tabular form.

Unit -7. Extinct farmlands (extinct fields)

Page (15) (no solution is suggested for presenting it as an issue)

Almost all parts in unit-10 gave undue importance to content and there is no interaction with children in their own language. As undue importance is given to the content in almost all part of unit-10, there is no interaction with the children in their own language.

7. Details

The lesson which still need more explanation

Or

The parts of lesson which need more elaboration

There are occasions when the leaner experiences a lack of quality though lessons are presented with enough elaborations

In unit-13 'why Rajasthan Turned into a Desert', the consequences (drastic effects) of barren land could have been exposed. The activities to encourage afforestation should be included.

Explanation

- Enough follow up activities are given in most units. If proper portrayal (picturisation) is included in the teacher text, it will be a stepping stone to quality education.
- While unit-2 stresses the profit to our country through trade relations, (with foreigners) the heavy loss incurred by the country should also have been discussed.
- The importance of farming (agriculture) and the economic and social reactions should also be included(unit-5)
- Learning situations to justify the learning outcome of developing the attitude to (respond, react) against the prevailing social evils are not arranged.(unit-4)
- The causes and consequences of natural disasters like earthquake, tsunami etc should be explained (elaborated)unit-7
- Terrorism could have been explained in unit -8
- Brother Ayyappan and EMS could have been included in the group of social reformers and explained.
- Social changes should be discussed along with land reforms
- In unit-9 there is lack of learning activities exhorting that freedom must be presented.
- In unit-11, the relation between individual and society should be explained more.
- In unit-12, learning situations to encourage activities for the protection of environment should be arranged.

8.Details

The part of lessons where explanation should be simplified.

It is clear that in some situations the lessons should be simplified.

Or

It is clear that in some situations in particular places, the lessons should be simplified.

The standard of learning can be (improved) raised if the lessons are simplified with respect to the mental growth and social status of the children

Or

The standard of learning can be raised if simplification is made possible considering the mental growth and social background of the children.

Explanation

In unit -1, the students will develop their interest in learning social science of the period of renaissance and development of humanism are presented in the simplified manner; like wise , the learning situations from the raise of Indian national congress in unit-4 should also be simplified. In unit-6, the latitudes and longitudes in page 68 should be presented in simplified manner so as to(recognize) the latitudes and longitudes of places. The explanation of the characteristics of our constitution in unit 10 and identifying the clouds of different shapes by observing the sky in unit 12 should also be simplified. The possibility of analysis using vivid pictures, tables and surveys should also be simplified.

10. Details

Ensuring that there is no discrimination of any kind

An open attitude can be read in all parts of the lesson. Yet, the learning experiences cannot satisfy the learners of different levels alike. The method of progressing from simple to complex is completely ignored in some places.

Explanation

Unit-1 Europe in the path of transformation.

(The first unit itself is about the world map and getting of renaissance through it) is not formed in a simple manner.

- If discussion method is used instead of explanation method in the textual part of expanding power in unit-2, the student s backward in studies can also be included.

Or

- In the textual part of ‘expanding power’ in unit-2 , if discussion method was used instead of explanation for presentation, it call have included the student backward in studies too.
- It is doubtful that the names of EMS, Brother Ayyappan from the group of social reformers are not used.
- It is to be examined whether discussions an the fact that women intervened strongly in freedom struggle agitation have been included.

- Even in those days women displayed leadership skill.
- Eg: Jhansi Rani, Beegam Hassat

9. The prospect necessary for continuous evaluation

Though learning situations and opportunities that enable continuous evaluation are less in text book, the teacher text is used to solve this.

The part “evaluate” which is included after the learning part is quite good.

12. Child friendly lay-out

The hugeness of the content(the abundance of the content) set the social science text aside at least to a certain extent from child friendly layout.

Or

(The hugeness of the content is set back with regards to child friendly lay out)

Moreover, in some places the method of process of presentation is not depended on.

The work sheet included in teacher text satisfies continuous evaluation. But it is to be explained whether not encouraging project, survey, seminar, collection etc. are a barrier to the children for auto evaluation and continuous evaluation.

The part evaluation is included in all units in text book. Though LOS are not sufficient for complete evaluation, it is presented in a way to help continuous evaluation.

The teacher text helps to simplify (lesson) the hugeness of the content to a certain extent, it is not presented completely in the method of learning process.

Eg: unit-1, unit-4, unit-7, 10, 12 etc.

More attractive pictures need to be included in text book

The lessons can develop interest in studies and share ideas only if the pictures are depicted in sufficient size and clarity.

13. The prospects of Democratic values

The text book is envisaged to democratic values. Yet whether the child has imbibed the friendly attitude fully in to the examined

14. Others

Text book is suited to present the content directly. However, if the teachers text is fruitfully used, the teacher can converse with the student with regard to their mental standards.(according to their mental standards)

The text comprises the values like the relation between nature and humans, Human right protection, Equity, secularistic Attitude, Tolerance, creativity etc. At least some lesson should be changed in a way to create child friendly environment.unit-1,10,12.

Text book can be made more attractive. The standard of printing of pictures should be improved.

Or

Should improve the standard quality of printing

Should improve the quality of paper used.

Number of papers can be increased by cutting down length and breadth

It'd be better if the cover page is water proof.

Binding should be improved more.

It will be convenient for the student if there is each books for each term

Or

A book for a term will be convenient for the students.

13. The suitability of teacher text for transaction of the lessons

The teacher text maintains a high standard. However, the examples provided in mathematical terms in 'Attitude of Evaluation' in the pages 39, 40 are not correct.

All the units are portrayed in such a way to help the text book and to have additional reading. Worksheet included is helpful for continuous evaluation and measuring the Childs standards of learning. The lessons are arranged in such a way to find out the skills, ideas, attitudes and values. the child has imbibed through the lesson and to plan the learning activities accordingly and evaluated efficiently.The things that encourage and help the teacher for additional reading are quite less.

Example: Explaining/discussing latitudes and longitudes.

II. E. Mathematics

I. LEARNING OUTCOME

The teachers were asked to mark their responses regarding the characteristics of learning outcomes envisaged in the Curriculum 2013. The responses were collected and analyzed. The results are given under the subheadings based on the subject of the teachers.

Clarity of the features of the learning outcomes

The teachers are asked to mark their opinion regarding the clarity of different features of the learning outcomes envisaged in the curriculum 2013 as 'Yes' or 'No'. The responses obtained from mathematics teachers were tabulated and analyzed. The result showing the percent of teachers who have and do not have clear idearegarding the different features of the learning outcomes envisaged in Curriculum 2013 are given in Table 5.1

Table 5.1

Clarity of the features of the learning outcomes

Statement	Responses in Percentage	
	Yes	No
Clarity regarding features of the learning outcomes envisaged by curriculum 2013	81.01	18.99

From Table 5.1, it is observed that majority of teachers (81.01%) in Mathematics have a clear idea regarding the characteristic features of the learning outcomes envisaged in the curriculum 2013. But 18.99% of teachers in Mathematics opined that they don't have the clear idea of the characteristic features of the learning outcomes envisaged in the curriculum 2013.

Therefore it can be inferred that the characteristic features of the learning outcomes envisaged in the curriculum 2013 are clear to majority of teachers who are teaching Mathematics in class VII. It should be noted that among the mathematics teachers of Class VII a small group do not have clarity regarding the characteristic features of the learning outcomes envisaged in the curriculum 2013.

The areas which they need more clarity regarding characteristic features of the learning outcomes envisaged in the curriculum 2013 are mentioned below:

- Those acquired by learners through subject-specific learning
- That can be observed and measured
- That can be achieved in short term and long term
- Process oriented learning outcomes
- Outcomes which develop values and attitudes and social commitment
- Outcomes which can be developed through collaborative learning

Ensuring the attainment of expected learning outcomes

The teachers are asked to mark their opinion regarding the ensuring of attainment of expected learning outcomes through the transaction of content as ‘Yes’ or ‘No’. The responses obtained from mathematics teachers were tabulated and analyzed. The result showing the per cent of teachers who ensure and do not ensure the attainment of expected learning outcomes through the transaction of the content are given in Table 5.2.

Table 5.2

Ensuring the attainment of expected learning outcomes

Statement	Responses in Percentage	
	Yes	No
Ensuring the attainment of the expected learning outcomes in all learners through the transaction of the content	25.32	74.68

Majority of teachers (74.68%) teaching Mathematics in standard VII opined that they couldn't ensure that all learners achieved the expected learning outcomes to be attained through the transaction of the content. Only 25.32 % of teachers could ensure that all learners achieved the expected learning outcomes through the transaction of the content.

It is noteworthy that majority of mathematics teachers learners couldn't ensure the achievement of the expected learning outcomes through the transaction of the content.

2a. Among the teachers who couldn't ensure the attainment of expected learning outcomes in all learners through the transaction of the content suggested different measures to be practiced and included in the mathematics textbook of class VII. Measures suggested by teachers for ensuring the achievement of the expected learning outcomes in all learners through the transaction of the content are:

- Simplification of the content
- Extended activities
- Peer teaching
- Special Training

Differentiating short term and long term learning outcomes

The teachers are asked whether they could differentiate between the short term and long term learning outcomes imbibed in mathematics textbook as ‘ To a great extent’, ‘To some extent’, and ‘Not at all’. The responses given by the teachers are collected and analyzed. The result obtained is given in Table 5.3

Table 5.3

Differentiating short term and long term learning outcomes

Statement	Responses in Percentage		
	To a great extent	To some extent	Not at all
Differentiate between the short term and long term learning outcomes	32.28	66.46	1.26

From table 5.3, it is clear that majority (66.46%) of teachers in Mathematics could differentiate between short term learning outcomes from long term learning outcomes only to some extent. Among the teachers 1.26% couldn’t differentiate between the short term and long term learning outcomes. Only 32.28% of teachers could differentiate between short term and long term learning outcomes.

Therefore it is inferred that a majority (66.46%) of teachers in Mathematics couldn’t differentiate between short term and long term learning outcomes.

spiraling of learning outcomes to ensure continuity and growth

The teachers are asked whether the learning outcomes are arranged in such a way to ensure the continuity and development of it from the lower to higher classes. The responses marked by mathematics teachers are as ‘Yes’ and ‘No’. The result collected and analyzed is given in Table 5.4

Table 5.4

spiraling of learning outcomes to ensure continuity and growth

Statement	Responses in Percentage	
	Yes	No
Arrangement of the learning outcomes in such a way to ensure the continuity and development of it from the lower to higher classes	93.67	6.33

From the table 5.4, it is clear that a great majority (93.67%) of teachers in mathematics agreed that the learning outcomes are arranged in such a way as to ensure the continuity and development of it from lower to higher classes.

Thus it can be inferred that the spiraling of learning outcomes are ensured from lower to higher classes.

4a. The teachers who opined that the learning outcomes are not arranged in such a way as to ensure the continuity and development of it from lower to higher classes suggested to

- Ensure spiraling of learning outcome
- The text book of classes from 1-7 should be prepared by the same group of teachers to ensure spiraling.

Observable and measurable learning outcomes given in different units

Mathematics teachers were asked whether the learning outcomes given in different units are observable and measurable. The teachers responded to the question and it was collected and analyzed. The per cent of teachers who responded to this question is recorded in Table 5.5.

Table 5.5

Observable and measurable learning outcomes given in different units

Statement	Responses in Percentage	
	Yes	No
Opinion regarding observable and measurable learning outcomes	90.50	9.50

The table 5.5 shows that a great majority of teachers (90.50%) in Mathematics opined that the outcomes given in different units are observable and measurable. Minor percentage (9.50) of teachers opined that the learning outcomes given in different units are not observable and measurable.

Almost all the teachers(90.50%) in Mathematics are of the opinion that the learning outcomes given in different units are observable and measurable.

Acquisition of ideas/ skills from each unit through the learning outcomes.

The teachers were asked whether they could understand the ideas/ skills to be acquired from each unit through the learning outcomes. The responses collected and analyzed are recorded in table. 5.6.

Table.5. 6

Acquisition of ideas/ skills from each unit through the learning outcomes

Statement	Responses in Percentage		
	To a great extent	To some extent	Not at all
Understanding the ideas/ skills to be acquired from each unit through the learning outcomes.	68.99	29.74	1.27

As per the table5.6, majority (68.99%) of teachers in Mathematics responded that they could understand to a great extent the ideas/skills to be acquired from each unit of Mathematics text book through learning outcomes. 29.74% responded that they could understand the ideas/ skills to be acquired only to some extent. About 1.27% of teachers opined that they couldn't at all understand the ideas/ skills to be acquired from each unit of Mathematics text book through the learning outcomes.

It is noteworthy that 31% of mathematics teachers couldn't understand the ideas/skills to be acquired from each unit through the learning outcomes.

Learning outcomes according to the age-level of learners

The teachers are asked to opine whether the learning outcomes are given according to the age- level of the learners as 'To a great extent' or 'To some extend' or 'Not at all. The responses obtained from mathematics teachers were tabulated and analyzed. The result showing the per cent of teachers who responded are given in Table 5.7.

Table 5.7

Learning outcomes according to the age-level of learners

Statement	Responses in Percentage		
	To a great extent	To some extent	Not at all
Learning outcomes are given according to the age-level of the learners.	48.10	50.63	1.27

The table 5.7 shows that, 50.63% of teachers responded that learning outcomes are age specific only to some extent. 4.43% of teachers opined that the learning outcomes are not at all age specific. Comparatively similar percentage (48.10) opined that learning outcomes are age specific.

It can be concluded by the majority of mathematics teachers(50.63%)that the learning outcomes given in different units of Mathematics textbooks of class VII are not according to the age level of learners

Learning outcomes helpful for self-evaluation.

The teachers are asked to respond whether the learning outcomes imbibed in mathematics textbook are helpful for self-evaluation. The responses were marked as ‘To a great extent’, ‘to some extent’, and ‘Not at all’. The responses obtained were tabulated and analyzed. The result showing the per cent of teachers who responded are given in Table 5. 8.

Table 5.8

Learning outcomes helpful for self-evaluation

Statement	Responses in Percentage		
	To a great extent	To some extent	Not at all
Learning outcomes are helpful for self-evaluation.	39.24	58.86	1.90

Table 5.8 shows that 58.86% of teachers in Mathematics opined that learning outcomes are helpful only to some extent for self-evaluation whereas 1.90% of teachers opined that the learning outcomes are not at all helpful for self- evaluation. Only 39.24% of teachers in Mathematics opined that the learning outcomes are helpful for self- evaluation to a great extent.

It is noteworthy that majority of mathematics teachers have the opinion that the learning outcomes are not helpful for self-evaluation only to some extent level.

Time bound completion of learning outcomes.

The responses regarding the possibility of time bound completion of the learning outcomes is recorded as ‘Yes’ or ‘ No’. The responses are tabulated and analyzed. The percentage of responses is given in Table 5.9.

Table 5.9

Time bound completion of learning outcomes

Statement	Responses in Percentage	
	Yes	No
Whether the time bound completion of the given learning outcomes is possible?	39.24	60.76

From Table 5.9, it is found that majority (60.76%) of teachers reported that the time bound completion of learning outcome is not possible in the case of Mathematics text books of class VII. Only 39.24% of teachers agreed that time bound completion of learning outcomes is possible in Mathematics.

It should be specially noted that majority (60.76%) of teachers reported that the time bound completion of learning outcomes given in mathematics textbook of class VII is not possible.

Reasons for inability to complete the given learning out comes.

9a. Vast majority of the teachers opined that it is not possible to complete the given learning outcome in time. They opined that they could not cover in a given time due to the following reasons.

- Lack of time
- Excess content depth
- Involvement of teaches in election duty, census, youth festivals, etc.
- Presence of differently abled learners in the classroom

Outcome focused methodology to ensure the level of learning proposed by RTE

The teachers were asked to record their opinion whether the outcome focused methodology is helpful in ensuring the attainment of level of learning envisaged by RTE. Their responses were recorded as ‘Yes’ or ‘No’. The responses tabulated and analyzed is given in Table 5.10.

Table 5.10

Outcome focused methodology to ensure the level of learning proposed by RTE

Statement	Responses in Percentage	
	Yes	No
Outcome focused methodology helpful in ensuring the attainment of level of learning envisaged by RTE	87.34	12.65

Table 5.10 shows that a great majority of teachers (87.34%) opined that the outcome focused methodology is helpful in ensuring the level of learning envisaged by RTE. A minor group (12.65%) opined that outcome focused methodology is not helpful in ensuring the level of learning envisaged by RTE.

It is noteworthy that about 13% of teachers in mathematics have the opinion that the outcome focused methodology is not helpful in ensuring the level of learning envisaged by RTE.

II. LEARNING RESOURCES

The teachers were asked to mark their responses regarding the learning resources such as textbook, teacher text, other facilities in the school etc. the responses were collected and analyzed. The results are given under appropriate heads.

Features of Mathematics Textbook

The teachers are asked to mark their opinion regarding different features of the textbook as 'Agree' and 'Disagree'. The responses obtained from mathematics teachers were tabulated and analyzed. The results showing the percent of teachers who agreed or disagreed to different features of the textbook are given in Table 5.11.

Table 5.11**Features of Mathematics Textbook**

Statements	Agree (%)	Disagree (%)
Content appropriate to the level of the learners	91.14	8.86
Conceptual Clarity	91.4	8.6
Adequate learning activities are given in the Text book to achieve the learning outcomes	80.38	19.62
Language appropriate to the level of learners	86.71	13.29
Pictures, lay-out, etc., arouse interest in the learners	88.61	11.39
Activities considering different level of learners	46.2	53.80
Adequate follow up activities are mentioned	75.95	24.05
Opportunity to foster the creativity of learners	89.24	10.76
Units are framed considering the possibilities of varied learning strategies	96.84	3.16
Concepts are arranged spirally	93.67	6.33
Slots for ICT are given for effective learning	98.73	1.27
Adequate activities are given in appropriate situations to enhance values and attitudes in learners	87.34	12.66

From the Table 5.11 it is found that among the different characteristics of the Textbook a great majority of teachers (greater than 90%) reported that content are appropriate to the mental level of the learner, units have conceptual clarity and are framed considering varied learning strategies, concepts are arranged in a spiraling manner and have slots for using ICT for effective learning.

Majority of teachers (70-89%) agreed that in mathematics text book, language used is appropriate to the level of learners, pictures, lay out, etc. arouse interest in learners, opportunities are there to enhance creativity of learners, and follow-up activities are mentioned.

But 53.50% of teachers opined that activities considering different levels of learners are not present in the Mathematics text book.

Even though majority of teachers favour the most of the characteristics of the Mathematics textbook, 53.5% of teachers opined that those activities considering different levels of learners are not present in the Mathematics text book.

Responses of teacher for not agreeing with the features of text

The teachers are not agreeing with the learning activities given in the textbook for differently abled learners. The difficulties reported are :

- Lack of activities for inclusive learning
- Lack of appropriate learning activities.
- Lack of previous knowledge.

In the area appropriateness of the content for the intellectual level of the learners, most of the teachers disagreed. The reason stated is:

- The content is above the level of the learners of standard 7.

Most of the teachers disagree that the layout and the pictures of the TB are attractive for the learners. The reasons highlighted are:

- Lack of clarity,
- Ambiguity in the content.

A few teachers disagree that there are sufficient learning activities for the attainment of learning outcomes. The reason pointed is :

- Some of the learning activities do not focus the desired outcome.

Some of the teachers could not agree that hints/links are provided for effective ICT enabled learning. The reasons provided are:

- Links/hints in the TB are not accessible, suitable and appropriate.

A few teachers do not agree that there are ample opportunities for promoting creativity among learners. The reason is

- Lack of extended activities for enhancing creativity.

Some of teachers are against the idea that sufficient no. of extended activities are included in the text.

A few teachers disagree that the learning resources are arranged in a spiraling manner. The reasons pointed are:

- The standard of the text activities in the first few units are above the standard of learners.
- Lack of previous knowledge.

Some of the teachers disagree that the possibilities of various learning strategies are considered in the textbook. The reasons are:

- Lack of opportunity for field trip
- Lack of local resources like library, expert session, etc.

A few teachers could not agree that sufficient activities to promote values and attitudes are given in appropriate situation. The reasons are:

- The activities provided in textbook are from surrounding which the teachers are not familiar with.
- Lack of activities which cater the heterogeneous group of learners.
- Blurred pictures

A few teachers disagree that there is clarity in the content of the TB. The reasons are:

- Difference in grasping the content properly

Even though majority of teachers favours the most of the characteristics of the Mathematics textbook, 53.80% of teachers opined that those activities considering different levels of learners are not present in the Mathematics text book. The difficulties noted by them are lack of activities for inclusive learning, difficult vocabulary which leads to lack of interest in reading, ambiguity in the content, links/hints in the TB are not accessible, suitable and appropriate, lack of local resources like library, expert session and the activities provided in textbook are from surrounding which the teachers are not familiar with.

Features of Mathematics Teacher Text

The teachers are asked to mark their responses regarding different features of the mathematics teacher text as "Yes" or "No". The responses obtained from mathematics teachers were tabulated and analyzed. The result showing the percent of teachers agreed or disagreed to different features of teacher text are given in Table 5.12

Table5.12**Features of Teacher Text:Mathematics**

Statements	Yes	No
1. Text book and the teacher text are complementary to each other	93.04	6.96
2. Hints given are helpful for transacting content	95.57	4.43
3. Helpful in preparing TM	93.04	6.96
4. Specificinstructions are given for CE and TE	90.51	9.49
5. Additional information for the transaction of the lessons are given	81.01	18.99
6. Suitable tools for evaluation are given	90.51	9.49
7. Reference books and different web sitesgiven in the teacher text are helpful for the transaction of lessons	87.34	12.66
8. Periods allotted for each unit are sufficient for its transaction	37.97	62.03
9. Clarifies right-basededucation as envisaged by RTE Act	97.47	2.53
10. Helps the teacher in attaining clarity in the general approach of the curriculum	100.0 0	0.00
11. Provides clarity in professional ethics to be practiced by teachers	96.02	3.80

Table 5.12 revealed that, among the different aspects of the teacher text a great majority of teachers (90% and above) in Mathematics reported that the Text book and the teacher text are complementary to each other, hints given in the teacher text are suitable for transacting lessons, teacher text helps in preparing TM, Instructions are given in teacher text for CE and TE, suitable tools for evaluation are provided in it, it gives clear idea about the Right based education envisaged by RTE act, It helps the teacher in attaining clarity in the general approach of the curriculum, and It provides clarity in professional ethics to be practiced by the teachers.

According to majority of teachers (70-89%) in teacher text additional information is provided for the suitable transaction of the lesson, the reference books and sites referred in the T.T are helpful for the teachers for the classroom transactions.

It is noteworthy that 62.03% of teachers reported the division of periods for each units is not suitable for its transaction and nearly 10% of teachers reported that the teacher text do not provided any instructions for CE and TE, suitable tools for evaluation are not provided and the reference books and sites referred in the teacher text are not helpful for the classroom transactions.

From the results it can be inferred that, even though majority of teachers supports the teacher text in many aspects, the same majority teachers reported that the division of periods given in teacher text is not suitable for its transaction. Similarly nearly 10% of teachers reported as many aspects such as instructions for CE and TE, suitable tools for evaluation are absent in the teacher text and the reference books and sites referred in the teacher text are not helpful for the classroom transactions.

Responses of teachers for not agreeing with the features of teacher text(TT)

Most of the teachers disagree that the periods allotted for each unit are sufficient for the transaction of lessons. The reasons are

- Overcrowded classrooms,
- Excessive number of activities
- Lack of time for processing discourses.

A few teachers disagree that the given hints are helpful for the transaction of TB. The reasons are:

- Text related hints are not clear
- Lack of conceptual clarity in TT
- Lack of explanation for certain areas in the TB.

A few teachers could not agree that the hints given in the TT regarding the reference books and sites are helpful to the teachers in the transaction of TB. The reasons are

- Lack of reference books suggested in the TT
- Lack of facility for visiting sites,
- Lack of available of reference books.

A few teachers do not agree that proper instructions are given for CE and TE in the TT. The reasons given here are:

- Lack of proper training/awareness in CE
- Lack of time for recording CE
- Lack of proper instructions for CE related to each discourse,
- Ambiguity in CE and TE.

Some of the teachers do not agree that TT is resourceful for the preparation of TM.

The reasons are:

- Lack of additional resources
- Lack of sample teaching normal
- Lack of instructions for the preparation a TM.

A few teachers do not agree the teacher text and TB are complementary. The reasons pointed are:

- Lack of details in TT
- Lack of clarification of hard spots
- Lack of link talks and discussion points.

Some teachers disagree that additional information given for better transaction of TB is sufficient. The reasons stated are:

- Clarification regarding the cultural and historical backgrounds of the literary pieces provided in the TB is not given in TT.

Some teachers could not agree that appropriate evaluation tools are provided in the TT. The reason is:

- Appropriate evaluation tools are not incorporated in TT.

Very few teachers disagree that there is clarity in Right based education envisaged by RTE in TT.

From the results it can be inferred that, even though majority of teachers supports the teacher text of Mathematics in many aspects, around half of the (37.97%) teachers reported that the Periods allotted for each unit are sufficient for its transaction. The reasons are overcrowded classrooms, excessive number of activities, lack of conceptual clarity in TT, lack of reference books suggested in the TT, lack of facility for visiting sites, lack of proper training/awareness in CE, lack of additional resources, clarification regarding the cultural and historical backgrounds of the literary pieces provided in the TB is not given in TT and appropriate evaluation tools are not incorporated in TT.

Facilities in the school

The teachers are asked to mark their responses regarding facilities in the schools as "Yes" or "No". The responses obtained from Mathematics teachers were tabulated and analyzed.

The result showing the per cent of responses teachers agreed or disagreed to different features of teacher text are given in Table 5.13

Table 5.13:
Facilities in the school

Facilities	Percentage(%)
Science lab	88.61
ICT	89.24
Science club	86.71
Science corner	64.56
Reading corner	83.54
Mathematics lab	81.65
Display board	82.28
Mathematics club	94.00
Mathematics corner	70.00
Social science lab	60.76
Language lab	83.54
Social science club	84.18
Social science corner	55.00

It is revealed from the table 5.13 majority of the teachers reported (70% -94%) that the facilities such as Mathematics club, ICT, Science lab, Science club, Social science club, Reading corner, Language lab, Display board and Mathematics lab and Mathematics corner are available in schools. It is also found that 64% to 56% of teachers opined that Science corner ,Social science lab are available in schools while only 55% of teachers reported the facility of social science corner and Social science corner.

From this it can be inferred that all most all the facilities are present in majority of schools for effective teaching and learning. However it is noteworthy that 55% of schools do not have many of these physical facilities

Provisions of instructional facilities available in text book and teacher text

Teachers were asked to report the provisions to utilize facilities such as lab ,library ,ICT,Display board,Magazines, Club and corner.The result obtained are explained under three heading

1. Emphasis of facilities given in the content of the lesson in TB
2. Necessary instructions to utilize facilities are given in TT
3. Facilities can be Utilized in learning activities

Emphasis of facilities given in the content of the lesson in TB

The teachers are asked to mark their responses regarding the **Emphasis of Facilities given in the content of the lesson** in TB were analyzed and the details are given in Table 5.14

Table 5.14 :

Emphasis of facilities given in the content of the lesson in TB

Facilities	To a Great extent (%)	To Some extent (%)	Not at all (%)
Lab	46.02	52.53	1.45
Library	41.11	53.80	5.06
ICT	58.86	41.14	0.00
Display board	42.29	50.07	6.96
Magazines	43.03	46.84	10.13
Club	53.16	45.57	1.27
Corner	41.14	44.94	13.92

Table 5.14 revealed that majority of teachers (53% and above) reported that the content in the mathematics text book has given emphasis to great extent level to utilize ICT and club while 41.14% and 45.57% of teachers opined as 'some extent'. But nearly 50% of teachers reported that the content of the lessons in mathematics TB has given emphasis to utilize LAB, Library and Display board are only to some extent. It is notable that nearly 10% of teachers reported that the content of the lesson is not at all has given emphasis to utilize display boards, magazines and corner.

Inference: Though majority of teachers (53% and above) reported the content of the lesson has given emphasis to utilize ICT and club are to 'a great extent', nearly half of the teachers reported there are no emphasis given to utilize magazine and corner in the content of the lesson.

Necessary instructions to utilize facilities in Teacher text.

The responses of teachers based on whether necessary instructions are given in TT were collected and analyzed the details are given in Table 5.15

Table5.15**Necessary instructions to utilize facilities**

Facilities	Great extent (%)	Some extent (%)	Not at all (%)
Lab	55.7	39.24	5.06
Library	50.64	46.20	3.16
ICT	70.89	28.48	0.63
Display board	48.73	44.94	6.33
Magazines	41.77	46.84	11.39
Club	51.9	43.67	4.43
Corner	49.36	36.08	14.56

Table5.15 revealed that majority of teachers (55.7% and above) reported that necessary instruction are provided in T.T. to a great extent to utilize the facilities in schools such as lab, I.C.T., and clubs. While 36.08% to 46.84% of teachers opined as 'some extent' for all the facilities mentioned. It is notable that nearly 11 to 14 % of teachers reported that necessary instructions are not at all provided in TT to utilize magazines and corner.

Inference: Though majority of teachers (55.7% and above) reported that necessary instructions are provided in TT to a great extent to utilize facilities such as Lab. ICT and clubs ,nearly 11 to 14% of the teachers reported that instructions are not all provided in the TT to utilize magazine and corner.

Utilization of facilities in learning activities

The responses of teachers based on Utilization of facilities in learning activities are given in TT were collected and analyzed the details are given in Table 5.16

Table5.16**Utilization of facilities**

Facilities	Great extent (%)	Some extent(%)	Not at all(%)
Lab	51.26	46.84	1.90
Library	43.67	55.06	1.27
ICT	43.2	52.53	1.27
Display board	50.64	44.30	5.06
Magazines	38.61	54.43	6.96
Club	56.33	43.67	0.00
Corner	40.51	46.20	13.29

Table 5.16 revealed that majority (56.33%) of teachers reported that clubs can be utilized for providing learning activities to great extent level. While nearly half (43% to 55%) of teachers opined that they can utilize all the facilities for learning activities only to some extent. A significant percentage of teachers (13.29%) opined that they can, not utilize Corner at all in learning activities.

From this it can be inferred that clubs can only be utilized for learning activities by majority of teachers to a great extent whereas nearly half of the teachers opined that they can utilize all the facilities only to some extent. More over a significant percentage of teachers (13.29%) opined that they cannot at all utilize Corner in learning activities.

Analysis regarding the limitations of the facilities available in the schools and suggestion for betterment

The teachers who opined that the facilities are used only to some extent pointed out some limitations regarding each of the facilities and some suggestions to overcome it. They are:

Lab: Limitation

Regarding the limitation of Lab most of the teachers opined that the labs

- Don't have adequate facilities.
- Lacked equipment.
- Lack of fund, shelves, time and teachers.

Suggestion

Regarding the suggestion teachers suggested to:

- Provide more equipment,
- Provide financial aid and more facilities.
- Provide subject related CD's and training for making use of the facilities of the lab.

Library

Regarding the limitation of library, teachers reported that there are :

- No sufficient subject related reference books.
- Library is not equipped with proper facilities like shelves, space for reading, librarian.

- Lack contemporary literary pieces.
- No separate room for library
- Lack of financial aid for the purchase of books and other equipment.

Suggestions

Regarding the suggestion most of the teachers opined that they

- Need more reference books,
- Contemporary literary library pieces
- Need modern facilities
- Financial aid for improving library facilities

A few teachers requested for

- Separates room for library.
- Consider aided schools also for the financial aid from the part of the govt., SSA, RMSA.

ICT

Limitation

Regarding the use of ICT the limitations pointed out are:

- lack of sufficient computers
- overcrowded classroom
- Lack of subject related CDs
- lack of proper training for handling ICT
- lack of internet and projector,
- lack of separate room for ICT

Suggestions

Suggestions provided by the teachers are:

- Provide computers for both UP and HS.
- aid for buying computers
- separate smart classroom as well as ICT enabled classrooms
- Equip them with adequate ICT training.
- Provide with subject related CD's and projections.

Display Board

Limitation

Regarding the use of display board, limitations pointed out by teachers are:

- NO display boards.
- Display boards are damaged and not replaced.

Suggestions

Suggestion provided by teachers is:

- provide display board
- Provide financial aid to buy display board.

Magazines

limitation

Considering the availabilities magazines in schools the limitations noted by the teachers are:

- Need of subject specific magazines and publications.
- Need financial aid for buying magazines.
- Provide free periodicals to all govt./aided school.

Club

Limitation

Regarding the functioning of club the limitations noted by teachers are:

- lack of time
- Lack of separate room and space for club
- Lack of proper training to create awareness among the teachers

Suggestions

Suggestions provided by the teachers are:

- Allot separate period for club activities
- Reduce the content and activities in the TB to make the club activities more effective.

Corner

While analysing the limitation of the reading corner in school, the teachers opined that the schools

- Don't have enough space to function reaction corner
- Lack of sufficient books and furniture

From this it can be inferred that the facilities such as lab, library, ICT, display board, periodicals, club and corner are used in schools to some extent for providing learning activities to learners. The limitations pointed out by the teachers are inadequate facilities, insufficient furniture, and lack of reference books, lack of librarians, lack of time to conduct club activities, insufficient space to arrange corners and lack of awareness in teachers. The notable suggestions given by them are allotting separate period for club activities, providing computers for both UP and HS, allotting separates room for library, and providing modern facilities.

Resources other than the text book and the teacher text for ensuring learning outcomes

The responses regarding the resources other than TB and TT to ensure learning out comes were collected and analyzed ,the details are given in table 5.17.

Table 5.17

Resources other than the text book and the teacher text for ensuring learning outcomes

Resources	Percentage
Reading materials prepared by the teacher	76.58
Local resources	74.68
Resource CD (video, audio)	74.05
Pictures	96.20
Tables	89.87
Diagrams	69.62
Reports	62.66
Worksheets	93.04
Materials given by local government and other agencies	58.86
Others (specify)	14.56

From the table 5.17 it is found that a great majority of teachers reported that they use pictures (96.20%) ,Worksheets(93.04%).Majority of teachers (70%-89%) reported that they are using, Reading materials prepared by the teacher,Local resources,Resource

CD (video, audio), Tables. Diagrams are used by 69.62% of teachers, and materials given by local government and other agencies by 58.86%.

Variety of reading materials used by teachers other than teacher book and teacher text for ensuring learning outcomes are local resources, resource CD, tables, Diagrams, reports, and materials given by local government and other agencies.

The Teachers were asked to suggest extra materials other than the enlisted materials in the questionnaire to ensure learning outcomes.

The suggestions given by them are listed below.

Most of the teachers opined that they use magazines, field trips, paper cutting gifts for encouragements, daily news quiz

From the analysis it can be inferred that a number of materials other than TT and TB are used by majority of teachers for ensuring learning outcomes.

Adaptation for CWSN

The mathematics teachers were asked to respond which of the following like TB, TT etc., help them to adapt for CWSN . The responses were collected and tabulated and presented in Table 5.18

Table 5.18
Adaptation for CWSN learners

Materials	Responsespercentage
Text book	46.20
Teacher text	44.30
Infrastructure	39.24
Resource teachers	73.42

It is found from table 5.18 that majority of teachers reported that resource teachers (73.42%) helps them in the adaptation for the CWSN. Text book and teacher text only help for 46.20% and 44.30% of teachers respectively in this regard.

From this it can be inferred that resource teachers mainly provide help in the adaptation of CWSN. Text book and Teacher text in not so helpful in this regard.

Teaching learning resources in the area of arts

The responses regarding the learning resources in the area of arts were collected and analyzed ,the details are given in tables 5.19 .

Table5.19

Teaching learning resources in the area of arts

Statements	Art		
	Great extent(%)	Some extent(%)	Not at all(%)
Slots appropriate for conceptual transaction are provided in the TT	41.77	53.80	4.43
Instructions for framing required resources are provided in TT of different subjects	48.74	48.10	3.16
Suitable tools and materials are in the schools for the given area	17.09	62.66	20.25
Local resources could be made available in this area	19.62	62.03	18.35
TT for this area is effectively used in schools	43.67	51.27	5.06
Activity books are used effectively	47.47	46.20	6.33

Based on the table-5.19 it is found that 53.80% of teachers opined that in the Mathematics text book there are slots appropriate for conceptual transaction for Art education to some extent dimension while 41.77% teachers opined to great extent level. About 49% of teachers reported that instructions for framing necessary resources for art education are there in TT to a great extent level as well as some extent level. About 63% of teachers opined that suitable tools and materials are in the schools for the given area and local resources could be made available in this area to some extent level whereas about 20% teachers opined to great extent level. It is significant to note that about 20% of teachers reported that suitable tools and materials are not present in the schools for the given area local resources are not at all available in the school. It is also found that 51.27% of teachers opined that TT for this area is effectively used in schools to some extent level whereas 43.67% of teachers opined to great extent level. Almost equal percentage (about 47%) of teachers opined that activity books are used effectively to great extent level (47.47% and some extent level (46.20%).

It can be inferred that teaching learning resources in the area of art are present in the only to some extent level.

Analysis regarding the limitation and suggestion for improvement in the area of art, sports, health and work experience.

Art

Limitations

A great majority teachers are of the opinion that there no special teachers to deal with art.

The other limitations suggested are

- Lack of training
- Lack of time
- Lack of financial aid
- Lack of materials
- Opposition from certain religions section.

Suggestions

A great majority of teachers suggested

- Appointing specialized teachers for art
- Provide support from LSG.
- Conduct training programs to equip them to handle art classes.

It can be inferred that teaching learning resources in the area of art are present in the TT only to some extent level. They opined that this is due to the lack of training, time, financial aid and materials. They suggested appointment of specialized teacher for teaching art education in schools and rendering help from local bodies to overcome these limitations.

Teaching learning resources in the area of Sports and Health Education

The responses regarding the learning resources in the area of Sports and Health Education were collected and analyzed,the details are given in tables 5.20.

Table 5.20**Teaching learning resources in the area of Sports and Health Education**

Statements	Sports – health		
	Great extent(%)	Some extent(%)	Not at all (%)
Slots appropriate for conceptual transaction are provided in the TT	39.87	55.70	4.43
Instructions for framing required resources are provided in TT of different subjects	40.50	55.70	3.80
Suitable tools and materials are in the schools for the given area	19.62	73.42	6.96
Local resources could be made available in this area	20.89	61.39	17.72
TT for this area is effectively used in schools	38.61	52.53	8.86
Activity books are used effectively	44.31	48.10	7.59

Based on the table 5.20 it is found that 55.70% of teachers opined that in the Mathematics text book there are slots appropriate for conceptual transaction are provided in the TT Sports and Health to a some extent dimension while 39.87% teachers opined to great extent level. About 55.70% of teachers reported that instructions for framing necessary resources for Sports and Health are there in TT to a some extent level and 40.50% teachers to some extent level. Only 19.62% teachers opined that suitable materials related to Sports and Health are available in the school to great extent while 73.24% reported that resources are available to some extent level. Very few (17.72%) reported that local resources are not at all available in their schools while 61.29% reported it to some extent level. About 53% of teachers reported that they make use of TT for the area to a some extent level while about 40% to some extent level. About 48.10% of teachers reported that they make use of activity book to a some extent level whereas 44.31% teachers opined to great extent level.

It can be inferred that teaching learning resources in the area of sports and health are present in the TT only to some extent level.

Analysis of limitations and qualitative suggestions teachers have made about Sports and health

Limitation

With regard to sports majority of teachers reported that there are

- No physical education teachers to handle sports, teachers
- Lack of sports equipment
- Lack of playground
- Lack of fund
- Lack of time

Suggestions

Suggestions provided by the teachers to solve this limitations are:

- Appointing physical education teachers at the earliest
- Financial aid by the local self-government

Regarding the analysis of health most of the teachers opined that there are :

- No specialized teachers to handle the area 'health'.
- Teachers lacked training to handle the Health Education
- Lack of awareness regarding HE
- Providing nurses/health worker in school
- Providing training and awareness classes to all teachers
- Giving training to teachers in yoga classes.

It can be inferred that teaching learning resources in the area of sports and health are present in the TT only to some extent level. The limitations pointed out are lack of sufficient sports equipment, playground, fund and time. The teachers suggested appointing physical education teachers, providing the service of health worker in school and giving training to teachers to handle health education classes in schools.

Teaching learning resources in the area of Work Experience

The responses regarding the learning resources in the area of Work Experience were collected and analyzed the details are given in tables 5.21.

Table 5.21**Teaching learning resources in the area of Work Experience**

Statements	Work experience		
	Great extent	Some extent	Not at all
Slots appropriate for conceptual transaction are provided in the TT	43.67	52.53	3.80
Instructions for framing required resources are provided in TT of different subjects	47.47	49.37	3.16
Suitable tools and materials are in the schools for the given area	22.78	60.76	16.46
Local resources could be made available in this area	25.95	58.23	15.82
TT for this area is effectively used in schools	41.14	51.27	7.59
Activity books are used effectively	42.41	52.53	5.06

Based on the table 5.21 it is found that 52.53% of teachers opined that in the Mathematics text book there are slots appropriate for conceptual transaction of area related to work experience are provided in the TT to a some extent dimension while 43.67% teachers opined to great extent level. About 49.37% of teachers reported that instructions for framing required resources are provided in TT of different subjects there in TT to a some extent level and 47.47% teachers to some extent level. Only 22.78% teachers opined that suitable materials related to art are available in the school to great extent while 60.67% reported that resources are available to some extent level. Very few (16.46%) reported that suitable materials are not in the schools for the given area.. Very few (15.82%) reported that local resources are not at all available in their schools while 58.23% reported it to some extent level. About 51.27% of teachers reported that they make use of TT for the area to some extent level while 41.14% to great extent level. About 53% of teachers reported that they make use of activity book to some extent level and 43% teachers opined to great extent level.

Analysis of limitations and qualitative suggestions regarding work experience

Teachers reported many limitations in the field of Work Experience in schools. They are:

- Lack of specialized teachers in Work experience in Schools
- Provide raw materials giving training to learners

- Lack of time.

Suggestions pointed by the teachers are:

- Appointing WE teachers
- Allotting fund by the LSG to buy raw materials for WE
- Provide training for all teachers
- Provide nurses /Health worker in school.

It can be inferred that teaching learning resources in the area of work experience are present in the TT only to some extent level. The limitations pointed out by the teachers are lack of teachers who are specially trained in work education in schools and non-availability of raw materials to give training to learners. Teachers opined that we can overcome this by appointing specialized teacher in work experience and by providing financial aid to schools to buy raw materials.

Details of the products of the learning activities

The responses of teachers regarding the details of the products of the learning activities were analyzed, the details are given in table 5.22

Table 5.22

Details of the products of the learning activities

Item	Yes(%)	No (%)
Evaluating of products	96.20	3.80
Encourages learners outstanding products	98.1	1.90
Utilising the possibility of reusing products	95.57	4.43
Conducts exhibition of learners products	6.96	1.27

Table 5-22 reveals that regarding the products of the learning activities a great majority of teachers (greater than 90%) reported that they evaluated the products, encourage the learners outstanding products and utilized the possibility of re-using the products. Only very few (6.96%) of teachers opined that they conducted exhibition of the products.

III. LEARNING PROCESS

The teachers were asked to mark their responses regarding the various learning processes that take place inside the classrooms. The responses of the Teachers, in this section, for the Quantitative items were recorded as Yes / No, and Always/Sometimes/Not at all. The Qualitative responses were noted and listed the responses were collected and analyzed. The results are given under appropriate heads.

Difficulty experienced while planning learning activities in the classrooms

The responses obtained from mathematics teachers were analyzed and the result showing the percentage of teachers who responded is given in Table 5.23.

Table 5.23
Difficulty experienced while planning learning activities

Statement	Responses in Percentage	
	Yes	No
Difficulty experienced while planning learning activities	71.92	28.08

It is seen from the table 5.23 that a majority of Mathematics teachers (71.92%) of Class VII reported that they faced difficulties while planning the learning activities whereas 28.08% mentioned that they did not face any difficulty.

From this, it can be inferred that the *Mathematics teachers (71.92%) of Class VII faced difficulties while planning the learning activities.*

Thrust areas where difficulty is experienced while planning learning activities

The teachers, who indicated that they experienced difficulties while planning the learning activities, were asked to indicate their responses regarding the thrust areas where difficulty is experienced while planning learning activities. The responses were analyzed and the results are given in Table 5.24.

Table5.24***Thrust areas where difficulty is experienced while planning learning activities***

Thrust area	Responses in Percentage
Learning Outcomes	15.82
Integrating arts, sports, health and work experience	58.86
Life skills	21.52
Utilising learning resources	14.56
Slots for ICT	31.65
Community bound activities	23.42
Values/attitudes	14.56
Learning of the different levels of learners	51.90
Continuous evaluation	22.78
Areas to develop social commitment	20.25

The thrust areas where the Mathematics Teachers of Class VII faced difficulties are ‘Integrating arts, sports, health and work experience’ (58.86%), ‘Learning of the different levels of learners’ (51.90%), Slots for ICT (31.65%), Community bound activities (23.42%), Continuous evaluation (22.78%), Life Skills (21.52%), Areas to develop social commitment (20.25%), Learning Outcomes (15.82%), Utilising learning resources (14.56%) and Values/ Attitudes (14.56%).

Therefore it can be inferred that although the Mathematics Teachers experienced difficulty in various thrust areas, *‘Integrating arts, sports, health and work experience’* and *‘Learning of the different levels of learners’*, are two thrust areas that posed difficulty to majority of Mathematics Teachers who indicated that they experienced difficulties while planning the learning activities.

Analysis based on the remedial measures suggested by the teachers to overcome difficulties experienced by them in the various areas mentioned above. The suggestions given by them are

- *Integrating arts, sports, health and work experience:*
- Expert teachers in the field of arts, sports and work experience need to be appointed.
- Some are of the view that the field of arts, sports, health and work experience can be enriched by relating with Mathematics.
- More activities related to arts and sports need to be included in the teacher book and teacher text.

- Awareness classes should be provided in the field of health.
 - Necessary vaccination should also be provided to the learners.
 - More awareness in the field of extracurricular activities.
 - It is essential to nurture the feeling that the extracurricular activities are essential for promotion.
- a. *Life skills:*
- The skills and attitudes to be attained by the learners are to be fixed earlier and required materials should be provided.
 - There should be more situations for nurturing the life skills.
 - More life-oriented activities should be included.
- b. *Utilising learning resources:*
- c. More learning instruments should be provided.
- d. *Slots for ICT:*
- Separate laptop should be provided to each teacher.
 - The class rooms should be converted to smart class rooms and its utilization should be ensured.
 - All the ICT facilities including projectors, resource CDs etc. should be provided to schools.
 - There should also be provision for repairing the damaged ICT equipment.
 - Internet facilities should be provided in class rooms.
 - More ICT activities should be included in the text book.
 - Effective training should be provided in ICT.
 - The ICT possibilities should be enhanced by providing suitable activities.
 - Smart class rooms should be started in aided schools by government aid..
- Community bound activities:*
- Support of parents is required for society related activities.
 - There is lack of time for conducting society related activities.
 - Local differences should be considered while framing these activities..
- e. *Values/attitudes:*
- f. *Learning of the different levels of learners:*
- g. More activities and separate time should be included for the learning of differently abled learners.

- h. More facilities should be provided for identifying the problems of the differently abled.
- i. Special schools are essential for the instruction of the differently abled.
- j. The content of the text book should be adapted so as to be suitable for the mental state of the learners.
- k. More care should be given to the learning of the differently abled.
- l. Teachers having expertise in handling the differently abled should be appointed.
- m. Special training for handling the differently abled should be provided..
- n. More simple and attractive activities in the form of work sheets should be provided for differently abled in the teacher text.
- o. Separate text book matching the mental state of these learners should be provided.
- p. *Continuous evaluation:*
 - q. CE should be recorded in a term-wise manner.
 - r. Work sheets should be provided for CE.
- s. Other difficulties experienced by them were:-
 - t. Consideration should be given to the mother tongue.

Ensuring the development of process skills in learners through learning process

The teachers are asked to mark their Responses regarding ensuring the development of process skills in learners through learning process. The responses were analyzed and the result showing the percentage of teachers who opined regarding the item is given in Table 5.25

Table 5.25

Ensuring the development of process skills in learners

Statement	Responses in Percentage		
	Always	Sometimes	Not at all
Ensure the development of process skills in learners through learning process	14.56	79.75	5.70

It is evident from the table-5.25 that majority of Mathematics teachers (79.75%) of Class VII reported that they sometimes ensured the development of Process skills in the learners through learning process, whereas only 14.56% could always ensue it in the class. 5.70% of Mathematics Teachers responded that they were not at all able to ensure the development of Process skills in the learners through the learning process.

From this, it can be inferred that although majority of Mathematics teachers of Class VII (79.75%) sometimes ensured the development of Process skills in the learners through learning process, only 14.56% could always ensue it in the class. Few teachers (5.70%) not at all ensured the development of process skills in the learners through the learning process.

Planning and implementing learning activities to attain conceptual clarity through multi-sensory experiences

The teachers are asked to mark their Responses regarding planning and implementing learning activities to attain conceptual clarity through multi-sensory experiences. The responses obtained from the Mathematics teachers were analyzed and the result is given in Table5. 26

Table 5.26

Planning and implementing learning activities

Statement	Responses in Percentage	
	Yes	No
Plan and implement learning activities to attain conceptual clarity through multi-sensory experiences	82.28	17.72

It is seen from the table 5.26that a great majority of Mathematics teachers (82.28%) of Class VII reported that they planned and implemented learning activities to attain conceptual clarity through multi-sensory experiences, whereas 17.72% did not do so.

From this, it can be inferred that Majority of Mathematics Teachers of Class VII planned and implemented learning activities to attain conceptual clarity through multi-sensory experiences. However 17.72% of the Teachers did not do so.

Appropriateness of the curriculum in enabling learners to apply the knowledge

The teachers are asked to mark their responses regarding appropriateness of the curriculum in enabling learners to apply the knowledge acquired through the learning process in their daily life. The responses obtained from the Mathematics teachers were analyzed and the result showing the percentage of teachers who responded is given in Table 5.27

Table 5.27

Appropriateness of the curriculum in enabling learners to apply the knowledge acquired through learning process in their daily life

Statement	Responses in Percentage	
	Yes	No
Curriculum is appropriate for enabling learners to apply the knowledge acquired through learning process in their daily life	88.61	11.39

It is evident from the table 5.27 a great majority of Mathematics teachers (88.61%) of Class VII reported that curriculum is appropriate for enabling learners to apply the knowledge acquired through learning process in their daily life, whereas 11.39% did not agree to the statement.

From this, it can be inferred that *although the curriculum is considered appropriate for enabling learners to apply the knowledge acquired through learning process in their daily life by majority of Mathematics Teachers of Class VII, 11.39% of them considered otherwise.*

Making use of the learning strategies appropriate to the content

The teachers are asked to mark their responses regarding making use of the learning strategies appropriate to the content. The responses obtained from the Mathematics teachers were analyzed and the result is given in Table 5.28

Table 5.28

Making use of the learning strategies appropriate to the content

Statement	Responses in Percentage	
	Yes	No
Make use of the learning strategies appropriate to the content	79.11	20.89

The table 5.28 shows that majority of Mathematics teachers (79.11%) of Class VII reported that they made use of the learning strategies appropriate to the content, whereas more than one-fifth of them (20.89%) did not.

From this, it can be inferred that *majority of Mathematics Teachers of Class VII made use of learning strategies appropriate to the content. However more than one-fifth of them of Mathematics Teachers did not*

Difficulties experienced while making use of learning strategies

The teachers, who indicated that they experienced difficulties while making use of learning strategies that are appropriate to the content, were asked to indicate their responses regarding the strategies that pose difficulties to them. The responses were analyzed and the results are given in Table 5.29

Table5. 29
Difficulties experienced while making use of
Learning strategies that are appropriate to the content

Strategies that pose difficulty	Responses in Percentage
a. Investigative learning	18.99
b. Method of concept acquisition	2.53
c. Inductive thinking	1.27
d. Meta cognition	1.27
e. Co-operative leaning	1.27
f. Collaborative learning	1.27
g. Critical thinking	0.63

The learning strategies that were found difficult by the Mathematics Teachers of Class VII to use according to the content, in the descending order of difficulty were Investigative learning (18.99%), Method of concept acquisition (2.53%), Inductive thinking (1.27%), Meta cognition (1.27%), Co-operative leaning (1.27%), Collaborative learning (1.27%) and Critical thinking (0.63%).

For Mathematics Teachers, the learning strategies - Investigative learning was the most difficult learning strategy to use appropriate to the content.

Some teachers in Mathematics also suggested that they feel difficulty in adopting the following:-

- Difficulty in satisfying learners of different levels

Reasons for experiencing difficulty while making use of appropriate learning strategies

The teachers were asked to express their responses regarding the reasons for experiencing difficulty while making use of appropriate learning strategies. The responses were analyzed and the results are given in Table 5.30

Table5.30

Reasons for experiencing difficulty while making use of appropriate learning strategies

Reason	Responses in Percentage
Lack of time	82.28
Practical difficulty	28.48
Lack of facilities/materials	36.71
Lack of training	12.66

The reasons that were attributed by the Mathematics Teachers for experiencing difficulty while making use of appropriate learning strategies as evident from the table, were Lack of time (82.28%), Lack of facilities/materials (36.71%), Practical difficulty (28.48%) and Lack of Training (12.66%).

Therefore it can be inferred that '*Lack of time*' and '*Lack of facilities/materials*' were the major reasons that were mentioned by the Mathematics Teachers of Class VII who indicated that they faced difficulty while making use of appropriate learning strategies.

Analysis regarding the reasons for experiencing difficulty in utilising appropriate learning strategies:

Teachers also reported the following reasons for experiencing difficulty in utilising appropriate learning strategies:

- The conventional period system
- Lack of adaptation for differently abled
- Lack of interest of learners and parents
- Lack of work sheets

Planning and implementing learning activities to overcome the constraints of slow learners

The teachers are asked to mark their responses regarding planning and implementing learning activities to overcome the constraints of slow learners. The responses were analyzed and the result is given in Table 5.31

Table 5.31

Planning and Implementing learning activities to overcome the constraints of slow learners

Statement	Responses in Percentage	
	Yes	No
Plan and Implement learning activities to overcome the constraints of slow learners	39.87	60.13

As seen from the table 5.31, majority of Mathematics Teachers of Class VII (60.13%) could not plan and conduct the learning activities to overcome the limitations of the slow learners, whereas only 39.87% were able to deal with the slow learners effectively.

Hence it can be inferred that *Majority of Mathematics Teachers of Class VII did not plan and implement learning activities to overcome the constraints of slow learners.*

Reasons for experiencing difficulty while planning and implementing learning activities to overcome the constraints of slow learners

The teachers, who indicated that they experienced difficulties while planning and implementing learning activities to overcome the constraints of slow learners, were asked to indicate their responses regarding the difficulties they experienced. The responses were analyzed and the results showing the percentage of teachers, who marked the various difficulties, are given in Table 5.32.

Table 5.32.

Reasons for experiencing difficulty while planning and implementing learning activities to overcome the constraints of slow learners

Reason for Difficulties	Responses in Percentage
To plan and implement the activities for different levels of learners	56.33
Remedial Teaching	9.49
Lack of specially prepared learning materials	20.89
Lack of time	22.15

The reasons reported by the Mathematics Teachers of Class VII for difficulties in planning and implementing learning activities to overcome the constraints of slow learners were ‘difficulties in planning and implementing activities for different levels of learners (56.33%),Lack of time (22.15%), Lack of specially prepared learning materials (20.89%), and Difficulties in remedial teaching (9.49%).

Therefore it can be inferred that *‘planning and implementing activities for different levels of learners’ and ‘Lack of time’were the major reasons that were mentioned by Mathematics Teachers of Class VII who indicated that they faced difficulty while planning and implementing learning activities to overcome the constraints of slow learners.*

The other difficulties in planning activities to overcome the constraints of slow learners are Over-crowded classrooms, Lack of awareness in child psychology, Lack of participation in class, Lack of learning activities in teacher text, Lack of interest of learners and parents.

3.11 Ensuring attainment of learning outcomes in different levels of learners

The teachers are asked to mark their responses regarding ensuring attainment of learning outcomes in different levels of learners. The responses obtained from the Mathematics teachers were analyzed and the result s is given in Table 5.33.

Table 5.33

Ensuring attainment of learning outcomes in different levels of learners

Statement	Responses in Percentage	
	Yes	No
Ensure attainment of learning outcomes in different levels of learners	32.28	67.72

As evident from the table5.33 more than two-third of the Mathematics Teachers of Class VII (67.72%) did not ensure the attainment of learning outcomes in different levels of learners, whereas only 32.28% did so.

Hence it can be inferred that *Majority of the Mathematics Teachers of Class VII did not ensure the attainment of learning outcomes in different levels of learners.*

Analysis of responses regarding difficulties in ensuring learning outcomes satisfactorily in different levels of learners.

Teachers in Mathematics also reported the following difficulties in ensuring learning outcomes satisfactorily in different levels of learners were analyzed and they are

- Lack of time and special training to tackle the differently abled learners.
- All the lessons have to be completed within a stipulated period of time.
- Learners cannot concentrate on their activities due to lack of interest and previous knowledge.
- These learners are also not cooperative. Hence, they cannot be cared continuously.
- The school environment is not suitable to them.
- Special activities are essential to engage them. These should be included in the learning process.
- Difficult to plan and implement activities suitable to them.
- Special modules and appointment of specialist teachers for them.
- Repeated absenteeism of these learners is also creating difficulty. Thus, all the learning outcomes cannot be attained properly but still the teachers are trying to instil necessary life skills.
- Very difficult to manage them in the classroom.
- Increase in the number of such learners is another issue.
- Difficulty in providing individual care, special learning materials to handle the differently abled.
- Cannot go deeper into the problems of these learners.
- The low standard of these learners is another serious issue.
- There is also high heterogeneity regarding their standards.
- Many of them have no awareness regarding fundamental mathematical operations. Hence these learners cannot be brought to the good level of achievement.
- They cannot undertake most of the given activities.
- There is lack of self-motivated activities for the below average learners.
- They themselves and the parents are lacking awareness of the problems, needs and psychology of the differently abled.
- There is no enough support from the side of parents.
- There is lack of infrastructure facilities and trained/resource teachers.

- Separate text book for these learners. They are to be provided with special time, care, processes and learning materials.

Implementation of learning activities to enrich the abilities of gifted learners

The teachers are asked to mark their responses regarding implementation of learning activities to enrich the abilities of gifted learners. The responses obtained from the Mathematics teachers were analyzed and the result is given in Table 5.34

Table 5.34

Implementation of learning activities to enrich the abilities of gifted learners

Statement	Responses in Percentage	
	Yes	No
Implement learning activities to enrich the abilities of gifted learners	79.11	20.89

Majority of Mathematics Teachers of Class VII (79.11%) implemented learning activities to enrich the abilities of gifted learners, whereas 20.89% could not.

Therefore it can be inferred that *although majority of Mathematics Teachers implemented learning activities to enrich the abilities of gifted learners, 20.89% of them did not do so.*

Reasons for experiencing difficulties in the implementation of learning activities to enrich the abilities of gifted learners

The teachers, who indicated that they experienced difficulties in the implementation of learning activities to enrich the abilities of gifted learners, were asked to indicate their responses regarding the difficulties they had. The responses were analyzed and the results are given in Table 5.35

Table 5.35

Reasons for Difficulties in the Implementation of learning activities to enrich the abilities of gifted learners

Reason for Difficulties	Responses in Percentage
Difficulty in planning challenging learning activities	18.99
Lack of suitable learning resources	6.96
Lack of time	1.27
Lack of training	0.00

The reasons that were given by the Mathematics Teachers of Class VII for not being able to implement learning activities to enrich the abilities of gifted learners effectively were ‘Difficulty in planning challenging learning activities’ (18.99%), Lack of suitable learning resources (6.96%) and Lack of time (1.27%),

Therefore it can be inferred that *Difficulty in planning challenging learning activities* was the major reason mentioned by Mathematics Teachers of Class VII who indicated that they faced difficulties in the Implementation of learning activities to enrich the abilities of gifted learner.

Analysis based on remedial measures for overcoming difficulties in enriching the abilities of gifted learners

Remedial measures suggested by Mathematics Teachers for tackling the difficulties in enriching the abilities of gifted learners are listed below:-

- Decrease content
- Include more activities for the gifted learners
- Avoid the loss of working days
- Reduce the number of extracurricular activities
- Minimize non-teaching works of the teachers
- Provide workbooks in the BRC level
- Include special activities suitable for the gifted in the lessons

3.14 Application of suitable learning strategies to ensure maximum participation of all learners

The teachers were asked to mark their responses regarding applying suitable learning strategies to ensure maximum participation of all learners. The responses obtained from Mathematics teachers analyzed and the result showing the percentage of teachers who opined regarding the item is given in Table 5.36.

Table5.36

Application of suitable learning strategies to ensure maximum participation of all learners

Statement	Responses in Percentage		
	Always	Sometimes	Not at all
Apply suitable learning strategies to ensure maximum participation of all learners	15.19	82.28	2.53

The table suggested that 5.36 majority of Mathematics Teachers of Class VII (82.28%) sometimes applied suitable learning strategies to ensure the participation of all learners whereas 15.19% were always able to apply them. 2.53% were not at all able to apply the learning strategies which ensured the participation of all learners.

Therefore it can be inferred that *although a majority of Mathematics Teachers of Class VII sometimes ensured the maximum participation of all learners, only 15.19% always ensured full learner participation.*

3.15 Transaction of the content in a learner friendly manner

The teachers were asked to mark their responses regarding transaction of the content in a learner friendly manner. The result showing the percentage of teachers who opined regarding the item is given in Table 5.37

Table 5.37

Transaction of the content in a learner friendly manner

Statement	Responses in Percentage		
	Always	Sometimes	Not at all
Transact the content in a learner friendly manner	48.10	50.00	1.90

Half of the Mathematics Teachers of Class VII (50%) sometimes transacted the content in a learner friendly manner, whereas, whereas 48.10% always transacted the content in a learner centered way. 1.90% of the teachers were not learner friendly at all.

Hence it can be inferred that *half of Mathematics Teachers of Class VII sometimes transacted the content in a learner friendly manner, whereas 48.10%% were always learner friendly in content transaction. It is startling to note that that few Mathematics Teachers were not learner friendly at all (1.90%) in content transaction.*

IV- Evaluation

Clarity in continuous Evaluation

The responses from teachers based on clarity in Continuous Evaluation (CE) were collected and analyzed. The details are given in table5.38

Table5.38

Clarity in Continuous Evaluation Strategies

Aspect	Responses in Percentage	
	Yes	No
Clarity incontinuous assessment	89.24	10.76

From the table 5.38 it is found that majority of teachers in Mathematics (89.24%) reported that they got a clearidea about continuous Evaluation. At the same time 10.76% of teachers responded negatively.

Even though majority of teachers got a clear idea about continuous Evaluation, about 10.76% teachers did not get the clarity.

Areas which need clarity for teachers

The data based on areas which need clarity were collected from teachers who didn't get a clear idea about CE(10.74%)and were subjected to analysis. The details are given in table.5.39

Table.5.39

Areas which need clarity

Area	Responses in Percentage
Assessment of Learning Process	15.19
Portfolio Assessment	13.80
Unit Assessment	11.27
Recording	10.63

Based on Table 5.39 very few teachers in Mathematics (15.19%) reported that they need clarity in process evaluation. It is followed by Portfolio Assessment, Unit Assessment and Recording.

However majority of teachers got a clear idea about continuous assessment, simultaneously a significant number of teachers need clarity in Continuous Evaluation.

Suggestions put forward by teachers for improvement regarding the areas of continuous evaluation strategies are:

Process evaluation-

- Clarity in directions
- Activity for differently abled learners

Port folio

- Prepare worksheet at cluster and grade them

Unit evaluation

- Give more training
- Need more time

Grading

- Give more training
- Need more time

Recording

- Marking of each unit of concerned subject
- Give direction at the time of school opening
- Clarity in directions
- Time table and time allotment to mark different areas of child
- Reduce the number of learners
- Give clear ideas to parents at class PTA in order to evaluate suitable work of their wards

However majority of teachers got a clear idea about continuous evaluation, simultaneously a significant number of teachers need clarity in Continuous Evaluation in assessment of learning process and portfolio assessment. Suggestions put forward by teachers for improvement regarding the areas of continuous evaluation strategies are needed

of more planning, providing suitable worksheet for lessons and need of more clarity in recording

Continuous Evaluation to ensure learning and to provide adequate support to learners

The data based on ability to carry out CE to ensure learning and to provide adequate support to learners were collected from teachers and were subjected to analysis. The details are given in table 5.40

Table 5.40

Continuous Evaluation to ensure learning and to provide adequate support to learners

Aspect	Responses in Percentage	
	Yes	No
Ability to ensure learning and to provide support to learners through CE	59.49	40.51

From the table 5.40 it is found that teachers in Mathematics (59.49%) reported that they are able to ensure learning and to give support to the learners while carrying out CE. At the same time 40.51% teachers reported that they couldn't.

From the analysis it is clear that 40.51% of teachers are not able to ensure learning and to provide support to learners through CE.

Practical difficulties encountered while carrying out Continuous Evaluation

The data based on ability to carry out CE to ensure learning and to provide adequate support to learners were collected from teachers who are faced practical difficulties and were subjected to analysis. The details are given in table 5.41

Table:5.41

Responses of teachers regarding practical difficulties to ensure learning and providing adequate support to learners

Area	Responses in Percentage
Lack of awareness	32.91
Lack of time	21.52
Complexity of learning process	11.39
Overcrowded class rooms	12.66

Analysis of table 5.41 revealed that 32.91% teachers reported that Lack of awareness in CE was their major practical difficulty to ensure learning and providing support to learners while carrying out CE. The other difficulties reported are: Lack of time, Complexity of learning process and Overcrowded class rooms.

The above mentioned findings highlight the need for making necessary arrangements to overcome practical difficulties likely to be encountered while carrying out CE

Analysis of responses of teachers based on difficulties encountered in continuous evaluation

- Lack of support of learners and parents
- Lack of time

Carrying out the Learning process and Evaluation simultaneously

The data based on responses of teachers regarding the simultaneous taking place of learning process and evaluation were collected and analyzed. The details are given in table.5.42

Table.5.42

Carrying out the Learning process and Evaluation simultaneously

Aspects	Responses in Percentage	
	Yes	No
Carrying out the Learning process and Evaluation simultaneously	74.68	25.32

From the table 5.42 it is found that that majority of teachers in Mathematics (74.68%) reported that learning process and the continuous evaluation process takes place simultaneously while 25.32% of teachers reported that that learning process and the continuous evaluation process is not taking place simultaneously.

It is clear that even though majority of teachers are able to carry out learning process and evaluation simultaneously a significant number of teachers are not able to undertake the task successfully.

Practical difficulties encountered while carrying out learning process and evaluation simultaneously

The data based on responses of teachers regarding the practical difficulties encountered for simultaneous taking place of learning process and evaluation were collected and analyzed. The details are given in table 5.43

Table 5.43

Practical difficulties in learning process and evaluation simultaneously

Practical difficulties	Responses in Percentage
Lack of proper planning	27.85
Lack of awareness about suitable strategies	3.80
To give more emphasis to learning process than evaluation	4.43

Table 5.43 shows that 27.85% of teachers responded that the difficulty to carry out learning process and evaluation simultaneously is due to lack of proper planning. The other difficulties reported are: lack of awareness about suitable strategies and giving more emphasis to learning process than evaluation.

Analysis of responses of teachers based on Practical difficulties encountered in learning process and evaluation

- Lack of time
- Will take more time for marking
- Lack of interest
- Not doing homework/activities
- Aptitude of learners

Specificity of Indicators related to different areas of evaluation

The data based on responses of teachers regarding specificity of indicators related to different areas of evaluation were collected and analyzed. The details are given in table 5.44

Table 5.44

Specificity of Indicators related to different areas of evaluation

Aspects	Responses in Percentage	
	Yes	No
Specificity of indicators related to different areas of evaluation	62.03	39.97

From the table 5.44 it is found that 62.03% teachers in Mathematics reported that the indicators given to the areas for evaluation are specific while 39.37% teachers reported as not specific.

It is significant to note that a significant percentage of teachers (39.37%) of teachers reported that the indicators related to different areas of evaluation are not specific.

Area which needs clarity for indicators

The data based on areas which need clarity for indicators were collected from teachers who didn't get a clear idea about it (39.97%) and were subjected to analysis. The details are given in table 5. 45

Table 5.45

Area which needs clarity for indicators

Area	Responses in Percentage
Assessment of Learning Process	2.61
Portfolio Assessment	1.31
Unit Assessment	5.23

From the table 5.45 it is found that a very few teachers in Mathematics (5.23%) reported that they need clarity in Unit Assessment. A very few teachers need clarity of indicators in Assessment of Learning Process and Portfolio Assessment.

Problems faced by teachers during the assessment of learning process

The data based on responses of teachers regarding problems faced by teachers during the assessment of learning process were collected and analyzed. The details are given in table 5.46

Table 5.46

Problems faced by teachers during the assessment of learning process

Area	Responses in Percentage
Overcrowded classroom	56.96
Lack of suitable criteria	10.76
Lack of time	54.43
Lack of awareness of teachers	4.43

The table 5.46 revealed that 56.96% o teachers in Mathematics reported that the mainproblem faced by them during assessment of learning process is Overcrowded classrooms and 54. 43% teachers reported lack of time as their main problem. While a few percentage of teachers(below 10%) faced problems due to lack of suitable criteriaand lack of awareness.

Overcrowded classroom and lack of time are the difficulties experienced during the assessment of learning process reported by more than half of the teachers. The other difficulties reported are lack of suitable criteria for assessment and lack of awareness regarding assessment of learning process.

Provision for self-evaluation and peer evaluation

The data based on responses of teachers regarding providing opportunities for Self-evaluation and Peer evaluation were collected and analyzed.The details are given in table 5.47

Table5.47

Provision forSelf-evaluation and Peer evaluation

Aspects	Responses in Percentage	
	Yes	No
Self-evaluation	93.04	6.96
Peer Evaluation	87.97	12.03

From the table 5.47 it is clear that a great majority teachers(93.04%)reported that they provide opportunitiesfor self-evaluation anda majority of teachers (87.97%)

For peer evaluation. But it is significant to note that 12.03% of teachers are not all providing any opportunity for peer evaluation and6.96% for self-evaluation.

Even though majority of teachers are providing opportunities for peer evaluation and self-evaluation, a significant number of teachers are not providing it.

Preparation of indicators for Evaluation

The data based on responses of teachers regarding preparation of indicators for evaluation were collected and analyzed. The details are given in table 5.48

Table 5.48

Preparation of indicators for Evaluation

Area	Responses in Percentage
Prepared by Teacher	67.72
Prepared by learners themselves	11.98
Derives from classroom discussion	36.71

The table 5.48 revealed that about 67.72% of teachers in Mathematics reported that they themselves prepare indicators for evaluation, while 36.71% of teachers reported derive indicators for evaluation by classroom discussion, whereas a few teachers (below 12%) reported that learners prepare indicators,

It is found that majority of teachers prepare indicators by themselves. It is also significant to note that majority of teachers are not concerned with the preparation of indicators by learners whereas 36.71% derives it from classroom discussion.

Provision of ample opportunity for learners to present their products related to self- evaluation and peer evaluation

The data based on responses of teachers regarding Provision of ample opportunity to learners to present their products related to self-assessment and peer assessment. The details are given in table 5.49

Table 5.49

Opportunity to learners to present their products related to self- evaluation

Aspects	Responses in Percentage	
	Yes	No
Provision of ample opportunity to learners to present their products related to self-assessment and peer assessment	89.87	10.13

From the table 5.49 it is found that majority of teachers in Mathematics (89.87%) reported that they provide ample opportunity for learners to present their products related to self-evaluation and peer evaluation and 10.13% of teachers are not providing such opportunities.

From the analysis it is clear that even though majority of teachers in Mathematics(89.87%) are providing ample opportunity for learners to present their products related to self-evaluation and peer evaluation a significant number of teachers are not providing such opportunities.

Suitable changes made in the classroom process considering the learners' evaluation

The data based on responses of teachers regarding suitable changes in the classroom process considering the learners' assessment. The details are given in table 5.50

Table 5.50

Necessary Changes in the classroom process

Aspect	Responses in Percentage	
	Yes	No
Suitable changes in the classroom process considering the learners' assessment	86.08	13.92

From the table 5.50 it is found that majority of teachers in Mathematics(86.08%) reported that they make necessary changes in the classroom process considering the learners' assessment while 13.92% of teachers are not making any necessary changes.

Changes incorporated for student evaluation

The teachers who made changes in the classroom process considering the evaluation of learners pointed out some changes they have made for the last one year, they are:

- Group activities and evaluation
- Self-evaluation
- Peer tutoring
- Given activities based on level of learners
- Related each unit with environment of learners

- Given questions based on level of learners
- Special training to backward learners
- Simplifying problem solving questions
- Making plans while teaching making of triangles
- More activities and questions than in the text book are given
- Simplified learning process
- Brilliant learners helped the backward learners in group activities
- Have done more problems
- Conducted unit test weekly and seek in the co-operation of parents
- Given special activities to backward learners
- Given importance to unit test
- Planning activities based on previous knowledge
- Given preference to differently abled learners
- Repetition of activities
- Remedial teaching to backward learners
- Fixing alphabets
- Given activities to develop mathematical skill
- Fixed time in between 9:30 – 10 am to read and 1:30 – 2 pm
- Remedial teaching according to level of learners
- Open classroom
- Connecting previous knowledge to new knowledge
- Given more activities
- Coloring puzzles
- Remedial teaching by brilliant learners
- Group activities including all level of learners
- Given more time and continuous activities to backward learners
- Use graph book for Pythagoras theorem
- Usage of ICT
- Preparation of questions by learners
- Seeking questions by sharing different level questions
- Improvisation
- Classes during holidays

- Access the service of different organization to backward learners particularly on Fridays
- Improvisation by talented persons
- More time for classroom activities
- Repeated questions
- Questionnaire
- Assignments
- Home work
- Projects
- Quiz
- Seminars
- Conducted mathematical drama competitions
- By hearing tables
- Changes in planning and strategies
- Identified easy ways for Mathematics
- Peer evaluation

Considering the learners' evaluation, 13.92% of teachers are not making necessary changes. The necessary changes incorporated are Given activities based on level of learners, Given questions based on level of learners, Simplifying problem solving questions, Peer tutoring, Self-evaluation, Group activities, Identified easy ways for Mathematics and Remedial teaching to backward learners.

Tools / techniques while using in unit wise evaluation

The data based on responses of teachers regarding the use of Tools / techniques used for unit wise evaluation were collected and analyzed. The details are given in table 5.51

Table 5.51

Responses of teachers regarding Tools / techniques for evaluation

Area	Percentage
Quiz	82.28
Open book test	22.15
Class test	68.99

The table 5.51 revealed that majority of teachers (82.28) reported that they use Quiz as their tools / techniques for unitevaluation. It is followed by class test (68.99%). Open book test was used by 22.15%.

Techniques and strategies for unit evaluation

- Work sheet
- Project
- Seminar
- Debate
- Assignments
- ICT
- Portfolio
- Building activities
- Story, poem, comprehension
- Improvisation
- Group competitions
- Parallel activities
- Self-preparation of questions
- Preparing questions

It is revealed that quiz and class tests are found to be the most popular tools used for unit evaluation. Along with open text book teachers use .worksheets, projects, seminars, building activities and improvisationsfor unit evaluation

Records considered for continuous evaluation

The data based on responses of teachers regarding the records they consider for CE.The details are given in table 5.52

Table 5.52

Records considered for continuous evaluation

Area	Percentage
Note book	93.67
Worksheet	82.28
Writings	58.86
Short notes	55.70
Project/seminar reports	70.89
Answer sheets of unit wise assessment	72.15

Table 5.52 revealed that a great majority of teachers in Mathematics (93.67%) reported that they consider notebook for continuous evaluation. Majority of teachers (82.28%) reported that the use worksheets. It is followed by Answer sheets of unit wise assessment(72.15%) and Project/seminar reports (70.89).But 58.86% teachers used writings and 55.70% teachers used short notes.

.Apart from the above said records teachers use some other records for continuous evaluation. They are:

- Involvement of learners in classroom activities
- Involvement in group activities
- Sharing of concepts
- Skill in expressing ideas
- Building blocks
- ICT
- Portfolio
- Club
- Building activities
- Work experience in arts and sports
- Responses
- Charts
- Quiz
- Assignments
- Experimental notes
- Projects
- Class preparations
- Models
- Mathematics dictionary
- Use of teaching aids
- Preparation of teaching aids
- Products, collections, interfaces

Teachers in Mathematics consider notebook, worksheet, Answer sheets of unit wise assessment, Project/seminar reports, Writings, and Short notes for unit evaluation, among

which notebook is the most widely used record. Apart from these they also use Charts, Experimental notes, Projects, Class preparations, Models, Mathematics dictionary , ,Preparation and Use of teaching aids, Products and collections for unit evaluation

Feedback based on continuous evaluation

The data based on responses of teachers regarding the feedback based on continuous evaluation. The details are given in table 5.53

Table 5.53

Feedback based on continuous evaluation

Aspect	Responses in Percentage	
	Yes	No
For learners	95.57	4.43
For parents	79.11	20.89

From the table-5.53 it is revealed that a great majority of teachers (95.57%) reported that they provide feedback based on continuous assessment and 79.11% teachers provide feedback to parents. It is significant to note that 4.43% of teachers are not giving feedback to learners and 20.89% not to parents.

From the analysis it is found that even though a great majority (95.57%) of teachers are giving feedback based on CE to learners and majority of teachers (79.11%) to parents. A significant number of teachers are not providing feedback to parents and learners. But it is serious to consider this since feedback to learners is very important in learning process.

Provision for remedial instruction based on feedback from Continuous Evaluation

The data based on responses of teachers regarding remedial teaching based on continuous evaluation. The details are given in table 5.53

Table 5.53

Remedial teaching based on continuous evaluation

Aspect	Responses in Percentage	
	Yes	No
Provision for remedial instruction based on feedback from Continuous Evaluation	84.18	15.82

Table-5.53 revealed that majority of teachers (84.18%) in Mathematics reported that they were conducting remedial teaching based on the feedback obtained from continuous evaluation for learners, while 15.82% of teachers are not providing any remedial teaching based on continuous evaluation.

It is found that *even though majority of teachers (84.18%) in Mathematics are conducting remedial teaching based on the feedback obtained from continuous evaluation for learners, a significant number of teachers are not taking any remedial measures based on continuous evaluation.*

Methods/Strategies adopted for remedial instructions

The data based on responses of teachers regarding the Strategies chosen for remedial teaching. The details are given in table 5.54

Table 5.54

Methods/Strategies for remedial teaching

Area	Percentage
Changing the process	56.96
Giving support	44.94
Peer tutoring	39.87
follow-up activities	43.04

From the table 5.54 it is found that 56.96% of teachers responded that they Change the ongoing process whereas 44.94% teachers give support to learners, 43.04% teachers provide adequate follow up activities and 39.87% adopted peer tutoring

Other methods adopted for remedial teaching are:

- Worksheets
- Video aid
- Starting with simple question
- Learning by doing
- Learning by writing answers
- Gives more time
- Help of parents
- Using gifted learners

It is clear that remedial instruction is provided by changing the process, giving follow up activities and peer tutoring by about less than half of the teachers. The other methods reported by teachers for remedial teaching are providing worksheets, providing extra time and making use of gifted learners

Accurate recording of continuous evaluation

The data based on responses of teachers regarding the accurate recording of continuous evaluation were collected and analyzed . The details are given in table 5.55

Table 5.55

Accurate recording of continuous evaluation

Aspect	Responses in Percentage	
	Yes	No
Recording of continuous evaluation	61.39	38.61

From the table 5.55 it is found that 61.39% of teachers reported that they were making accurate record about the details of the continuous Evaluation. But it is very important to note that 38.61% of teachers are not.

Practical difficulties in recording continuous evaluation

The teachers who are not recording continuous evaluation accurately opined that they are facing some practical difficulties. They are:

- Lack of time(28)
- More number of learners(18)
- Difficulty in marking
- Lack of understanding regarding continuous evaluation
- Existing grading system is too much
- Unavailability of grading format at time
- Abundance of content

It is found that even though 61.39% of teachers are recording continuous evaluation 38.61% teachers are not making accurate recording. That is a very good number of teachers are not properly maintaining it. The practical difficulties reported are Lack of time, More number of learner, Difficulty in marking , Complexity of existing grading system

lack of understanding regarding continuous evaluation , unavailability of grading format at time and abundance of content.

Framing Different evaluation strategies for CWSN learners

The data based on responses of teachers regarding the framing of different evaluation strategies for CWSN learners were collected and analyzed. The details are given in table 5.56

Table5.56

Framing Different evaluation Strategies for CWSN learners

Aspect	Responses in Percentage	
	Yes	No
FramingDifferent evaluation Strategies forCWSN learners	51.90	48.10

From the table 5.56 it is clear that 51.90% of teachers in Mathematics reported that they framed separate evaluation strategies for CWSN learners and 48.10%are not.

The teachers those who are framing different evaluation strategies for CWSN learners proposed the some strategies they use in the class. They are:

- Picture, play activities
- Giving simple questions
- Oral test
- Drawing
- Worksheet provided
- Dictation
- Peer tutoring
- Shapes and match the following
- Simplification
- Using instruments/teaching aids
- Did not insist accuracy in drawing
- Given simple activities for each unit
- Given separate questions
- Given attractive teaching aids
- Evaluation strategies used according to the mental level of learners
- Evaluation based on special activities
- Evaluation of special skill

- Given appropriate activities
- Special help to them by brilliant learners
- Special corner learning
- Special module
- Drawing and shading geometrical figures
- Include picturisation and developmental activities
- Class test
- Joint activities
- Play games
- Cutting of picture of stories and poems
- Special classes morning and evening
- Reading
- Copy writing
- Giving questions through pictures

From the analysis it is very important to note that about 50% of teachers are not framing separate evaluation strategies for CWSN learners. Special evaluation strategies adopted by the 50% of teachers are Giving simple activities , Solving activities according to the level of learners ,play activities, giving simple questions, Oral test ,Drawing, Worksheets provided ,Dictation ,Peer tutoring, Given simple activities for each unit, special help to them by brilliant learners, Drawing and shading geometrical figures ,Play games ,Cutting of picture of stories and poems,Special classes morning and evening and copy writing.

Recording of responses Based on Term Evaluation

The data based on responses of teachers in Recording of responses based on statements related to term evaluation were collected and analyzed. The details are given in table 5.57

Table 5.57

Recording of responses Based on Term Evaluation

Statements	Great extent	Some extent
Clear awareness about TE	86.71	13.29
The tools adopted for Term Evaluation are adequate for evaluating learning outcomes.	79.11	20.89
Include variety questions which give emphasis to thinking skills	72.78	27.22

Table 5.57 revealed that majority of teachers (86.71%) reported that they have clear awareness about TE to a great extent level. At the same time 79.11% of teachers reported that tools adopted for TE are adequate to a great extent for evaluating the learning outcomes while 72.78% opined that TE includes varied questions which give emphasis to thinking skills to a great extent level.

Majority of teachers (86.71%) reported that they have clear awareness about TE to a great extent level. At the same time 79.11% of teachers reported that tools adopted for TE are adequate for evaluating the learning outcomes while 72.78% opined that TE includes varied questions which give emphasis to thinking skills

Difficulties experienced in TE

The data based on responses of teachers regarding the difficulties they face related to TE are collected and analyzed. The details are given in table 5.58

Table 5.58
Difficulties experienced in TE

Aspect	Responses in Percentage	
	Yes	No
Teachers face Difficulties related to TE	15.82	84.18

It is clear from the table 5.58 that the majority of teachers in Mathematics (84.18%) face no difficulties related to TE where as 15.82% have difficulties related to TE.

Majority of teachers in Mathematics (84.18%) face no difficulties related to TE where as 15.82% have difficulties related to TE.

4.33. Difficulties experienced by teachers in Term Evaluation

The teachers who face difficulties related to term evaluation opined that they are having difficulties in the below mentioned areas. The details are given in table 5.59

Table 5.59
Difficulties experienced by teachers in Term Evaluation

Aspect	Responses in Percentage
Inadequate evaluation strategies	18.99
Difficulty in grading	23.42
Difficulty in recording	11.27

From the table 5.59 it is seen that 23.42% of teachers in Mathematics reported that the difficulties they experienced related to term evaluation is due to difficulty in grading. The other difficulties reported are inadequate evaluation strategies (18.99%) and difficulty in recording(11.27%).

The other difficulties reported by the teachers are given below.

- For all subjects grade for same mark is given
- Did not complete activities within the stipulated time
- Repeated questioning from each unit
- Differences in grading at H S level

From the analysis it is found that few teachers reported that they experienced difficulties related to term evaluation and the difficulties are inadequate evaluation strategies, difficulty in grading and difficulty in recording.

4.34. Evaluation related to art, sports and work experience

The data based on responses of teachers regarding the effectiveness of evaluation related to art, sports and work experience are collected and analyzed. The details are given in table 5.60

Table 5.60

Evaluation related to art, sports and work experience

Aspect	Responses in Percentage	
	Yes	No
Conduct of evaluation related to art, sports and work experience	50.63	49.37

It is clear from the table 5.60 that 50.63% teachers in Mathematics reported that they are able to conduct evaluation related to arts, sports and work experience effectively. At the same time 49.37% teachers reported that they are not able to conduct effectively.

Suggestions for improve the efficiency of evaluation related to arts and sports activity learning-

- Appointing art and sports teachers
- Lack of trained teachers
- Appointing talented teachers

- Access the service of trained teachers
- Give training classes
- Need resourceful teachers
- Lack of time
- Special training
- Evaluation criteria and TE should be given together
- Include more activities in HBTB
- Give specific activities
- Need special courses
- Give cluster training
- Provide separate periods
- Make TT available
- Each child should get the service of physical education teachers
- Make suitable infrastructures
- Provide awareness regarding PT and evaluation

It is significant to note that about half of the teachers are not able to conduct evaluation related to arts, sports and work experience effectively. Suggestions given by teachers for effective conduct of evaluation related to arts and sports are appointing art and sports teachers, Evaluation criteria and TE should be given together, Include more activities in HB and TB, Give specific activities, Need special courses, Give cluster training, Provide separate periods, Make TT available ,Each child should get the service of physical education teachers, Make suitable infrastructures and Provide awareness regarding PT and evaluation.

Evaluation and recording carried out for Socio –Emotional Areas

The data based on responses of teachers regarding the implantation of Evaluation and recording Social and Emotional areas are collected and analyzed. The details are given in table5.61

Table 5.61**Evaluation and recording carried out for Socio –Emotional Areas**

Area	Percentage
Empathy	64.56
Intrapersonal skill	89.87
Problem solving capacity	54.43
Critical thinking	44.94
Self-awareness	78.48
Communicative skill	70.25
Coping with emotions	60.13
Decision making	81.01
Creative thinking	51.27
Coping with stress	42.41

From the table -5.61 it is seen that that majority of teachers (above 70%) responded that they are evaluating and recoding interpersonal skill ,decision making, self-awareness and communication skill under socio-emotional areas. It is followed by Empathy(64.56%),Coping with emotions (60.13%), Problem solving (54.43%),Creative thinking(51.27%),Critical thinking(44.94%) andCoping with stress (42.41%).

It is important to note that a significant number of teachers are not carrying out evaluation and recording of socio-emotional areas like empathy, problem solving skill, creative thinking, critical thinking and coping with stress under socio –emotional areas. Even though majority of teachers are evaluating and recording socio-emotional areas like interpersonal skills, decision making,self-awareness and communication skills, a significant number of teachers are not yet carrying out evaluation and recording in these areas.

V -Subject specific details

The responses of teachers based on Contents of the Lesson, Suitability, Learning activities, materials, subject based competencies and teacher text of class VII Ma

thematics were collected and analyzed . The details are given in Table 5.62

Table5.62

Responses of teachers based on text book and teachertext in Mathematics

Statements	Great extent	Some extent	Not at All
1. Able to transact the contents of Mathematics effectively to the learners	56.96	38.61	4.41
2. Activities are included by confirming that adequate pre-requisites required for conceptualization are available with the learners	78.48	18.35	2.54
3. Able to make the learners apply the ideas generated by them in new situations.	74.68	22.78	2.54
4. There are some more areas in the Mathematics content that requires more clarity for teachers.	58.23	36.08	21.65
5. Explanations in the textbook can be understood by the learners	58.23	36.71	5.06
6. Able to carry out the activities given in the Side/ Boxes in the classroom,	55.70	40.51	3.79
7. Able to carry out activities related to ICT given in the textbook	34.18	59.49	6.33
8. Teacher text is helpful in planning classroom activities	82.91	13.29	3.80
9. Teacher text is helpful in enhancing conceptual knowledge about the content	86.08	10.13	3.79
10. Activities that can be done by the learners, themselves are given in the text book.	59.49	37.34	3.17
11. Able to organize classroom activities so that children can effectively generate mathematical ideas themselves	65.19	31.01	3.80
12. A child can analyze and solve a problem himself	32.28	63.92	3.80
13. The child is able to recognize which mathematical idea/ task to use for problem solving.	49.37	46.84	3.79
14. Learners get opportunities for hypothesising and generalization in the class.	75.32	20.25	4.43
15. Children are able to think rationally and find the cause-effect relation	50.00	44.30	6.70
16. Children are able to gather information and analyze them	50.63	44.30	5.07
17. Learning activities given can be completed in a time-bound manner.	47.47	48.10	5.43

The table 5.62 revealed that majority (86.08%) of teachers reported that Teacher text is helpful to a great extent in enhancing conceptual knowledge of the content and 82.91% reported that Teacher text is helpful to a great extent in planning classroom activities. It is followed by activities are included by confirming that adequate pre-requisites required for conceptualization are available with the learners (78.48%), learners get opportunities for hypothesizing and generalization in the class (75.32%) and able to make the learners apply the ideas generated by them in new situations (74.68%). It is also found that 51.27% of teachers reported that there are some more areas in the Mathematics content that requires more clarity for teachers (58.23%), Activities can be done by the learners themselves are given to a great extent level (59.49%), Able to carry out the activities given in the Side/Boxes in the classroom (55.70%), Explanations in the textbook can be understood by the learners themselves (58.23%). It is significant to note that Learning activities given can be completed in a time-bound manner to some extent level by 48.10% of teachers while 5.43% reported that learning activities given in the text cannot be completed in a time-bound manner. It is found that 59.49% of teachers are able to carry out activities related to ICT given in the textbook to some extent level and 6.33% are not at all carrying out the activities related to ICT. It is very important to note that majority of teachers (63.92%) reported that a child can analyze and solve a problem himself/herself to some extent level using the Mathematics text book.

VI-Class room observation

Table 5.63

STANDARD:VIISUBJECT: MATHEMATICS

Sl. No	Dimensions		Very Good	Good	Needs Improvement	Does Not Meet Standards	No Remarks
1	Teaching Manual		2	10			
2	Preparation		3	8			1
3	Interest and Motivation		4	2	5	0	1
4	Learning Activities	Nature	3	9	0	0	0
		Continuity	5	6			
		Use of Learning Materials	6	5	1		
		Knowledge Construction through Learning Activities	4	8			
		Development of Attitude and Values	3	7	1	1	
		Involvement of Learners	5	6	0	0	1
5	Learning Environment		4	4	1	1	2
6	Classroom Intervention		6	4	1	0	1
7	Reflective Thought		1	4	4	0	3
8	Consolidation		5	6	0	0	1
9	Evaluation Process	Process	5	5	1	0	1
		Self-Assessment					
		Peer Assessment					
		Portfolio					
10	Overview of the Class		1	8	2	0	1
	Total						

1. Teaching Manual (TM)

Observation of classes of 12 teachers in Mathematics (Table 5.63) indicated that two teachers have prepared TM using additional resources and activities creatively other than Teacher Text and all other ten teachers prepared the TM as per the curriculum using essential resources and activities.

2. Pre-planning

It is observed that three teachers ensured the necessary pre-requisites using variety of creative activities , while eight teachers provided a variety of learning activities to get adequate pre-requisites to all learners. At the same time pre-planning was not made by one of the teachers.

3. Interest and motivation

Table - shows that four teachers provided life-oriented and thought provoking activities like description, stories and learning materials for developing interest and motivation among the learners , while only two teachers made the class interesting using descriptions , stories and learning materials. At the same time five of them motivated the learners by only describing the content and asking questions.

4. Learning Activities

Observation of classes of 12 teachers indicated that , in three classes learning activities suggested in TB and TT used by teachers used were highly effective for developing reflective thinking among learners, where as in nine classes variety of learning activities provided were effective.

Five of the teachers transacted the content in a sequential order and spontaneous progress in learning and timely recording in the TM were there in six classes observed. But in one class continuity was losing in certain places.

Among the 12 teachers six teachers were using innovative learning aids, prepared by local resources, for attaining conceptual clarity, five teachers used easily accessible learning aids recommended in the curriculum and one teacher used minimum number of learning aids already available in the school.

Regarding the knowledge construction through learning activities it is found that four teachers supported the learners to attain higher level of knowledge construction through variety of learning strategies including reflective questioning and debating and eight teachers intervene actively by discussion and clearing doubts.

It is seen that only three teachers are providing slots for learning activities to develop attitudes, values and social responsibilities stipulated in the content for intellectual and emotional development, seven teachers provided learning activities for intellectual and emotional development and advice and suggestions were the measures taken by one teacher for developing attitudes and values. It is serious to note that learning activities used by one teacher was not suitable for developing attitudes and values.

It is observed that five teachers helped learners to identify their roles and ensured their involvement in group and individual activities and six teachers helped learners to identify their roles in learning situations correctly, but the involvement of all learners were not ensured.

5. Learning Environment

From the classes observed it is noted that four teachers create infrastructure/ICT facilities and independent social and emotional environment suitable for learning activities for all types of learners, and other four teachers provide learning activities based on available infrastructure/ICT facilities and create essential situation necessary for independent social and emotional environment. It is serious to consider that one teacher was not even using available infrastructure/ICT facilities and in another one teacher - centered method was adopted.

6. Class room intervention

As per the analysis it is observed that four teachers intervened with all types of learners as mentors rather than teachers whereas four teachers made only essential interventions as teachers to attain learning outcomes. One teacher intervenes only as much required to transact the content and no proper intervention was made by another teacher.

7. Reflective thinking

It is observed that out of the 12 classes observed only one teacher provides opportunity for reflective thinking in the concerned class itself and provided Remedial

measures, and four teachers provide opportunity for reflective thinking. It is also noted that four teachers mainly focused on timely evaluation and recording of performance of learners.

8. Consolidation

It is found that in the five classes observed teachers consolidated individual and group activities so as to ensure the learning during and at the end of the class, whereas the other six consolidated group activities during and at the end of the class, but in one class no consolidation was there.

9. Evaluation

From class room observation it is found that five teachers used variety of strategies for different types of evaluation, while five teachers were seen using variety of strategies for evaluating learning outcomes based on the content. It is also seen that one of the teachers depends on certain evaluation strategies suggested in the text book. Evaluation as envisaged by curriculum was not followed by another one teacher.

10. Overview

From the analysis it can be tentatively concluded that in among the 12 Mathematics classes observed the performance of teachers is average with regard to the components like Teaching manual preparation, learning environment, classroom intervention and evaluation process. The above mentioned findings high light the need for empowering Mathematics teachers with necessary competencies and skills for making the learning process oriented learner friendly.

VII. Error analysis

Table 5.64

Data Analysis – Consolidation (Activity – Wise)

ACTIVITY	ASSESSMENT
1	The learners have not understood the features of parallelogram. 82% have the skill to measure length and angle. 18% have not acquired understanding about the measure of angles. With thorough conception of parallelism, only 50 % of the sample could draw a parallelogram. The rest of the sample has to acquire the concept.
2	81% of the learners ignored the question without answering. Though they have grasped about the area of a square, they have not understood about the area of a right angled triangle. The question was not at par with the expected learning outcome of the student. Such an activity has not been referred to either in the text book or the teacher text.
3	The activity was suitable for evaluating the learning outcome. But 75% of the learners were not able to explain the number property in the algebraic method or compare the number property in order to reach general conclusions. 75% of the learners could not analyze the question and reach its conclusion.
4	90% of the learners failed in expressing numbers as the product of powers of its prime factors. They were not able to analyze the question and reach conclusions.
5	75% of learners failed to express number property in algebraic form. The majority could not find out the relations and present them in algebraic method.
6	Only 18% of the learners were able to identify and express the peculiarities of the angles formed while lines intersect parallel lines. 82% didnot get the understanding about the total of angle measures in a triangle.

overview

1. Learners have not identified the features of a parallelogram.
2. The concept of algebra is not understood by the learners.
3. For 90% of the learners the method of presentation of the unit named **numbers** in 6th class is difficult to grasp. The case is same with teachers too.

VIII. TextBookAnalysis

Class VII

Mathematics

1 Heading

Analyze the text and explain the following. Analysis should be on the basis of the title of the lesson\unit.

2 Details

- whether the lessons do justice to constructivist approach.

Even though some of the lessons do justice to constructivist approach, some of them related to repeated multiplication, square and square root stoop to the level of mere statements. At the same time, lessons 3,11 and 12 can be inferred only by learners who have higher order thinking skills.

3 Explanations

Unit -4 Repeated multiplication.

Presentation of 'Rules of Exponents' looks mechanical .

T.B .Page no: 58,59,60,61

Unit -6 Square and square roots.

Presentation of new concepts like square and square roots should be made activity oriented with the support of pictures and other related materials so as to generate interest among the learners.

Lessons related to algebra couldn't do justice to constructivist approach completely.

2 Suitability of content to attain the learning outcomes.

Details

- Learning activities (content) are arranged in accordance with learning outcomes in all chapters.
- Chapter 4 and Chapter 7 related to speed calculation do not contain learning activities to achieve the expected learning outcomes.
- Suggestions that enable the teachers to design activities for different levels of learners may be included .

Explanation

More practical problems can be included to achieve the learning outcome. "learners will be able to do problem solving making use of the idea of average speed in life situations".

More activities should be provided for (achieving) the third learning outcome of the same lesson.

Repeated multiplication in unit-4

More practical problems should be given for laws of divisibility and repeated multiplication in unit-4. The learning outcome in unit 9 "Ratio"(page no.116)-similar forms can be achieved through a follow-up activity that the learners can undertake on their own.

3.The appropriateness of the content for process oriented learning.

The content of the 7th standard Mathematics is prepared/ arranged in a way suitable for processes oriented learning.

The drawbacks that are there in certain part of the chapters of algebra, Repeated Multiplication, etc., can be made process oriented through innovative and accurate planning by a teacher.

Explanation

Using more than one simple example the learners can be given instructions to arrive at a general principle, especially when they experience difficult situations. The presentation of activities in the lesson "laws of Exponents" is not child friendly.

4.Variety in learning activities.

Variety in learning activities is there.

A lot of activities are provided in each unit which consider the individual differences and the multidimensional intelligence of the learner.

In lessons like Parallel lines, square and square root in unit -2, more activities can be included.

Unit 2-Parallel lines

Variety can be brought in the presentation of equal angles, other angles, and corresponding angles ,etc ., so as to develop more interest amongthe learners.

Unit-6 Square and square root

There are opportunities to present the prospects of patterns attractively.

As a method of continuous evaluation,each unit should have work sheetsuitable for learners of different levels.

6. The appropriateness and clarity of pictures, graphs, maps etc.

The picture, cartoons, photo in 7th standard Mathematics text book are all clear and appropriate.

Appropriate cartoons and pictures can be provided in other units too.

Units where we can make use of pictures / cartoons.

Higher level questions can be presented through pictures.

The cartoons given while presenting ideas help a lot to enforce concepts .Cartoons rich with concepts/ideas can be included.

7. The parts of lessons which need more explanation

The content may need more explanation and addition when we ensure learning outcomes of activities that combine different ideas

The lessons which require more explanation are given below.

Unit -1 Parallel lines

There are ample opportunities to compare the angles formed when one line crosses two parallel lines.

But no opportunity is provided to discuss situations which are non parallel.

There is an opportunity (scope) for comparing angles formed when two parallel lines are intersected by a transversal. But there is no scope for discussing non parallel situations.

- Give activity like ‘unchanging forms in page 21 of TB.
- Space should be provided for seminar/project/cartoon, etc .,on “The influence of parallel lines in daily life”.

Unit-4-Repeated multiplication

It is not mentioned $2^0=1$ in textbook of standard 7. Infact any number can be written as the exponent of 2 or sum of the exponents. (T.T Page 112 (Exponents of exponents))

T.B Page 62 *Kizhikanakku*

T.B Page 64 .Perfect numbers.

In activities related to *Kizhikanakku on page no 62 of TB* and perfect numbers on page no 64, it is quite difficult to explain '1'

Unit.5 Area of a triangle

It would be more child friendly if the activities in TB page 77 are given after familiarizing the possibilities of a Rhombus. There should be activities to familiarize parallelogram.

Unit 6 Square and Square root

In order to find out the square root of a number, it would be beneficial to include the method of finding indivisible factors of the number for testing the previous knowledge.

Unit-10-Money Math

Bank interest is calculated on a daily basis.

More practical problem related to this issue should be included in TB or T.T.

There should be ample opportunities to acquaint with banking methods related to daily life.

e.g. E-banking, ATM, Credit card, Debit card, Cheque\DD, Bank forms)

Unit-9-Ratio

Ratio does not change if two numbers (measurements) are expanded or contracted . There is not much discussion about the idea related to contraction in the text book .

Unit -12 Squares and right triangles

Faces difficulty to comprehend the explanation of activities for the first 3 learning outcomes. It would be better if more notes or introductory notes (remarks) are given to indicate the aim of these.

Text book page no.159,160-increase the size.

Unit 13-New Numbers

If T.T activities are not comprehended the activities of Speed Math onpage 154 of TB, Negative speed in page 185 of T.B will be difficult for the learners .

Unit-14 Pie charts

More activities should be included in T.B to compare the Pie charts to Bar diagram.

SI No 8

lessons which need simplification.

Details

There is a general difficulty in the unit associated with Algebra (unit 3, 11) in 7th standard Mathematics. There should be simple learning activities which uses examples from real life and relation between numbers to overcome the learners inability to present common principles in algebraic forms.

Explanation

In unit 3, Relations of measurements (page 36, 37, 38, 39, 40, 41, 42, 43-blue colour), Activities should be more process oriented and simple (simplified).

The method of presentation in TB is boring both to the teacher and the learner.

(Sum and difference page.45, 46, 47) are also like this. (These problems can also be seen in the presentation of the lesson Numbers and Algebra in unit 2.

If the learning activities in algebra are arranged in a simple and spiraling manner, it will be beneficial to both the learner and the teacher.

9. The Possibilities for continuous evaluation

Details

It's not practical to evaluate fully all the skills and concepts acquired by the learner. Yet slots are provided in every lesson for continuous evaluation based on learning outcomes.

This matter is taken into consideration while preparing Teacher Text.

Eplanations

There are possibilities for continuous evaluation in all the 14 units of standard 7. If worksheets that help to assess each learning outcome is given along with each unit, the process of continuous evaluation would become complete.

Activities to evaluate portfolios, seminars, projects, the recordings by the learners are there in each unit at different levels.

Unit-12

The provision of an introductory note about the aim of these activities will help to comprehend the process oriented activities given in the text.

Can increase the size. (Page no. 159, 160. T.B)

Explanation should be given in a simplified manner by citing other examples.

The prospects for continuous evaluation is recorded (marked) in all the 14 units of 7th standard Mathematics (C.T.T).

Continuous evaluation will reach a culmination (will be complete) if worksheets suitable for measuring each learning objectives are provided along with each unit.

These are different levels of evaluation prospects for the learners recordings, portfolios, seminar, project and other constructive activities in each unit.

10. Ensuring that there is no kind of discrimination

Had tried to include lessons without discrimination

Activities or hints suitable for the differently abled can be given.

Activities that take into account differently abled learners can be given in teacher text.

11. The possibility of Democratic values.

Due care has been taken to include democratic values in appropriate situations.

Speed Math

Problems due to over speed of vehicles, Kinetic movement of the Earth and other heavenly bodies.

Measures to mitigate road accidents

Attitude to obey laws

Money Math

Awareness about share markets, Insurance companies, Banks, Private institutions for money transactions (private banks) etc.

Not to be duped by the marketing strategies of traders\Merchants.

Attitude to protest against usury

Attitude to help people in debt

Ratio

Situations in daily life when ratio is used

Pie charts

Data collection and recording topics of contemporary relevance

12. Child friendly layout.

Details

As the base tool in the learning process of the learner, the layout of the text book carries due importance. The lay out of the 7th standard TB has to improve. even though picture and cartoons are there ,some parts of the text books don't look good.

- Distinguish activities from main stream and side box is found to be difficult..
- Attractive layout should be given to enable the learners to undertake activities on their own.(projecting Method)
- ICT possibilities should be in separate boxes that can be (easily) noticed.
- Graphic depiction should be provided for higher order activities.
(Activities for higher standard)
- Unit related to Algebra has excess content (unit 3,11)
- Interesting information related to the lesson must be included in the blank spaces provided.

E.g. unit 10-Money Math

13. Appropriateness of the teacher text in transacting the lessons.

- 7th standard T.T enables the teacher to transact the learning outcomes. The facts related to the lessons but not included in the TB should be analyzed in the teacher Text.
- More practical problems and worksheets connected with learning outcomes of each units should be included in the TT.

Explanations

Unit 10 – Money Mathematics

Unit 12 – More practical problems related to square and right triangle.

- Prior knowledge and post knowledge connected with each lesson should be included in TT.
- Continuous evaluation in relation with learning outcome should be included.

14.Others

- Factual, Conceptual and Printing errors should not be there in TT and TB. If there is it should be rectified immediately
- Some of the detailed explanation given in the TB should be shifted to the TT and the pages of the TB reorganized.

Unit:4-Repeated Multiplication

On page number 54 of TB, in the area Numbers in Science, the measurement of light year is given as $=9.46 \times 10^{17}$ Km.

But the actual measurement of light year is $=9.461 \times 10^{12}$ km or 9.461×10^{15} m.

In the same area, the distance to the star ‘proximacentauri’ is wrongly recorded as 3.99×10^{18} km. But 3.99×10^{13} km is correct.

Avoid too much of explanation in the TB but include in TT. By doing this the complaint regarded over loaded content can be awarded to an extent.

II.F. Support system

Support obtained for Teachers

Teachers of seventh standard for all subjects were asked to report whether they obtain support from HM, BRC, DIET, ISM, SCERT, SMC/PTA, MPTA, SSG, LSG, NGO, SSA, Clubs, SPC, and Alumni. The responses obtained were tabulated and summarized in Table 6.1

Table 6.1

Individual/agencies from where Teachers draw support

Sl.No.	Individual/Agencies	Total	Mathematics	English	Malayalam	Science	SS
1	HM	96.53	95.57	95.48	96.13	96.15	99.35
2	BRC	95.24	92.41	95.48	94.84	94.87	98.69
3	DIET	65.77	65.82	65.16	65.81	69.23	62.75
4	ISM	58.43	52.53	63.87	62.58	58.33	54.90
5	SCERT	59.97	58.23	65.16	58.06	58.33	60.13
6	SMC/PTA	80.57	83.54	78.71	78.71	82.69	79.08
7	MPTA	80.69	79.11	83.23	80.00	78.21	83.01
8	SSG	66.02	67.72	71.61	62.58	62.18	66.01
9	LSG	42.21	39.87	41.29	39.35	42.95	47.71
10	NGO	16.34	20.89	18.06	13.55	12.82	16.34
11	SSA	82.37	73.42	85.81	83.23	82.69	86.93
12	Clubs	71.81	70.25	67.10	75.48	71.15	75.16
13	SPC	20.46	20.89	18.71	19.35	17.31	26.14
14	Alumni	11.45	18.35	4.52	11.61	7.05	15.69

From the table 6.1 it is evident that a great majority of teachers reported that they received support from HMs (96.53%), BRC ((95.24%) while majority received support from SSA (82.37%), SMC/PTA(80.57%) MPTA (80.69%), (73.42%), Clubs (71.81%), SSG(66.02%), DIET (65.77%), SCERT (59.97%), and ISM (58.43%).Less than half of the teachers received support from LSG (42.21%)whereas a very low percentage of them received support from, SPC (20.46%) NGOs (16.34%) and Alumni (11.45%).

This indicate that there is a strong support system in favour of the teachers to help in their activities at school and outside the major agencies of support being HMs and BRC followed by SSA, SMC,PTA,MPTA Clubs, DIET, SSG and SCERT

Responses of teachers regarding areas of support that they get from the different agencies

The teachers were asked to list the areas in which they got support from the agencies like HM, BRC, DIET, ISM, SCERT, SMC/PTA, MPTA, SSG, LSG, NGO, SSA, Clubs, SPC, and Alumni. Their responses were collected and tabulated in Table 6.2

Table: 6.2

Responses of teachers regarding the areas of support they get from the supporting agencies

Sl.No.	Areas	Total	Mathematics	English	Malayalam	Science	SS
1	Academic	95.75	96.84	94.84	94.19	97.44	95.42
2	Infrastructure (Class room facilities)	79.15	79.75	75.48	83.23	79.49	77.78
3	Financial (Grants)	82.75	83.54	77.42	85.16	83.97	83.66
4	To ensure child rights	67.95	74.68	67.74	65.16	60.90	71.24
5	To enhance the emotional stability of children	56.76	64.56	53.55	59.35	50.00	56.21
6	To nurture life skills in children	68.60	68.35	70.32	71.61	62.82	69.93
7	Child friendly environment	79.67	79.11	81.29	80.65	76.28	81.05
8	Environmental awareness	75.42	74.05	78.06	78.71	69.23	77.12
9	Waste management	73.62	69.62	74.19	75.48	73.08	75.82
10	Health and Physical education	68.47	67.09	71.61	74.84	60.26	68.63
11	Cyber safety	52.51	57.59	60.00	57.42	39.10	48.37
12	Art and Work experience education	62.03	62.03	62.58	64.52	53.21	67.97
13	Adolescent education	62.81	66.46	62.58	63.23	53.21	68.63
14	Guidance and Counseling	67.18	67.72	72.90	62.58	62.82	69.93
15	Right based education	58.82	60.76	62.58	58.06	50.00	62.75
16	Awareness	64.99	68.99	69.03	66.45	58.97	61.44

	against Crimes						
17	Anti-addiction activities	79.15	74.68	78.06	80.00	80.13	83.01
18	Values/Attitudes	70.27	72.15	67.10	68.39	66.03	77.78
19	Awareness against Abuses	68.21	70.25	69.68	67.10	62.82	71.24
20	Assessment (CE& TE)	73.62	77.22	69.68	67.10	75.64	78.43
21	Water Literacy	59.33	60.13	61.94	60.00	53.85	60.78
22	Energy Literacy	66.41	65.19	61.94	64.52	64.74	75.82
23	ICT	66.67	70.89	66.45	63.23	65.38	67.32
24	Others	15.70	48.10	3.23	16.77	8.97	0.65

From the Table 6.2, it is evident that majority of teachers in All subjects reported that they received support in areas Academic (95.75%), Financial (Grants)(82.75%), while majority of them reported that they received support in developing Infrastructure (Class room facilities) (79.75%), Child friendly environment (79.67%), Anti-addiction activities (79.15%), Environmental awareness (75.42%) Waste management (73.62%) Assessment (CE& TE) (73.62%), Values/Attitudes (70.27%) To nurture life skills in children (68.60%)Health and Physical education (68.47%), To ensure child rights (67.95%), Guidance and Counseling (67.18%), Awareness against Crimes (64.99%) Adolescent education (62.81%) Art and Work experience education (62.03%) Water Literacy (59.33%) Right based education (58.82%). To enhance the emotional stability of children (56.76%) and Cyber safety (52.51%).

Inference:

majority of (65% and above) teachers reported that they get support from different agencies in almost all areas except Water Literacy, Right based education, Cyber safety, and enhancement of the emotional stability of children .In these areas relatively lesser proportion of teachers get support (Between 52-62%).

Effectiveness of feedback from monitoring

The teachers under study were asked how far the feedback from monitoring was helpful for them for their improvement. The responses obtained are presented in table 6.3

Table 6.3

Responses of teachers regarding the usefulness of feedback from monitoring

Subjects	To a great extent	To some extent	Not at all	Total
Mathematics	25.32	72.15	0.00	
English	29.68	64.52	0.65	
Malayalam	23.23	74.19	0.65	
Science	26.28	67.31	2.56	
SS	23.53	72.55	0.00	
Total	25.61	70.14	0.77	

Majority of teachers in (72.15%) reported that feedback received from monitoring was helpful to them up to a some extent for improvement, whereas for 25.32% of teachers, feedback received from monitoring was helpful to a great extent.

Majority of teachers in English (64.52%) reported that feedback received from monitoring was helpful to a some extent ,while 29.68% of teachers feel that it was helpful to a great extent for their improvement.

Feedback received from monitoring was helpful only to a some extent for majority of teachers in Malayalam (74.19%) while 23.23% of them feel that it was helpful to a great extent for their improvement.

Majority of teachers in science (67.31%) reported that feedback received from monitoring was helpful to a some extent for improvement, whereas 26.28% of teachers reported that it was helpful to a great extent.

For majority of teachers in social science (72.55%), feedback received from monitoring was useful to a some extent for improvement, while for 23.53% of them, it was helpful to a great extent.

Inference

Majority of the teachers from all subjects (Above 64 %) feel that the feedback from monitoring was useful for their improvement only to some extent while a small proportion of them (24-29 %) reported that it was useful to a great extent. A negligible proportion of them said that it was not useful

Self- improvement based on feed back

The teachers under study were asked whether they try to improve themselves on the basis of the feedback of monitoring .the responses are given in table 6.4

Table 6.4

Responses of teachers regarding whether they try to improve themselves on the basis of the feedback from monitoring

Subject	Yes	No	No response
Mathematics	96.84	1.90	1.26
English	94.84	0.00	5.16
Malayalam	96.13	1.29	2.58
Science	94.23	0.64	5.13
SS	96.73	0.00	3.27
Total	95.75	0.77	3.48

A great majority of teachers of all subjects Mathematics(96.84%), English (94.84%), Malayalam (96.13%), Science (94.23%) and SS (96.73%) reported that they are trying for Self- improvement based on feed back

Inference

A great majority of the teachers of all subjects under study (above 92 %) try for self-improvement on the basis of feedback from monitoring

Follow up activity based on monitoring.

The teachers of all subjects were asked whether they plan and implement follow up activities on the basis of monitoring experience. Their responses presented in table 6.5

Table 6.5

Subject	Yes	No	Total
Mathematics	95.57	0.63	
English	94.84	0.00	
Malayalam	92.90	1.29	
Science	91.03	1.28	
SS	93.46	1.31	
Total	93.56	0.90	

A great majority of teachers of all subjects- Mathematics (95.57%), English (94.84%), Malayalam (92.90%), Science (91.03%), SS (93.46%) reported that they are providing follow up activities based on monitoring.

Inference

A great majority of teachers of all subjects-(above 90%)reported that they provide follow up activities on the basis of monitoring.

Academic areas in which the teachers get clarity through training

The teachers are given periodical training with the aim of making them experts in their profession. The training often include different areas where the need is really felt. The teachers of all subjects under study were asked to indicate the areas in which they could get clarity through training. Their responses are consolidated in table 6.6

Table 6.6

Academic areas in which the teachers get clarity through training

Areas	Total	Mathematics	English	Malayalam	Science	SS
Content	86.36	92.41	81.29	87.74	87.18	83.01
Teaching learning strategies	88.67	94.94	89.03	86.45	84.62	88.24
Products	79.54	82.28	76.77	82.58	78.21	77.78
Art and work experience education	41.31	43.67	39.35	41.29	34.62	47.71
ICT	66.92	67.72	63.23	58.06	75.64	69.93
Inclusive education	48.26	47.47	47.10	46.45	41.03	59.48
CE/TE	83.27	82.28	83.23	75.48	87.18	88.24
Learning outcomes	83.40	82.28	84.52	76.77	83.97	89.54
Learning resources	70.66	70.25	74.19	67.10	69.23	72.55
Health and physical education	41.18	42.41	40.00	36.77	37.18	49.67
Guidance and counseling	41.18	43.67	43.87	36.77	36.54	45.10
Others	17.89	19.62	20.65	15.48	13.46	20.26

It is evident from Table 6.6 that the major areas in which the teachers got maximum clarity through training are, Teaching learning strategies (88.67%), Content (86.36%), Learning outcomes (83.40%), CE/TE (83.27%). Other areas reported by them include Products (79.54%), Learning resources (70.66%), ICT (66.92%). There are areas reported by less than half of the teachers that they got clarity in are, Art and work experience education (41.31%), Inclusive education (48.26%), Health and physical education (41.18%), Guidance and counseling (41.18%) and Other miscellaneous areas (17.89%).

Table 6.7

Responses on whether the Training helps in transacting the lessons fruitfully

Subject	Fully	Partially	Not at all
Mathematics	39.87	56.33	0.00
English	54.84	38.06	0.00
Malayalam	47.10	45.16	0.00
Science	41.03	53.21	0.00
SS	61.44	35.29	0.65
Total	48.78	45.69	0.13

It can be seen from Table 6.7 that for 39.87% of teachers in **Mathematics** the training fully helped in transacting the lessons fruitfully while for 56.33% the training helped partially in transacting the lessons fruitfully.

Table V (vii) shows that for 54.84% of teachers in **English** the training fully helped in transacting the lessons fruitfully while for 38.06% the training helped partially in transacting the lessons fruitfully.

At the same time for 47.10% of teachers in **Malayalam** the training fully helped in transacting the lessons fruitfully while for 45.16% the training helped partially in transacting the lessons fruitfully.

Again it can be read from Table V (vii) that for 41.03% of teachers in **Science** the training fully helped in transacting the lessons fruitfully while for 53.21% the training helped partially in transacting the lessons fruitfully.

Table V (vii) also reveals that for 61.44% of teachers in **Social Science** the training fully helped in transacting the lessons fruitfully while for 35.29% the training helped partially in transacting the lessons fruitfully. It is also reported that for a very low percentage (0.65%) of them the training not at all helped in transacting the lessons fruitfully.

The responses of teachers give a mixed picture on the fruitfulness of trainings in transaction of curriculum. For major proportion of English teachers (54.84%), Malayalam (47.10%) and SS teachers (61.44%) the training was fully useful while for most of the Mathematics teachers (56.33%), and Science teachers (53.21%) it was partially fruitful

Suggestions for improving teacher training programmes

The suggestions offered by the teachers for improving teacher training programmes were collected and the details of analysis are given below:.

- Training on ICT enabled classroom transaction should be given periodically and subject specific resource CDs are to be provided
- The resource persons should be selected on the basis of their quality and dedication to the training. Service of experts from different fields like well trained teachers, doctors and psychologists, special teachers, and scientists should also be made use of in the training programme
- The areas of training should include Preparation of teaching learning materials like Work sheets, and additional learning activity package , Arts, Sports and Health education, Activities for differently abled children, teaching manual preparation , communicative English, counseling, management ,and evaluation. Unit wise analysis and reduction in the complexities of specific areas should be done.
- Training should be time bound They should be given during vacation or holidays without affecting the regular classes.
- Model classes should also be arranged along with theoretical sessions. .
- Teachers should be provided training in all the subjects they handle.

Training in different subjects should be arranged on different days so that it won't affect school.

- English teachers demand that Use of language lab should be included training . The possibility of theatre and language games may be ensured.
- RP's may be interchanged district wise to avoid monotony.
- Learning strategies aiming at the overall development of the learners should be included.
- ISM visit should be made permanent.
- Strict measures to be taken against teachers who fail to attend training.
- Teacher empowerment should be enhanced through video conferencing. .
- Science teachers demand Sessions on experiments and activities which are included in the text book. Each teacher should be given opportunity to practice experiments.

II.G. Analysis of Data collected from HMs

Data collected from the HMs are analysed and presented.

School Resource Group (SRG) meetings

The head teachers under study were asked how often they conduct SRG meetings at school. Their responses are given in table 7.1.

Table 7.1

Number of SRG's conducted per month

Frequency of S.R.G's per month	Number of H.M.s	Percentage
Once	16	8.89
Twice	58	32.22
Three times	32	17.78
Four times	70	38.89
More than four times	4	2.22

The table 7.1 gives the frequency of SRG meetings conducted at schools per month, as reported by the head teachers. Most of the head teachers conduct SRG meetings twice (32.22%) thrice (17.78%) or even four times (38.89%). Only 8.89% of H.M.s conducts S.R.G.s once a month whereas 2.22% of H.M.s conducts S.R.G's more than 4 times as the situation demands.

The above results indicate that vast majority of the schools conduct SRG meetings more than once in a month. This shows that the schools recognize the importance of conducting SRG meetings as a review and planning body of school activities and hence their higher frequency.

Areas in which the H.M provides suggestions after going through teaching manuals

After going through the teaching manuals the HMs often give suggestions regarding the various aspects related to the classroom teaching. The HMs was asked to list the areas in which they provide suggestions in this way, and their responses are listed in table 7.2.

Table 7.2

Areas in which the H.M provides suggestions after going through teaching manuals

Areas where Suggestions are provided	Number of H.M.s	Percentage
Learning activities	173	96.11
Continuous evaluation	157	87.22
Learning materials and resources	161	89.44
Responses	166	92.22
Qualitative notes	130	72.22
Work sheets	10	5.56
Considering academically backward students	22	12.22
Portfolio	10	5.56
ICT	2	1.11
Home works	1	0.56

As the table 7.2 indicates, the main areas in which the head teachers had offered suggestions after going through teaching manuals of teachers, were- the learning activities to be given to students(96.11%) followed by the areas ‘responses’ (92.22%) learning materials and resources (89.44%), continuous evaluation.(87.22%).and writing ‘Qualitative notes (72.22%). The other minor areas in which their suggestions were given include ‘Considering academically backward students’(12.22%), on preparation and use of ‘Work sheets’ (5.56%), on Portfolios (5.56%),on ICT (1.11%), and on Home works 0.56% .

Therefore it can be inferred that that a vast majority of H.M.s provide suggestions based on Learning activities, Continuous evaluation, Learning materials and resources and Responses.

Support for the development of Art-Sport-Health-Work Experience

The head teachers have to provide support to areas like Art, Sports, Health, and work experience, irrespective of whether they have got enough expertise in these areas. This often causes difficulties to the HMs. The HMs was asked whether they face any difficulty in providing support for the development of Art, sports, Health, and work experience. Their responses are consolidated below in table 7.3.

Table 7.3**Difficulty in providing support for the development of Art-Sport-Health-Work Experience**

Opinion	Number of H.M.s	Percentage
Very much	52	28.89
Some	109	60.56
Not at all	15	8.33
No Response	4	2.22

From the table 7.3 it is apparent that majority of the H.M's experience (60.56%) 'some' difficulty in providing support for the development of arts, sports, health and work experience while 28.89% reported that they feel 'very much' difficulty in providing support. However 8.33% of H.M.s reported that they experience no difficulty at all in providing support for the development of Art-Sport-Health-Work Experience.

Therefore it is interpreted that a vast majority of H.M.s need to develop a clear understanding of the different aspects related to the development of Art-Sport-Health-Work Experience and the resources that can be used etc, for providing support for the same.

Areas where difficulties are observed

HM's often face difficulties in providing support for the development of arts, sports, health and work experience, with respect to their different areas. The following are the areas where they face difficulties in giving support (Table 7.4).

Table 7.4**Areas where difficulties are observed**

Areas	Number of H.M.s	Percentage
Financial	145	80.56
Infrastructure	127	70.56
Experts / Expertise	145	80.56
Collaboration	56	31.11
Other areas		
Insufficient funds	18	10
The Rule of not to collect money from students	9	5
Lack of Art and Physical education teachers	53	29.44
Lack of adequate space	37	20.56

The huge expenditure required for exhibitions	4	2.22
Lack of services of Experts	18	10
Lack of definite and continuous curriculum	3	1.67
Lack of co-operation from parents	7	3.89
Paucity of time	21	11.67
Lack of materials	23	12.78
Lack of support from Government agencies	2	1.11
Class charge of Head masters	1	0.56
Financial backwardness of parents	1	0.56
Inadequate training	6	3.33

It is obvious from the table 7.4 that a vast majority (80.56%) of H.M.'s face difficulties in financial aspects and in locating Experts / Expertise in providing supports for the development of Art-Sport-Health-Work Experience. Similarly 70.56% face difficulties related to Infrastructure while 31.11% face problems with collaboration.

The other specific areas where the H.M.'s face difficulties in providing support for the development of Art-Sport-Health-Work Experience are Lack of Art and Physical education teachers (29.44%); Lack of adequate space(20.56%); Lack of materials (12.78%); Paucity of time (11.67%); Insufficient funds (10%); Lack of services of Experts (10%); The Rule of not to collect money from students (5%); Lack of co-operation from parents (3.89%); Inadequate training (3.33%); The huge expenditure required for exhibitions (2.22%); Lack of definite and continuous curriculum(1.67%); Lack of support from Government agencies (1.11%);Class charge of Head masters (0.56%) and Financial backwardness of parents(0.56%).

From the above results it becomes clear that the major areas in which the HMs face difficulties in providing support for the development of arts, sports, health and work experience, are financial aspects, locating experts and procuring the necessary infrastructure.

Conducting class observation and providing necessary suggestions

The head teachers are expected to conduct class observation and provide suggestions for the improvement of the classroom teaching , when and where necessary. But how far this is going on in schools depends on different factors like the attitude of the HM, his\ her managerial skills and expertise, frequency of administrative duties and the like. Hence it is

necessary to see how often the HMs conduct class observation and provide necessary suggestions. The responses of the HMs in this regard are provided in table 7.5.

Table 7.5

Conducting class observation and provide necessary suggestions

	Number of H.M.s	Percentage
Always	64	35.56
Sometimes	112	62.22
Never	2	1.11
No Response	2	1.11

From the table 7.5 it is evident that majority (62.22%) of the head teachers could conduct class observation only ‘sometimes’-may be because they are busy with other official works at school and outside. Yet more than a third (35.56 %) of H.M.s reported that they ‘always’ conduct class observation and provide necessary suggestions. However a negligible proportion (1.11%) of H.M.s said that they do not conduct class observations at all.

These results are in agreement with common observation. In schools, a good number of headmasters try to conduct class observations and provide necessary suggestions to the teachers as and when possible.

Ensuring attainment of learning outcomes

All the learning activities in and out the classroom are focused towards the attainment of student learning outcomes. Hence, the teachers are to focus on this and the HMs have to ensure whether the students of each class attain prescribed learning outcomes. The HM’s understudy were asked whether they try to ensure the attainment of learning outcomes and their responses are given below in table 7.6.

Table 7.6

Ensuring that students attain learning outcomes

	Number of H.M.s	Percentage
Always	105	58.33
Sometimes	70	38.89
Never	2	1.11
No Response	3	1.67

The Table 7.6 suggests that a majority of the H.M.s (58.33%) always ensure that students attain learning outcomes whereas 38.89% sometimes do it. 1.11% of H.M.s do not ensure that students attain learning outcomes at all.

This result indicate that a vast majority of H.M.s are much concerned about the students' excellence and hence try to ensure that students attain learning outcomes.

Making use of services-Experts and Local resources

Making use of the resource support from sources outside the school is now a days a common practice among the schools which aim for more excellence. The HMs were asked whether they make use of the service of experts and local resources and their responses are given in table 7.7.

Table 7.7
Making use of Services

	Number of H.M.s	Percentage
Services of Experts	138	76.67
Local resources	115	63.89
No response	4	2.22

The Table 7.7 suggests that a majority of the H.M.s under study use the services of Experts (76.67%) and Local resources (63.89%). This indicates that the excellence of the students as well as teachers is an important concern of majority of the head teachers and hence they are willing to seek maximum resource support for them from experts and local resources.

Details of use of Services of Experts and Local resources

Services of Experts and Local resources are often adopted for giving additional support in areas where the teachers of the schools cannot support the students adequately .This is made use of in schools related to different areas as required. The areas in which their services are used, as reported by the head teachers are given in table 7.8.

Table 7.8

Details of use of Services of Experts and Local resources

Areas	Number of H.M.s	Percentage
Day celebrations	12	6.67
Arts and sports	18	10
Parental help and support	4	2.22
Agriculture	25	13.89
Awareness programs	60	33.33
Experts classes for students	25	13.89
Experts classes for teachers	68	37.78
Interviews	22	12.22
Strengthening of PTA	4	2.22
Health activities	18	10
Workshops	7	3.89
Field trips	12	6.67

The table 7.8 above illustrates that the various areas where the H.M.'s use the services of experts and local resources are, for giving experts' classes for teachers (37.78%); awareness programs (33.33%); Agriculture (13.89%); Experts' classes for students (13.89%); Interviews (12.22%); Arts and sports (10%); Health activities (10%); Day celebrations (6.67%); Field trips (6.67%); Workshops (3.89); Parental help and support (2.22%) and Strengthening of PTA(2.22%).

The results shows that the head teachers are much aware about the excellence that can be brought to their institution availing services of Experts and Local resources and the different areas in which they can be availed.

6 (b) Reasons for not availing services

Most of the schools in Kerala try to avail Services of Experts and Local resources. If at all they do not avail them, there are specific reasons for it. The responses of the head teachers regarding the reasons for not availing of services of experts and local resources are as follows:-

Lack of services of experts

Over-workload of Teachers

Over-workload of H.M.

Financial constraints

The contexts of availing the services of SMC/PTA

SMC/PTA is a statutory body for giving support to the schools in various contexts. In almost all the schools it is functioning effectively too. The different contexts, in which the services of the SMC / PTA are availed, as reported by the headmasters, are given below in table 7.9.

Table 7.9
Contexts of availing the services of SMC/ PTA

Context	Number of H.M.s	Percentage
Re-opening festival	179	99.44
Day celebration	162	90
Noon-Meal	152	84.44
Club activities	138	76.67
Anniversary	152	84.44
Festivals (Mela)	154	85.56
Other Contexts		
Celebrations	8	4.44
Agriculture	11	6.11
Seminar Workshops	5	2.78
Awareness programmes	12	6.67
Health activities	8	4.44
Infrastructure	23	12.78
Field trips	60	33.33
Camps	6	3.33

The table 7.9 makes it clear that a vast majority of the H.M.s make use of the services of SMC/PTA in the following contexts - Re-opening festival (99.44%); Day celebration(90%); Festivals (Mela) (85.56%); Noon-Meal (84.44%); Anniversary (84.44%) and majority of them for Club activities(76.67%). The other contexts where the services of SMC/ PTA are availed are Field trips (33.33%); Infrastructure (12.78%); Awareness programmes (6.67%); Agriculture (6.11%); Celebrations (4.44%); Health activities (4.44%); Camps (3.33%) and Seminar Workshops (2.78%).

Therefore it can be interpreted that a vast majority of the H.M.s make use of the services of SMC/PTA in different occasions as and when required and their service is mostly availed during the re-opening festival-the pravesanotsavam- and day celebrations.

Table 7.9**Contexts of availing the services of MPTA**

Context	Number of H.M.s	Percentage
Re-opening festival	169	93.89
Day celebration	147	81.67
Noon-Meal	156	86.67
Club activities	110	61.11
Anniversary	151	83.89
Festivals (Mela)	142	78.89
Other Contexts		
Celebrations	9	5
Agriculture	10	5.56
Seminar Workshops	5	2.78
Awareness programmes	11	6.11
Health activities	10	5.56
Infrastructure	15	8.33
Field trips	50	27.78
Camps	6	3.33

Mother PTA is one of the most effective agencies rendering support to the school activities. The table conveys that a vast majority of the H.M.s make use of the services of MPTA in the following contexts - Re-opening festival (93.89%); Noon-Meal (86.67%); Anniversary (83.89%); and Day celebration(81.67%); and majority of them for Festivals (Mela) (78.89%) and Club activities(61.11%). The other contexts where the services of MPTA are availed are Field trips (27.78%); Infrastructure (8.33%); Awareness programmes (6.11%); Agriculture (5.56%); Health activities (5.56%); Celebrations (5%); Camps (3.33%) and Seminar Workshops (2.78%).

It can be inferred that vast majority of the H.M.s make use of the services of MPTA for their school in various occasions especially there-opening festival, Noon-Mealprogramme, school anniversary and Day celebration whereas majority of them avail its services for Festivals (Mela) and Club activities.

Contexts of availing the services of Local Self Government (LSG)

Local Self Government Play an important role in promoting school education. The different contexts in which the services of the LSG is made use of, as reported by the HMs are given below in Table 7.10.

Table 7.10
Contexts of availing the services of LSG

Context	Number of H.M.s	Percentage
Re-opening festival	123	68.33
Day celebration	83	46.11
Noon-Meal	67	37.22
Club activities	52	28.89
Anniversary	128	71.11
Festivals (Mela)	68	37.78
Other Contexts		0
Celebrations	3	1.67
Agriculture	4	2.22
Seminar Workshops	2	1.11
Awareness programmes	4	2.22
Health activities	4	2.22
Infrastructure	17	9.44
Field trips	11	6.11
Camps	4	2.22

The table 7.10 represents that a majority of the H.M.s make use of the services of LSG for Anniversary (71.11%) and Re-opening festival (68.33%). L.S.G is also made use of, by H.M.s, for Day celebration(46.11%); Festivals (Mela) (37.78%); Noon-Meal (37.22%) and Clubactivities(28.89%).

The other contexts where the services of LSG availed are for the development of Infrastructure (9.44%), Field trips (6.11%), Awareness programmes (2.22%), Agriculture (2.22%), Camps (2.22%), Health activities (2.22%), Celebrations (1.67%) and Seminar /Workshops (1.11%).

Therefore it can be inferred that a majority of the H.M.s make use of the services of LSG for Anniversary and Re-opening festivals.

Contexts of availing the services of Alumni

Alumni associations are now a days on stage rendering support to school in various ways as all the members have a favourite feeling about their school. The different contexts in which the services of the alumni association is availed, as listed by the HMs are given Table 7.11.

Table 7.11
Contexts of availing the services of Alumni

Context	Number of H.M.s	Percentage
Re-opening festival	57	31.67
Day celebration	38	21.11
Noon-Meal	14	7.78
Club activities	29	16.11
Anniversary	103	57.22
Festivals (Mela)	57	31.67
Other Contexts		
Celebrations	2	1.11
Agriculture	2	1.11
Seminar Workshops	2	1.11
Awareness programmes	3	1.67
Health activities	3	1.67
Infrastructure	11	6.11
Field trips	7	3.89
Camps	3	1.67

It is evident from the table 7.11 that the services of the alumni of the school is availed by majority of the H.M.s for Anniversary (57.22%), whereas alumni support is also utilised by H.M's for Re-opening festival (31.67%); Festivals (Mela) (31.67%); Day celebration (21.11%); Club activities(16.11%) and Noon-Meal (7.78%).

The other contexts where the services of alumni are availed are, Infrastructure (6.11%); Field trips (3.89%); Awareness programmes (1.67%); Health activities (1.67%); Camps (1.67%); Agriculture (1.11%); Celebrations (1.11%); and Seminar Workshops (1.11%).

It can be inferred from the above results that although majority of the H.M.s make use of the services of alumni for Anniversary, the services of alumni is not properly utilised with regard to other aspects.

Ensuring sharing of ideas received by teachers from training

The teachers are expected to have up to date knowledge about the different subjects, strategies that can be adopted to transact the curriculum , innovations made in the education field, and programmes implemented by agencies like DIET, SSA, SCERT, SIEMAT etc related to school education. Hence it is very important to ensure that the sharing of ideas takes place in school, following each training. It is the Headmaster who has to take initiative to ensure such sharing. The responses of the HMs on ensuring sharing of ideas by teachers is given in table below:

Table 7.12

Ensuring that teachers share ideas they receive from training programmes

	Number of H.M.s	Percentage
Yes	175	97.22
No	4	2.22
No Response	1	0.56

From the table 7.12 it is evident that a vast majority of the H.M.s (97.22%) ensure that teachers share ideas they receive from training programmes whereas 2.22% do not do so.

It is imperative from the results that vast majority of H.M.s recognize the need for sharing of ideas by teachers following all training and they ensure it.

Learning situations for different level of students

While focusing on the majority of average students, the gifted students and students with learning difficulty are often ignored. This cause serious effects as the talents of the gifted students often go unreaped while the problems of slow learners remain unsolved. Hence it is the duty of the HMs to take necessary steps to ensure that proper learning situations are provided to each child according to their ability. The responses of HMs regarding the Steps taken by them to provide proper learning situations for students who face difficulties in learning and for gifted children are provided in the tables below:

Table 7.13
Steps taken by HMs to provide proper learning situations for
students who face difficulties in learning

	Number of H.M.s	Percentage
Special class for those who do not know to read and write	144	80
Use of ICT resources	4	2.22
Use special learning materials and resources	7	3.89
Providing learning materials	8	4.44
Providing work sheets	9	5
Providing special support	3	1.67
House visits and arranging conducive facilities at home	29	16.11
Peer group study	20	11.11
Providing financial support	4	2.22

It is understood from the table 7.13 that a vast majority of the H.M.s (80%) organize special classes for those who do not know how to read and write. Similarly, to provide proper learning situations for students who face difficulties in learning, H.M.s take the following measures - House visits and helping to arranging conducive facilities at home (16.11%); Peer group study (11.11%); Providing work sheets (5%); Providing learning materials (4.44%); Use special learning materials and resources (3.89%); Use of ICT resources (2.22%); Providing financial support (2.22%) and Providing special support (1.67%).

The results indicate that different measures are adopted by the schools for providing proper learning situations to children with learning difficulties, the most common programme being arranging Special class for those who do not know to read and write.

Table 7.14

Steps taken by HMs to provide proper learning situations for gifted students

	Number of H.M.s	Percentage
Quiz and other competitions	40	22.22
Encouragement	24	13.33
Library and extra reading materials	39	21.67
Additional work	10	5.56
Debates/ Seminars	1	0.56
Competitive examinations training	60	33.33
Expert classes	14	7.78
Use of Labs	8	4.44
Special (Extra) training	30	16.67
Scholarships	10	5.56
Giving more opportunities	12	6.67
Motivation classes	2	1.11
Supporting those who are backward	13	7.22
Field trips	2	1.11
Camps	4	2.22

It is understood from the table 7.14 that H.M.s take the following steps to provide proper learning situations for students who are gifted/ talented:- Competitive examinations training (33.33%); Quiz and other competitions (22.22%);Library and extra reading materials(21.67%);Special (Extra) training(16.67%); Encouragement (13.33%); Expert classes (7.78%); Supporting those who are backward(7.22%); Giving more opportunities(6.67%); Additional work(5.56%); Scholarships(5.56%);Use of Labs(4.44%); Camps(2.22%);Motivation classes (1.11%); Field trips (1.11%) and Debates/ Seminars (0.56%).

Therefore it is deduced that not much steps are taken by H.M.s for providing proper learning situations for students who are gifted/ talented. It is a sad truism that while the schools take up many programmes for the upliftment of students with learning difficulties, enrichment of gifted students to enhance their talents is not given much importance

It is startling to note that 1.67% of the H.M.s do not take any steps to provide proper learning situations for students who face difficulties in learning for various reasons as well as those who are gifted and talented.

ISM Monitoring at school

Table 7.15

Conduct of ISM review in school

	Number of H.M.s	Percentage
Yes	52	28.89
No	128	71.11

As seen in table 7.15, 71.11 % of HMs reported that ISM team had not paid monitoring visit to their school, while 28.89% replied in the affirmative.

Therefore it is interpreted that ISM visit was not paid in a vast majority of schools

Effectiveness of ISM monitoring visit

Table 7.16

Effectiveness of ISM monitoring visit

	Number of H.M.s	Percentage
Yes	51	98.08
No	1	1.92

Out of those HMs who reported that ISM team had paid visit to their schools, 98.8 % reported that the ISM monitoring visit was effective. This indicates that the ISM team could have given academic support to the school giving clarifications and suggestions regarding the various aspects of school activities.

Help and support received from ISM

As the name implies, Internal Support mission (ISM) is intended to give feedback and academic support on the school functioning. Suggestions and directions are expected to be given for making the school activities effective, if necessary. The responses of those head teachers, who reported that ISM team had paid visit to their schools, are given in table 7.17.

Table 7.17**Help and support received from ISM**

	Number of H.M.s	Percentage
Got directions for Quality improvement	10	19.61
Possibilities /Scope of TLM became clear	5	9.80
Improvement of Infrastructure	1	1.96
Improvement of Noon-meal	2	3.92
Started special training for backward students	10	19.61
Pointed out the deficiencies	9	17.64
Got directions for making classes effective	8	15.69
Empowerment of Teachers	5	9.80
School became disciplined and in order	1	1.96
Got directions for Activity- based learning	3	5.88
Enhancement of confidence of teachers	3	5.88
Enhancement of efficiency	2	3.92
Clearing of doubts	2	3.92
Got directions for conducting SRGs effectively	4	7.84

The table 7.17 offers the opinions of H.M.s regarding the help and support that they had received from ISM team in the following ways:- Got directions for Quality improvement (19.61%)Started special training for backward students(19.61%);Pointed out the deficiencies(17.64%);Got directions for making classes effective(15.69%)Possibilities /Scope of TLM became clear (9.80%); Empowerment of Teachers (9.80%);Got directions for conducting SRGs effectively (7.84%);Got directions for Activity- based learning (5.88%);Enhancement of confidence of teachers (5.88%); Improvement of Noon-meal (3.92%);Enhancement of efficiency(3.92%) Improvement of Infrastructure (1.96%);and School became disciplined and in order(0.56%).

Therefore it can be interpreted that the ISM team visit is effective in the sense that it helps for the improvement of school by rendering support in different areas , mostly giving directions for quality improvement, special training to backward students, and pointing out the deficiencies.

Suggestions given by the HMs for the improvement of ISM are as follows:-

- ISM should be conducted in all classes
- ISM should be conducted in all the three terms

- Follow-up Supervisions should be conducted
- ISM should be linked with Clusters and Teacher trainings
- ISM should include expert teachers
- Discussions based on evaluation should be conducted after (outside) school hours

Social relationship activities carried out in your school this academic year

The school curriculum envisages the extension of student activities to the society related to the knowledge and skills they had acquired at each stage. This gives practical experience to the student as well as help him to be the useful citizen of the society. There are different areas in which the students can be indulged as a social relationship activity. Responses of the HMs regarding the social relationship activities conducted at school are given in table 7.18.

Table 7.18

Social relationship activities carried out in school

	Number of H.M.s	Percentage
Cleanliness drive	161	89.44
Environment protection activities	150	83.33
Water resource management	53	29.44
Energy conservation activities	43	23.89

The table 7.18 shows that a vast majority of H.M.s took initiative to carry out Cleanliness drive (89.44%) and Environment protection activities (83.33%) whereas Water resource management and Energy conservation activities were done by 29.44% and 23.89% respectively.

Therefore it can be inferred that a vast majority of H.M.s carried out Cleanliness drive and Environment protection activities in their schools whereas other areas seem more or less given lesser importance. There are also minor areas suggested by very negligible proportion of the HMs under study which include:-

Distribution of learning materials

Distribution of Uniform

Sports meet for parents
Annual day celebrations/ Other celebrations
Vacation programmes
Development of Infrastructure
Activities against the use of drugs and intoxicants
Rally against wars
Awareness classes for parents
Agriculture activities
Opening day festival
Field trips
Home visits
Rendering help to old age homes
Charity works
Awareness on Road safety
Motivation classes
Drama camps
Reading by mothers

II.H. Focus Group Discussion: AEO

- Majority of the AEOs reported that they conduct monitoring of the academic activities and give support wherever and whenever needed. In addition to this they motivate teachers by appreciating their excellence.
- According to them majority of the teachers do not prepare teaching manual as envisaged in the teacher text. It is found that majority of the teachers feel difficulty in writing reflective notes and support is needed for
- Many of the teachers use teaching learning materials for making the classroom teaching effective. But some of the teachers are not even using the learning materials available in the school
- It is found that the major learning material used in the classroom is the textbook itself
- In more than half of the classes the teaching learning process takes place effectively. It is significant to note that certain classes are not at all effective.
- In majority of classes learning products are displayed. But only in certain schools the display of products are periodically updated. It is found that the majority of the teachers are not making use of these products later.
- Service of the teachers in a school is permitted for the smooth conduct of programmes like Youth festival and science fairs in other schools
- AEOs reported that during monitoring, they ensure whether due consideration is given to differently abled, slow learners, gifted students,
- Constant and continuous monitoring and support in organizing programmes and fairs related to art and physical education.
- AEOs reported that they give creative and valuable suggestions for the smooth conduct of PTA and SMC
- AEOs are involved in the programmes of village education committees actively
- All the AEOs reported that the internal Support Mission (ISM) visits were very much effective in enhancing the academic as well as administrative excellence.
- AEOs participate in the DRG training of the Cluster, and they monitor each cluster and make sure that the cluster is conducted as per the module
- The infrastructure facilities of the school as well as the classroom facilities are monitored and necessary suggestions are given for their improvement.

- AEOs ensure that the funds allotted to schools are properly utilized and the records are kept
- They monitor the noon meal programme and ensure that nutritious and hygienic food is given to the students without fail.
- Majority of the AEOs feel that team monitoring is more effective than individual monitoring as both administrative and academic aspects could be monitored within a single visits

Focus Group Discussion: PTA

- PTA Members reported that general body meeting will be conducted at the beginning of the academic year and executive committee meetings are conducted as and when required. Most of the executive members attend the executive meetings along with the teachers.
- MPTA and CPTA meetings are conducted for ensuring the security, quality of noon meal and to provide suggestions for academic improvement.
- MPTA and CPTA meetings are to be convened asper the convenience of parents. In addition to this awareness programmes are to be conducted.
- It is reported that the facilities such as classrooms/smart classroom, toilets, facilities for the differently abled, lab and library are available in most of the schools. But not sure about the utilization of smart classroom, lab and library.
- The major interventions made by them are donating books to the library
- Regarding the revised textbook, they reported that the text books are learner friendly, attractive and suitable for intellectual level to a certain extent. The activities included in the text book are learner friendly and practicable.
- They are unaware of the learning outcomes.
- Since there are no teachers to handle the subjects like art education, physical education and work experience, mostly students are exposed to playgrounds during these periods.
- No support is rendered by PTA for the CWSN students.
- PTA renders services to solve problems, if any.
- PTA is one of the essential components of school management
- PTA plays an important role in the availability and utilization of funds.

GROUP DISCUSSION – LEARNERS

Analysis based on interview/ G D: Learners

Involvement in classroom activities

Majority of learners reported that they are actively involving in classroom activities; mainly through group activities and the timely involvement of majority of teachers make the group activities active and alive. But in one of the schools in a sub district, learners are not getting much opportunity to involve in group activities.

Assistance provided by teachers in the classroom

Teachers assist the learners in group activities and in doing experiments. They also help the learners in clarifying the doubts. It is also reported that many of the teachers identify the learners who encountered with difficulties and take steps to provide necessary remedial measures.(for example most probably they are explaining the content with illustrations). Majority of teachers also give clues and hints while doing self-activities by learners.

Co-curricular activities

According to the learners, they are participating in various club activities like sports club, arts club, road safety club and they involve in the activities like conservation of nature and water, fairs, cleaning and waste management etc. They also reported that they do activities like model preparation, experimentation and work experience. It is interesting to note that they also do Pisciculture and vegetable farming in their schools.

Learning Aids/ Products

Learners reported that different types of learning aids like periscope, barometer, stethoscope and models are prepared by the teachers with the cooperation of learners and make use of them in the teaching learning process. Maps of different countries especially India is prepared and marked both by learners and teachers. These products are subjected to peer evaluation, self-evaluation and teacher evaluation. At the same time, in one district learners reported that they are not getting enough chances for the preparation of learning aids.

Text Books

Majority of the learners opined that they warmly welcome the newly developed textbooks and are satisfied with its color printing, pictures and maps. They agree that the textbooks are up to the level of learners. But they complained that they are not getting the textbooks within the prescribed time schedule.

Assistance provided from parents

A great majority of the learners agree that they get help from their parents for studying and ask them to study. Some of the students reported that their parents daily examine the note books and ask questions related to it. Some of them also help in doing homework and clear their doubts. For this they get advice from PTA meetings. A few learners reported that they are not getting any help from their parents.

Chapter - 3

FINDINGS AND SUGGESTIONS

Major findings of the study derived from the analysis of the data related to learning outcomes, learning resources, learning process, evaluation, adequacy of resources in textbook, classroom observation, answer sheet analysis and text book analysis of subjects Malayalam, English, Science, Mathematics and Social Science are represented as follows:

MALAYALAM

The findings of the study related to Malayalam are as follows:

I. Findings based on Learning Outcomes

1. Majority (94.19%) of Malayalam teachers of VII standard have clear idea regarding the characteristic features of the learning outcomes envisaged in the curriculum 2013. The remaining teachers (5.81%) need more clarity regarding the features of learning outcomes like short term and long term outcomes, outcomes attained through process oriented learning, learning outcomes that develop values, attitudes, and social commitment and that can be developed through collaborative learning.
2. It is found that 70.32% of Malayalam teachers couldn't ensure the expected learning outcomes in all the learners through the transaction of the content. Teachers adopt various teaching learning methods like remedial teaching, adaptation, provision for ICT usage, provision for extended activities, situational learning, peer tutoring, life experience and co-operative work for achieving the learning outcomes.
3. According to 64.54% of Malayalam teachers, it is noted that they are able to differentiate between short term and long term learning outcomes only to some extent level whereas 32.90% of teachers could differentiate short term and long term learning outcomes to a great extent level.
4. A great majority of teachers (93.55%) opined that spiralling of learning outcomes are ensured so as to ensure the continuity and development from lower to higher classes. The teachers who opined that the spiralling

is not done (6.45%) suggested to include the same group of teachers in preparing the textbooks from class I to VII to ensure spiralling.

5. Majority of the Malayalam teachers (92.26%) are of the opinion that the learning outcomes given in different units are observable and measurable whereas 7.74% of teachers have a difference in opinion.
6. Majority (65.16%) of teachers responded that they could understand the ideas/skills to be acquired from each unit of text book through learning outcomes to a great extent whereas 32.90% responded that they could understand the ideas/ skills to be acquired only to some extent level. It is noteworthy that 1.94% of the teachers couldn't understand the ideas/skills.
7. It is found that 46.45% of Malayalam teachers responded learning outcomes are age specific only to some extent. Comparatively similar percentage (50.97) opined that learning outcomes are age specific to great extent level whereas, it is 2.58% of teachers opined that the learning outcomes are not at all age specific.
8. It is found that 57.42% of teachers opined learning outcomes are helpful only to some extent for self-evaluation whereas 1.94% of teachers opined that the learning outcomes are not at all helpful for self- evaluation. Only 40.65% of teachers opined the same to a great extent level.
9. More than half of the teachers (52.90%) opined that the time bound completion of learning outcomes given in Malayalam textbook of class VII is not possible whereas, only 47.10% of teachers agreed that time bound completion of learning outcomes is possible in Malayalam.
10. Though majority of teachers (88.39%) opined that outcome focused methodology is helpful in ensuring the level of learning envisaged by RTE, it is noteworthy that about 12% of teachers disagreed.

II. Findings based on learning resources

1. Even though majority of teachers (more than 70%) favour most of the characteristics of the Malayalam textbooks such as framing of units considering the possibilities of varied learning strategies, adequate activities in appropriate

situations to enhance values and attitudes, opportunity to foster creativity, spirally arranged concepts, slots for ICT and pictures and layout arousing interest in learners and adequate follow up activities, 52.26% of teachers reported that activities considering different levels of learners are not given in the text book. According to a significant number of teachers, the content and the language used are not appropriate to the level of learners.

2. Though majority of teachers (more than 70%) support the teacher text in many aspects such as general approach of the curriculum, gives clarity in professional ethics to be practiced by the teachers, gives clear cut idea about the right based education as the part of the RTE act, suitable tools for evaluation is given and text book and the teacher text are complementary to each other and suitable additional information is given in teacher text, hints given for the transaction of the units are suitable, proper instructions are given for CE and TE, the reference books and sites referred in the Teacher Text are helpful for the teachers for the conceptual transaction of the lessons, whereas it is noted that half of the (53.55%) teachers reported that the division of periods given in teacher text is not suitable for its transaction.
3. The facilities pointed out by great majority of teachers (74 - 94%) are science club, science lab, mathematics club and reading corner, display boards, ICT, social science club, language lab, social science lab and science corner. The facilities such as mathematics corner and social science corner, are reported about half of the teachers.
4. Even though majority of teachers (more than 60%) reported that the content in the text books give due importance to the using of facilities like lab, library, ICT, display boards, Periodicals, club activities and reading corners to a great extent level, a significant percentage of teachers (more than 35%) reported that content in the textbook has given importance to these facilities only to some extent level.
5. More than 60% of teachers reported that suitable instructions are given in the Teacher Text to make use of ICT and library to a great extent level while for about 30% of teachers make use of these to some extent level. More than 50% of teachers reported that suitable instructions are given in Teacher Text to make use of lab and magazines periodicals, club, display board and corner to a great extent level while others to some extent level.

6. More than 60% of teachers reported that the following facilities library, club and lab can be used for providing learning activities to great extent level-Library (64.51%) Club (63.87%) Facilities such as lab, library, ICT, display board, periodicals, club and corner are used in schools to some extent level for providing learning activities to students.
7. Majority of teachers (70%-89%) reported that they are using, work sheet, local resources, and tables and reports other than Teacher Text and Text Book for teaching and learning, whereas diagrams are used by 41.29% of teachers, and materials given by local government and other agencies by 50.97%.
8. Majority of teachers (70.97%) reported that adaptation for CWSN is made by resource teachers. The other facilities which help in adaptation are text books and teacher text. Adaptation in infrastructure is carried out only by half of the teachers.
9. About 60% of teachers reported that instructions for framing necessary resources for art education are there in TeacherText to a great extent level while 47.10% to some extent level. It is found that 51.61% of teachers opined that in the Malayalam text book there are slots appropriate for conceptual transaction for Art education to great extent dimension while 47.10% teachers opined to some extent level. Above 62% of teachers opined that suitable tools and materials are in the schools for the given area and local resources could be made available in this area to some extent level whereas above 19% of teachers opined to great extent level.
10. It is found that teaching learning resources in the area of sports and health education are present in the TT only to some extent level.
11. It is found that teaching learning resources in the area of work experience are present in the TT only to some extent level.
12. Majority of teachers (90-98%) evaluate the products of learners, encourage learner's outstanding performance and reuse the products in class. It is significant to note that only a few teachers organize exhibition of learner's products in school assembly, cultural programs, BRC/ CRC level, Panchayath level and state level.

III. Findings based on learning process

1. Majority of the teachers (69.94%) experienced difficulties while planning learning activities.

2. 'Learning of the different levels of learners', and 'Integrating arts, sports, health and work experience' are two thrust areas that posed difficulty to majority of teachers. The other areas reported are slots for ICT, community bound activities and Life skills.
3. It is found that 90.32% of teachers of Standard VII sometimes ensured the development of Process skills in the learners through learning process, only 7.74% could always ensure it in the class. It is significant to note that few teachers not at all ensured the development of process skills.
4. According to 88.39% of Teachers, they plan and implement learning activities to attain conceptual clarity through multi-sensory experiences. However, 11.61% of the Teachers did not do so.
5. Majority of teachers (90.97%) reported that the curriculum is appropriate for enabling learners to apply the knowledge acquired through learning process in their daily life nearly one-tenth of them considered otherwise.
6. Majority of teachers (84.52%) made use of learning strategies appropriate to the content. However, 15.48% of teachers did not.
7. It is found that 60% of teachers did not plan and implement learning activities to overcome the constraints of slow learners.
8. Majority of the teachers (74.19%) were not able to ensure the attainment of learning outcomes in different levels of learners.
9. Majority(85.81%) of teachers implemented learning activities to enrich the abilities of gifted learners, 14.19% of them did not do so.
10. Majority(84.5%) of teachers sometimes ensured the maximum participation of all learners; only 13.55% always ensured full learner participation.
11. Although more than half (55.48%) of teachers always transacted the content in a learner friendly manner, 41.29% were sometimes learner friendly in content transaction. It is significant to note that that a few teachers (3.23%) were not learner friendly at all in content transaction.

IV Findings based on Evaluation

1. Even though majority (92.46%) of teachers got a clear idea about continuous assessment, about 7.74% teachers did not get the clarity. However, majority of teachers got a clear idea about continuous evaluation, simultaneously a significant

- number of teachers need clarity in Continuous Evaluation in assessment of learning process and portfolio assessment.
2. It is clear even though majority (65.81%) of teachers they are able to ensure learning and to provide support to learners through CE, 34.19% of teachers are not able to do so.
 3. Even though majority of teachers (67.10%) are able to carry out learning process and evaluation simultaneously a significant number (32.9 %) of teachers are not able to undertake the task successfully.
 4. It is noteworthy that a significant percentage of teachers (12.26%) reported that the indicators related to different areas of evaluation are not specific. Very few teachers reported that they need clarity in Assessment of Learning Process, Unit Assessment. A very few need clarity of indicators in and Portfolio Assessment.
 5. Majority of teachers (75.48%) find lack of time as their major problem in conducting assessment of learning process.
 6. Majority (94.84%) of teachers opined that they provide opportunities for self-evaluation and peer evaluation (81.94%) in learning process. It is significant to note that 18.06% of teachers are not providing any opportunity for peer evaluation.
 7. It is noteworthy that that 44.52% of teachers are giving indicators for evaluation directly instead of giving opportunities to students in the classroom. Majority of teachers (72.90%) used indicators developed in groups and some others used the indicators given in teacher text.
 8. It is clear that even though majority (89.03%) of teachers are providing opportunities to learners to present their product related to self-evaluation and peer evaluation, a significant number of teachers (10.07%) are not.
 9. Majority (78.71%) of teachers reported that they make necessary changes in the classroom process where as it is noted that 21.29% do not make any changes in the classroom process considering the learners evaluation. The suitable changes incorporated are giving due consideration to slow learners, peer teaching and evaluation, used ICT possibilities in evaluation, changes strategies in evaluation, editing activity enhanced to reduce spelling mistakes, simplifying activities for slow learners, giving more importance to creative writings and identifying slow learners and ensuring their improvement through “Munnettam”.

10. Class test (96.13%) and quiz(78.06%) are found to be the most popular tools used by teachers for unit evaluation. Along with open book test, teachers use variety of evaluation tools/ techniques like seminars, work sheets, creative writing and collections.
11. Majority of teachers (78 – 96%) consider different records such as Class Notebooks, Work sheets, Project/seminar reports, answer scripts, short notes and creative writings /assignment for continuous evaluation. Apart from the above said records the teachers use group activities, portfolio, collections, club activities, peer evaluation, presentations, excellence in co- curricular activities and class tests for continuous evaluation.
12. Even though majority of teachers are giving feedback based on CE for learners (96.13%) and for parents (79.35%) a significant number of teachers (20.65%) are not giving feedback on CE for parents.
13. Majority of teachers (90.97%) are providing remedial instruction based on feedback from Continuous Evaluation. It is noteworthy that 9.03% of teachers are not providing remedial instruction based on the feedback obtained from continuous evaluation for learners and parents.
14. Majority of teachers (81.29%) reported that they give supportive measures and follow up activities as part of remedial teachers. It is found that only half of the teachers are not giving importance to strategies like changing process and peer tutoring as part of remedial teaching. Other methods reported by the teachers are work sheets, extra classes, providing teachers version and contact with parents.
15. Even though majority of teachers accurately record the details of continuous evaluation, 37.42% of teachers do not accurately record the details of continuous evaluation.
16. From the analysis, it is clear that 60.65% of teachers are framing different strategies for CWSN learners.it is significant to note that 39.35% of teachers are not framing different strategies for CWSN learners. The special strategies adopted by teachers are providing activities using pictures (completing, labeling, coloring, etc.), activities which caters their interest, multidimensional activities, evaluating special abilities, easy and simple activities, simplified evaluation indicators, activities using multimedia, oral test and framing special modules.
17. Majority of teachers (92.90%) reported that they have clear awareness about Term Evaluation to a great extent level. At the same time 69.68% of teachers

reported that tools for TE are suitable for evaluating the learning outcomes while 67.74% opined that Term Evaluation includes variety of questions which give emphasis to thinking skills. Regarding the statements related to term evaluation it is noteworthy that 27.10% of teachers opined that the tools adopted for term evaluation are adequate only to some extent and 29.68% of teachers opined that term evaluation include variety questions which give emphasis to thinking skills.

18. Even though majority of teachers are not facing any difficulties related to TE (78.06%), a significant number of teachers have difficulties related to TE (21.94%).
19. It is significant to note that about half of the teachers (54.84%) are not able to conduct evaluation related to arts, sports and work experience effectively.
20. It is significant to note that about half of the teachers (45.16%) are not able to conduct evaluation related to arts, sports and work experience effectively.
21. Majority of teachers are carrying out evaluation and recording of socio-emotional areas like decision making (83.87%), empathy (80%), interpersonal skill (80%), communicative skill(78.06%), Self-awareness (77.42%), creative thinking (74.84%), Problem solving capacity (70.97%). It is important to note that a significant number of teachers are not yet carrying out evaluation and recording in coping with emotions (63.87%), critical thinking (59.35) and coping with stress (50.32%).
22. Majority of teachers are carrying out evaluation and recording of socio-emotional areas like decision making (83.87%), empathy (80%), interpersonal skill (80%), communicative skill(78.06%), Self-awareness (77.42%), creative thinking (74.84%), Problem solving capacity (70.97%). It is important to note that a significant number of teachers are not yet carrying out evaluation and recording in coping with emotions (63.87%), critical thinking (59.35) and coping with stress (50.32%).

V. Findings based on the Adequacy of Resources in the Textbook: Malayalam

Findings based on the adequacy of resources in the Malayalam text book for enhancing reading habit among learners, fostering literary aptitude among learners, inclusion of resources for creative writing in the text, use of activities for acquiring language skills, adequacy of teacher text for the effective transaction of concepts, facilities/techniques used

for acquiring language skills and observation regarding the difficulty while transacting discourses in the classrooms are given below

1. A great majority (93.55%) of teachers reported that only the activity of preparing review given in the Malayalam text book is adequate for developing reading habit among students while it is desirable to include provision for recitation, workshop for creative writing and identification of climax of compositions.
2. Even though majority (73.55 - 81.94%) of teachers reported that the provisions /resources for story writing, narration, appreciation, recitation, versification, conversation, description, title writing and story given in the text book are adequate for fostering literary aptitude among learners, only 57.42% teachers responded for puzzle/riddle framing.
3. It is found that a great majority (90.32%) of teachers reported that preparation of appreciation given in the text book are suitable for providing opportunity for creative writing, a significant number of teachers reported that activities like story completion (56.77%) and picture story (43.23%), suitable for creative writing are to be included in the text book.
4. Majority (76.13 – 80.65%) of teachers in Malayalam reported that recitation, role play, drawing coloring are the major activities used in the text book for acquiring language skills where as a significant percentage of teachers (59.32 – 68.39%) reported that activities such as storytelling, choreography and miming are given importance in the text book for acquiring language skills.
5. Majority (86.45%) of teachers have the opinion that the teacher textbook is adequate for effective transacting of the concepts. But it is noteworthy that 14.55% of teachers disagree with it.
6. It is understood from the teacher's responses that they are using club activities (85.52%), newspapers (83.87%) and school assemblies (73.55%) in schools to help the learners in acquiring language skills. But considerably less number of teachers uses the facility of language labs to help the learners in acquiring language skills.
7. It is significant that around 23% of teachers face difficulty while transacting discourses in the classrooms.

VI. Findings related to Class Observation: Malayalam

From the analysis, it found that among the classes observed the performance of teachers is almost average with regard to the components like Teaching Manual preparation, learning environment, and classroom intervention and evaluation process. Even though in certain classes observed, teachers used learning activities effectively. In a few classes it is found that learning activities were carried out mechanically and in some other classes it is observed that learning activities were dull and not suitable for attaining learning outcomes. In some of the classes it is observed that teachers are providing slots for learning activities to develop attitudes, values and social responsibilities stipulated in the content for intellectual and emotional development. A few teachers provided learning activities for intellectual and emotional development and advice and suggestions were the measures taken by some of the teachers for developing attitudes and values.

In majority of classes observed, teachers used easily accessible learning aids recommended in the curriculum and 25% of teachers used minimum number of learning aids already available in the school. It is serious to consider that 30% of teachers are not even using available infrastructure/ICT facilities. Even though in many of the classes observed, adequate activities/situations were provided it is noted that activities/situations provided by three teachers were not adequate for providing reflective thinking. About half of the classes observed the teachers consolidated group activities during and at the end of the class. But in few classes observed, teachers consolidated only at the end of the class. Majority teachers were seen using variety of strategies for evaluating learning outcomes based on the content. It is also seen that a significant number of teachers depend on certain evaluation strategies suggested in the text book.

The abovementioned findings highlight the need for empowering Malayalam teachers with necessary competencies and skills for making the learning process learner friendly.

VII. Findings based on Answer script Analysis of Malayalam :Error Analysis

Learners have less understanding about being creative, use of good language, and good writing style, unable to narrate experiences adeptly, to frame good and meaningful titles, inadequate vocabulary, less exposure to reading books and writers, and have no ability in expressing themselves in ornate language. They have lack of knowledge in expressing own observations and opinions effectively, lack skill in using good language and presenting things in good style, less exposure to reading and gaining experience from it, lack of interest in using writing skills, fail to punctuate properly and have not developed own style of writing, creativeness, power of imagination, and enough vocabulary.

VIII Findings based on Text book analysis: Malayalam

The findings based on the analysis of Malayalam text book of standard VII are given below.

- Some of the lessons and activities do not facilitate construction of knowledge among students. For example in Kerala Padavali Unit, the lesson ‘Alakanandayilevellaramkallukal’ does not encourage the learners to have a historical, social and cultural reading. In Unit 2, activities that create awareness about democracy, equality, violation of human rights and denial of justice and to create the skill of oratory are not included. In Unit 3, in the lesson ‘Kathivanoorveeran’ discussion on traditions, mythology or myths is not included. In the lesson ‘Adaykkaperukunnavar’ (People who pick arecanut), and ‘Njattuvapelapookal’ activities relating to nature, preservation of natural resources, cleanliness could have been included. Some of the lessons and activities are not adequate enough to attain the desirable learning outcomes. For example the lesson ‘AlakanandayileVellaramKallukal’ is not adequate enough to promote creative writing among learners. The lesson ‘PookkathirikkanEnikkavathilla’ doesn’t help in attaining learning outcomes like embellishment or images/imagery. Complexity of the lessons ‘Marthandavarma’ and ‘AsanthiyudeVenalileKuliru’ defers presentation of the lesson with its fullest moods or emotions, it is quite difficult to analyze and appreciate the peculiarities of the description or narrations. Activities do not

suffice in chapters like ‘PookathirikanEnikavilla’, ‘Veenapoovu’ and ‘Peach Poonthottam.

- Some of the content and activities given are not suitable for process oriented learning. ‘AzhicodeSamsarikunnu, EnikoruSwapnamundu’ – the lessons in Kerala Padavali, second unit is not good enough to lead the learners to the mesmerizing world of oratory. Instead of the usually given or traditional activities, varieties of activities that are contemporary and facilitate ICT learning are not at all given in any unit. In schools and classrooms, variety of learning activities in connection with celebration of days, festivals or study tours are done. But these are not extended to an appreciation level or development of writing skills most of the times. It is a fact that music and art can attract and influence the regions and also the living beings. Activities that create awareness among the learners about these are not included in the lessons. The lesson ‘VeenithalloKidakunnu’ is imagery in itself. There is no hint about that in the lesson or in the teacher text. Even though it is quite suitable for developing into a screenplay, no reference to that is given in the lesson.
- Language that helps to interact with learners should have been included in all the lessons. But in the present text book, it is not so. The language used in some of the units, entry activities and even in titles does not create interest among learners. The title ‘Mayaponman’ is not the standardized language. ‘Ponman’ will be mistaken for a bird. In fact the expression ‘Kanakamayamrigam’ was mistakenly translated into Malayalam as ‘Ponman’. The language used in lessons like ‘PookathirikkanEnikavathilla’, ‘KathivanoorVeeran’, ‘VeenithalloKidakunnu’, ‘AzhicodeSamsarikunnu’, ‘PalakadanKaattu’ in Kerala Padavali does not facilitate interaction with the learners. Lessons like ‘NammudeLokam Nam SrishtikunnaVellapokkam’, ‘Asanthiyude VenalileKuliru’, ‘MeenukaludeAkasavumParavakaludeBhoomiyum’ do not have the language that will facilitate interaction with the learners.
- Most of the pictures in Kerala Padavali and AdisthanaPadavali lack clarity. The pictures in Unit 1, ‘KathuvanoorVeeran’ of Unit 3 is unattractive, blurred, incomprehensible and illegible. The pictures of the lesson ‘KochanujanilaChechiyum’ in Unit 1 and Aswathi of AdisthanaPadavali are one and the same. It is difficult to infer the suitability of the picture in the

lesson 'NammudeLokam Nam Srishtikunnu'. In the lesson 'GanamKettaNeram' (Krishnagadha), the picture given will definitely mislead the children. The layout burdens the students more and is not friendly to nature.

- The poem 'PookathirikkanEnikavathilla' is above the level of learners of standard seven. The lessons 'AzhikodeSamsarikunnu', 'VeenithalloKidakunnu' are of high standard and even the gifted learners will find them difficult to grasp.
- In the first term TE, evaluation activities were repeated in 'Kerala Padavali' and 'AdisthanaPadavali'. After the self- evaluation worksheet given at the end of the lesson, space should be provided to the teacher to make entries regarding continuous evaluation of discourses and also to create awareness among parents
- Discrimination against a boy is shown in the lesson 'AlankanandayileVellaramKallukal'. But no activities are provided to make our children react to such discrimination in the lesson. The lesson 'KathuvannorVeeran', lacks activities that facilitate discussion about rights of children. Activities that create and awareness among learners that the bonding and tolerance we had in the past should be preserved, strengthened and passed over to others are not given to the learner.
- The relevance of democratic values should be hinted in the lesson 'AdakkaParakunnavan'. Moreover, the process of learning should progress using whatever slots available to cultivate such democratic values among learners
- The layout of the textbooks is not child friendly. The outer covering is unattractive and the quality of the paper used should improve. The present layout increases the usage of paper, thereby burdens the children and is harmful to nature.

IX Practical Difficulties encountered in different areas

A. Learning Outcomes.

- Teachers experienced difficulty in attaining clarity regarding the features of learning outcomes like short term and long term outcomes, outcomes attained through process oriented learning, learning outcomes that develop values,

attitudes, and social commitment and that can be developed through collaborative learning.

- Teachers couldn't ensure the expected learning outcomes in all the learners through the transaction of the content.
- The constraints experienced by the teachers for the time bound attainment of learning outcomes are the lack of sufficient time, excess content and the depth of the content.

B .Learning Resources

- The reasons pointed out by the teachers who disagree with the features of Malayalam text books are higher level of the content, use of difficult vocabulary and language, ambiguity, lack of clarity, blurred pictures, lack of appropriate learning activities for differently abled students, insufficient extended activities for enhancing creativity, inaccessible links/hints in the Text Book lack of slots to make use of library and language lab, lack of slots to make use of local resources and lack of activities which cater the heterogeneous group of learners.
- The difficulties pointed out by the teachers who disagree with the features of teacher text are lack of details in TT, lack of clarification of hard spots, lack of link talks and discussion points, lack of clarity in text related hints, lack of conceptual clarity in TT, lack of explanation for certain areas in the TB, lack of additional resources, lack of sample teaching manual ,lack of instructions for the preparation a TM, lack of proper training/awareness in CE, lack of time for recording CE, lack of proper instructions for CE related to each discourse, ambiguity in CE and TE, clarification regarding the cultural and historical backgrounds of the literary pieces provided in the TB is not given in TT, appropriate evaluation tools are not incorporated in TT, overcrowded classrooms, excessive number of activities, lack of time for processing discourse, lack of reference books suggested in the TT, lack of facility for visiting sites and lack of availability of reference books.
- The difficulties pointed out by the teachers for the utilization of facilities are inadequate facilities, lack of equipment, fund, shelves, time, contemporary literary pieces, sufficient computers, proper training to create awareness among the teachers , sufficient space to arrange reading corner, sufficient books and

furniture, subject specific magazines and periodicals, related CDs, proper training for handling ICT, internet and projector, separate room for ICT, display boards, sufficient subject related reference books and teachers.

- The difficulties with respect to art education pointed out by teachers are lack of special teachers in schools to carry out activities related to art education. They opined that this is due to the lack of training, time, financial aid and materials.
- The limitations pointed by teachers in are of physical education are lack of physical education teachers to handle sports, sufficient sports equipment, playground, fund and time. The teachers suggested appointing physical education teachers, providing the service of health worker in school and giving training to teachers to handle health education classes in schools to improve sports and health education.
- The limitations pointed out by the teachers are lack of teachers who are specially trained in carrying work education in schools and non-availability of raw materials to give training to learners. Teachers suggested that we can overcome this by appointing specialized teachers in work experience and by providing financial aid to schools to buy raw materials.

C. Learning Process

- Learning of the different levels of learners', and 'Integrating arts, sports, health and work experience' are two thrust areas that posed difficulty to majority of teachers.
- Some of the teachers experienced difficulties in using the strategies such as investigative learning, Meta cognition and critical thinking.
- Lack of time and Lack of facilities/materials were the major reasons reported by the Teachers. The other genuine difficulties reported by some of the teachers are poor infrastructure, poor family environment of the learners, and the attitude of learners and lack of interest in learning.
- Lack of time, lack of specially prepared learning materials and difficulty to plan and implement the activities for different level of learners are the reasons mentioned for not planning and implementing learning activities. Other reasons mentioned are lesser number of activities mentioned in the text books and lack of interest of parents.

- Lack of time' and 'Lack of specially prepared learning materials' were the reasons that were mentioned by more than one third of the Teachers of Standard VII who indicated that they faced difficulty while planning and implementing learning activities to overcome the constraints of slow learners. Teachers in Malayalam also pointed out following difficulties in planning activities to overcome the limitations of slow learners. They are presence of learners with high standard, continuous absenteeism of learner's environment and interest of the learners, lack of training and less number of activities in the text book and lack of interest of parents
- Difficulties reported by the teachers in the implementation of learning activities to enrich the abilities of gifted learners are lack of time, lack of suitable learning resources and difficulty in planning challenging learning activities. The remedial measures suggested by the teachers are need for more training and providing service of trained teachers.

D. Evaluation.

- The practical difficulties teachers encountered while conducting continuous evaluation to ensure learning and providing adequate support to learners are lack of time, complexity of learning process, overcrowded classrooms and lack of awareness.
- Practical difficulties encountered while carrying out learning process and evaluation simultaneously are due to giving more emphasis to learning process than evaluation, lack of proper planning and lack of timely availability of records
- Very few teachers reported that they need clarity in Assessment of Learning Process, Unit Assessment. A very few needs clarity of indicators in and Portfolio Assessment.
- Majority of teachers (75.48%) find lack of time as their major problem in conducting assessment of learning process. Other problems reported are overcrowded classrooms and lack of suitable criteria.
- The practical difficulties mentioned by teachers are lack of sufficient time, overcrowded classrooms, and lack of awareness of recording procedures, lack of timely availability of records and complexity in recording procedures

- It is found that a few teachers reported that they experienced difficulties related to term evaluation. The difficulties reported are inadequate evaluation strategies, difficulty in grading and difficulty in recording. Some other difficulties recorded are difficult in framing questions for all level of learners, supremacy of content related questions, and abundance of students, overload of content and lack of time.

E. Adequate resources of the Text Book.

- Teachers reported that activities like story completion and picture story, suitable for creative writing are not included in the text book.
- Teachers find difficulty in using the facility of language labs.
- Teachers face difficulty while transacting discourses in the classrooms.

F. Error Analysis

- Learners have less understanding about being creative, use of good language, and good writing style, unable to narrate experiences adeptly, to frame good and meaningful titles, inadequate vocabulary, less exposure to reading books and writers, and have no ability in expressing themselves in ornate language.
- Learners lack knowledge in expressing own observations and opinions effectively, lack skill in using good language and presenting things in good style, less exposure to reading and gaining experience from it, lack of interest in using writing skills, fail to punctuate properly and have not developed own style of writing, creativeness, power of imagination, and enough vocabulary.

G. Text Book Analysis

- The contents of the textbook do not have justice to constructivist approach.
- The contents/lessons of the text are not suitable for process oriented learning.
- Hints that help in time bound completion of activities is not included in textbook or teacher text
- Learners do not have the possibility to explore of news reading in visual and audio media
- Contemporary and variety learning activities which facilitate ICT usage is not included.

- Activities that create awareness among the learners about art, sports, health and work experience is not included in the lessons.
- Pictures given in the textbook are not attractive.
- After the self- evaluation worksheet given at the end of the lesson, space is not provided for the teacher to make entries regarding continuous evaluation of discourses and also to create awareness among parents.
- There are no reference/hints about rights of children.
- Provision for strengthening the values of democracy and secularism among the children is not given.
- Activities that make our learners act as good Samaritans, within the limitations is not given.
- Evaluation of language approach, growth of discourses and language along with each unit to convince teachers are not included.

F. Suggestions emerged out of the study

A. Learning outcomes

- The teachers suggest that they need more clarity in learning outcomes like short term and long term outcomes, learning outcomes that develop values, attitudes, and social commitment and that can be developed through collaborative learning to get clear idea regarding the characteristic features of the learning outcomes envisaged in the curriculum 2013
- Teachers suggest various teaching learning methods like Remedial teaching, adaptation, provision for ICT usage, provision for extended activities, situational learning, peer tutoring, life experience and co-operative work for achieving the learning outcomes.
- The teachers who opined that the spiralling is not done suggest to include the same group of teachers in preparing the textbooks from class I to VII to ensure spiralling.

B. Learning resources

- The teachers suggest reducing the content and using language suitable for the age level of learners.
- The notable suggestions given by the teachers are to provide sufficient books and furniture, reference books, display board, subject specific magazines and periodicals contemporary literary pieces, modern facilities, financial aid for improving library facilities, separate room for library, provide financial aid to aided schools by government, SSA and RMSA, provide computers for both UP and HS, financial aid for buying computers, separate smart classroom as well as ICT enabled classrooms, equip them with adequate ICT training, provide with subject related CD's and projections, provide free periodicals to all schools, allot separate period for club activities and reduce the content and activities in the TB to make the club activities more effective.
- They suggested appointment of specialized teachers for teaching art education in schools and rendering help from local bodies to overcome these limitations.
- The teachers suggested appointing physical education teachers, providing the service of health workers in school and giving training to teachers to handle health education classes in schools to improve sports and health education.
- Teachers suggested that we can overcome this by appointing specialized teacher in work experience and by providing financial aid to schools to buy raw materials.

C. Learning process

- Major remedial measures suggested by teachers to overcome difficulties experienced by them were that expert teachers in the field of arts, sports and work experience need to be appointed; the Life skills and attitudes to be attained by the learners are to be fixed earlier and required materials should be provided; classrooms should be converted to smart class rooms and its utilization are to be ensured; learning materials should be improved and should be acceptable to all; government has to provide aid for learning resources; teachers having expertise in handling the differently abled should be appointed and, CE should be recorded term-wise.

- Some teachers suggest that students having interest in each area have to be identified, give them training and allot more time for their learning. Few teachers suggest that model of teaching module for all lessons should be given to all teachers. Some teachers request to provide methods to solve the problem of time frame. Some teachers are of the opinion that many learners are below the average level. Some say that more vocation oriented learning by promoting the skills of the learners is to be provided.
- Few teachers say that the existing training programs have to be made more effective. The hard spots have to be identified and necessary support should be given in the cluster level trainings after preparing correct training modules. Some teachers suggest that all the required equipment should be provided. More permanent teachers have to be appointed.
- Some teachers are of the view that the instructions and explanations for possibilities given in the teacher text are insufficient. Few teachers are of the view that there should be time bound planning of activities. The awareness programs should be made more effective. Some teachers demand for reducing the content.
- The remedial measures suggested by the teachers are need for more training and providing service of trained teachers to enrich the abilities of gifted learners.

D. Evaluation

- Suggestions put forward by teachers for improvement regarding the areas of continuous evaluation strategies are need of more planning, providing suitable worksheet for lessons and need more clarity in recording
- The suitable changes incorporated are giving due consideration to slow learners, peer teaching and evaluation, used ICT possibilities in evaluation, changes strategies in evaluation, editing activity enhanced to reduce spelling mistakes, simplifying activities for slow learners, giving more importance to creative writings and identifying slow learners and ensuring their improvement through “Munnettam”
- The suggestions given by teachers are the appointment of trained teachers in arts, sports and wok experience to ensure the effective evaluation, providing sufficient time to practice these subjects, providing separate period for teaching

these areas and providing evaluation tools/ worksheets for evaluating these subjects.

F. Adequacy of resources

- It is desirable to include provision for recitation, workshop for creative writing and identification of climax of compositions
- A significant number of teachers reported that activities like story completion and picture story, suitable for creative writing are to be included in the text book.
- A significant number of teachers reported that activities such as storytelling, choreography and miming are given importance in the text book for acquiring language skills.

G. Classroom observation:

- Teachers need to prepare the TM using additional resources and creative activities other than the activities provided in the Text Book and Teacher Text. So teachers should be trained accordingly for the same.
- Teachers need to provide variety of learning activities to reinforce adequate pre-requisites to all learners.
- In order to create interest and motivation among the learners, teachers need to be empowered to provide life-oriented and thought provoking activities like description and stories.
- Learning activities need to be child oriented. Spontaneous progress in learning and timely recording in the TM is suggested.
- It is advisable to use different types of learning aids /available infrastructure /ICT to make the class interesting.
- Teachers need to provide slots for learning activities to develop attitudes, values and social responsibilities for intellectual and emotional development in learners.
- Teachers may intervene with all types of learners as mentors rather than teachers.
- It is suggested that teachers need to provide opportunity for reflective thinking in the concerned class itself and provide remedial measures.
- It is suggested that consolidation is needed at the end of every learning activity.
- Variety of strategies for evaluation need to be adopted.

F. Answer script analysis of Malayalam: Error Analysis

- Students need more understanding about being creative, use of good language, and good writing style.
- Students need proper instructions to narrate experiences adeptly. And they have to enrich their vocabulary.
- Students find it difficult to frame good and meaningful titles.
- Students need to develop reading habit.
- Students need to know how to punctuate properly.
- Students need to enrich their ability in expressing themselves in ornate language.

G. Suggestions for the improvement of Malayalam Textbook.

- The contents of the textbook should do justice to constructivist approach.
- The contents/lessons of the text should be suitable for process oriented learning.
- Hints that help in time bound completion of activities should be included in textbook or teacher text
- Students should be able to explore the possibility of news reading in visual and audio media
- Contemporary and variety learning activities which facilitate ICT usage are to be included.
- Activities that create awareness among the learners about art, sports, health and work experience need to be included in the lessons.
- Pictures in the textbook need to be attractive.
- After the self- evaluation worksheet given at the end of the lesson, space should be provided to the teacher to make entries regarding continuous evaluation of discourses and also to create awareness among parents
- This will also help the child and the parents to understand that the child actively participates in continuous evaluation activities. Rather than making profile writing a mere description of an individual, there should be activities that elevate it to the level of creative writing. The profile should also link the lesson with the literary works and a model of such a profile should be given in Teacher Text.
- There should have been reference/hints about rights of children.

- It should be examined whether the lessons strengthen the values of democracy and secularism among the children.
- Activities that make our learners act as good Samaritans, within the limitations they have, should be given.
- It would be better to include evaluation of language approach, growth of discourses and language along with each unit to convince teachers.
- The teacher text should rise to the level of a reference text enabling transaction of learning activities and organization of class room activities.

ENGLISH

The findings of the study related to English are as follows:

I. Findings based on Learning Outcome

1. Majority (86.45%) of teachers in English have clear idea regarding the characteristic features of the learning outcomes envisaged in the curriculum 2013. The remaining teachers (13.55%) need more clarity in features like short term and long term achievement, activity oriented learning, inclusive education and ICT based education.
2. It is found that 76.13% of teachers couldn't ensure the achievement of the expected learning outcomes through the transaction of the content. A minor percentage (23.87%) could ensure this through the transaction of the content. Teachers adopt peer tutoring, IT possibilities, group work, local text, etc. for achieving the learning outcomes in an effective way.
3. Majority of teachers (70.32%) in English are able to differentiate short term and long term learning outcomes only to some extent level whereas a significant number of teachers (27.10%) could differentiate the short term and long term achievements at great extent level.
4. Majority (83.87%) of teachers agreed that the spiralling of learning outcomes is ensured in the continuity and development from lower to higher classes whereas 16.13% of teachers reported that that the spiralling of learning outcomes are to be arranged more effectively to ensure the continuity and development of it from lower to higher classes.
5. Majority of teachers (87.10%) are of the opinion that the learning outcomes given in different units are observable and measurable whereas 12.90% of teachers disagreed with this.
6. More than half (54.84%) of English teachers could understand the ideas/skills to be acquired from each unit through the learning outcomes to a great extent level whereas 41.29% responded that they could understand the ideas/skills to be acquired only to some extent level. A significant number of teachers (3.87%) could not understand the ideas/ skills to be acquired from each unit.

7. It is noted that 58.71% of teachers responded that learning outcomes are given according to the age level of learners only to some extent level whereas 38.06% reported that learning outcomes are age specific to a great extent level. However .23% of teachers opined that the learning outcomes are not at all age specific.
8. Majority (61.29%) of teachers have the opinion that the learning outcomes are helpful for self-evaluation to some extent level whereas 34.19% of teachers opined the same to a great extent level . However, 4.52% of teachers opined that the learning outcomes are not at all helpful for self- evaluation.
9. Majority (65.16%) of teachers reported that the time bound completion of learning outcome is not possible while 34.84% of teachers opined that time bound completion of learning outcomes is possible in English.
10. Majority of teachers (83.23%) opined that the outcome focused methodology is helpful in ensuring the level of learning envisaged by RTE. It is noteworthy that about 17% of teachers have the opinion that the outcome focused methodology is not helpful in ensuring the level of learning envisaged by RTE.

II. Findings based on Learning Resources

1. Even though majority (more than 65%) of teachers favour most of the characteristics of the English textbook such as conceptual clarity, adequate learning activities to achieve the learning outcomes, clarity of pictures and lay out, arouse interest in learners, opportunity is provided to foster the creativity of learners , units are framed considering varied learning strategies, have slots for using ICT for effective learning and concepts are arranges spirally, adequate activities are given in appropriate situations to enhance values and attitudes in learners, opportunities are there to enhance creativity of learners and follow-up activities are mentioned, content are appropriate to the mental level of the learner and language used is appropriate to the level of learners whereas 41.94% of teachers opined that those activities considering different levels of students are not present in the English text book.
2. Even though majority (more than 89%) of teachers support the teacher text of English in many aspects, such as text book and the teacher text are complementary to each other, hints given in the teacher text are suitable for transacting lessons, teacher text helps in preparing TM, specific instructions are given for TE and CE, suitable tools for evaluation are given, reference books and different web sites given in the

teacher text are helpful for the transaction of lessons, gives clear idea about the Right based education envisaged by RTE act, helps the teacher in attaining clarity in the general approach of the curriculum, provides clarity in professional ethics to be practiced by the teachers and additional information is provided for the suitable transaction of the lesson and instructions are given in teacher text for CE and TE, whereas 60.65% of teachers reported that the division of periods given in teacher text is not suitable for its transaction.

3. Majority of teachers (above 80%) reported that the facilities such as Science club, Social science lab, Language lab, Mathematics club, Science lab, Reading corner and ICT are present in their school. Above 70 % of teachers reported that they have display board and Mathematics lab in their school. Above 49 – 59% teachers reported that Science corner, Social science lab, Mathematics corner and Social science corner are present in their school.
4. Majority of teachers 61.94% and 58.71% of teachers reported that the content in the English text book has given importance to great extent level to utilise ICT and club while above 35% opined to some extent to these facilities. Above 50% of teachers reported that content in the text book has given importance to great extent to make use of periodicals and library while above 40% of teachers opined these to some extent level. More than 40% of teachers reported that content in the English text book has given importance to a great extent for utilizing facilities such as lab, display board and Corner while about 50% of teachers opined them to some extent level.
5. More than 60% of teachers reported that suitable instructions are given in TT to make use of ICT, club and lab to a great level while above 30% opined that there are provisions to make use of these to some extent level. More than 50% of teachers reported that suitable instructions are given in TT to make use of library and display board to a great level whereas about 46.77% of teachers reported to some extent level. Almost same percentage (about 50%) of teachers reported that suitable instructions are given in TT to make use of periodicals and corner to great extent level as well as some extent level.
6. More than 50% of teachers reported that the following facilities such as ICT, lab and Periodicals can be used for providing learning activities to great extent level while more than 50% of teachers opined that they make use of library and club for Providing learning activities to some extent level. Above 45% of teachers opined

that the facilities such as display board, club, corner and library are used to a great extent level for providing learning activities while more than 42% of teachers reported that they make use of lab, display board, periodicals and corner to some extent level.

7. Majority of teachers (70%-89%) reported that they are using remedial materials prepared by the teachers themselves, worksheets, tables and local resources other than TT and TB. Reports are used by 65.16% of teachers, and materials given by local government and other agencies by 48.39% and diagrams by 41.94% of teachers respectively. The additional materials reported by teachers are magazines, field trips, paper cutting, gifts for encouragements, daily news quiz.
8. Majority (72.26%) of teachers reported that the adaptation for CWSN is made by resource teachers. The other facilities which help in adaptation are TB and TT. Adaptation in infrastructure for CWSN is carried out only in 50% of schools.
9. More than 50%(54.84%)of teachers opined that in the English text book there are slots appropriate for conceptual transaction for Art education to great extent dimension while 38.71% teachers opined to some extent level. About 54.22% of teachers reported that instructions for framing necessary resources for art education are there in TT to a great extent level while 44.52% to some extent level. Above 63% of teachers opined that suitable tools and materials are in the schools for the given area and local resources could be made available in this area to some extent level whereas about 20% teachers opined to great extent level. It is significant to note that about 15% of teachers reported that suitable tools and materials are not present in the schools for the given area local resources are not at all available in the school. It is also found that 49.03% of teachers opined that TT for this area is effectively used in schools to some extent level whereas 44.52% of teachers opined to great extent level. However 50.32% of teachers opined that activity books are used effectively to some extent level 44.52% opined to great extent level .
10. Regarding Sports and Health, 53.87% of teachers opined that slots appropriate for conceptual transaction are provided in the TT to a some extent dimension while 44.19% teachers opined to great extent level. About 49.68% of teachers reported that instructions for framing necessary resources for Sports and Health are there in TT to a some extent level and 45.16% of teachers to some extent level. Only 30.32% teachers opined that suitable materials related to Sports and Health are available in the school to great extent while 61.94%% reported that resources are available to

some extent level. Very few (18.06%) reported that local resources are not at all available in their schools while 51.61% reported it to some extent level. About 49.03% of teachers reported that they make use of TT for the area to a some extent level while about 43.23% to great extent level. About 41.94% of teachers reported that they make use of activity book to a some extent level whereas 41.61% teachers opined to great extent level.

11. It is found that 52.90% of teachers opined that in the English text book there are slots appropriate for conceptual transaction of area related to work experience are provided in the TT to a some extent dimension while 43.23% teachers opined to great extent level. About 55.48% of teachers reported that instructions for framing required resources are provided in TT of different subjects to some extent level and 40.65% teachers to a great extent. Only 29.03% teachers opined that suitable materials related to art are available in the school to great extent while 53.55% reported that resources are available to some extent level. Very few (17.42%) reported that suitable materials are not in the schools for the given area. Very few (14.84%) reported that local resources are not at all available in their schools while 54.19% reported it to some extent level. About 50.97% of teachers reported that they make use of TT for the area to some extent level while 41.93% to great extent level. About 49.03% of teachers reported that they make use of activity book to some extent level and 45.16% teachers opined to great extent level.
12. Majority of teachers (greater than 90%) evaluate the products of learners, encourage learners outstanding performance and reuse the products in class. It is significant to that a great majority of teachers reported that they conduct exhibitions at school level, BRC, CRC, level and competition in the CRC, BRC, State, Panchayath level, School assembly and cultural programmes.

III. Findings based on Learning Process

- 1) Majority (63.23%) of teachers experienced difficulties while planning learning activities whereas 36.77% mentioned that they did not experience any difficulty.
- 2) Learning of the different levels of learners', and 'integrating arts, sports, health and work experience' are two thrust areas that posed difficulty to more than fifty percentage of English Teachers while planning the learning activities. The other areas reported are slots for ICT, Community bound activities, continuous evaluation, life skills, areas to develop social commitment, learning outcomes, utilising learning resources and values/ attitudes.

- 3) Majority (84.52%) of English teachers sometimes ensured the development of Process skills in the learners through learning process. Only 9.68% could always ensure it in the class. It is significant to note that a few teachers(5.81%) not at all ensure the development of process skills in the learners through the learning process.
- 4) Majority (85.16%) of teachers planned and implemented learning activities to attain conceptual clarity through multi-sensory experiences. However a significant percentage (14.84%) of teachers did not do so.
- 5) Majority (83.87%)of teachers reported that curriculum is appropriate for enabling learners to apply the knowledge acquired through learning process in their daily life whereas 10.13% of the English Teachers considered otherwise.
- 6) Majority (89.68%) of teachers made use of learning strategies appropriate to the content. However 16.13% of Teachers did not use them appropriately.
- 7) Difficulties experienced while making use of learning strategies include Meta cognition Investigative learning, Inductive thinking, Critical thinking, Collaborative learning, Method of concept acquisition and Co-operative leaning.
- 8) The reasons reported by the English Teachers for experiencing difficulty while making use of appropriate learning strategies as evident are: lack of time (67.74%), lack of facilities/materials (41.29%), practical difficulty (33.55%) and lack of training (10.32%).
- 9) Only less than half of English Teachers (49.03%) planned and implemented learning activities to overcome the constraints of slow learners, whereas more than half of them (50.97%) did not.
- 10) Majority (68.39%) of teachers did not ensure the attainment of learning outcomes in different levels of learners whereas only 31.61% were able to do so.
- 11) Majority of (77.42%) teachers implemented learning activities to enrich the abilities of gifted learners whereas 22.58% of them did not do so. The reasons reported by the teachers for not being able to implement learning activities to enrich the abilities of gifted learners effectively were: ‘difficulty in planning challenging learning activities (17.42%), lack of time (10.32%), lack of suitable learning resources (9.68%) and lack of training (4.52%).
- 12) Majority (80%) of teachers sometimes applied suitable learning strategies to ensure the participation of all learners whereas 17.42% were always able to it apply them. 2.58% were not at all able to apply the learning strategies which ensured the participation of all learners.

- 13) Although 50.32 of teachers always transacted the content in a learner friendly manner, 46.45% were sometimes learner friendly in content transaction. It is significant to note that only a few teachers (3.23%) were not at all learner friendly in content transaction.

IV. Findings based on Evaluation

- 1) Even though majority (88.39%) of teachers got a clear idea about continuous Evaluation, about 11.61% teachers did not get the clarity. But a significant number of teachers need clarity in all the areas in Continuous Evaluation. It is followed by Unit Assessment, Portfolio Assessment, and Recording.
- 2) Majority of teachers in English (60%) are able to ensure learning and to give support to the learners while carrying out CE. At the same time 40% teachers reported that they could not.

It is clear that even though majority(70.97%) of teachers are able to carry out learning process and evaluation simultaneously a significant number of teachers(29.03%) are not able to undertake the task successfully.

- 3) Majority (87.10%) teachers reported that the indicators given to the areas for evaluation are specific while 12.9% teachers reported as not specific. Very few teachers reported that they need clarity in Unit Assessment, indicators in Portfolio Assessment and Assessment of Learning Process.
- 4) Majority (69.68%) of teachers in English reported that the main problem faced by them during assessment of learning process is lack of time and 40% teachers reported overcrowded classrooms as their main problem. At the same time a few teachers(below 10%) faced problems due to lack of suitable criteria ,lack of awareness to the teachers and lack of planning.
- 5) A great majority (94.84%)of teachers provide opportunities for self-assessment and 77.42% for peer assessment. But it is significant to note that 5.16% of teachers are not at all providing any opportunity for self -valuation and 22.58% for peer evaluation.
- 6) Majority (65.16%) of the teachers framed indicators for assessment through classroom discussion whereas, 42.58% of them gave the indicators for assessment directly. Only a very few (10.97%) opined that the indicators for assessment were prepared by students themselves.

- 7) A great majority of the teachers (89.68%) provided ample opportunity to learners to present their products related to self-assessment and peer assessment. At the same time 10.32% didn't.
- 8) Majority of the teachers (81.29%) opined that they make suitable changes in the classroom process considering the learner's assessment where as 18.71% are not making necessary changes.
- 9) Class test is widely used by majority (87.10%) of the teachers for unit evaluation whereas 54.84% of the teachers use quiz as a tool for unit wise evaluation. Open book test technique was employed by 35.48% of the teachers. Other techniques used are seminar, debate, discussion, visuals, picture cards and recitation.
- 10) Note books are one of the records considered by majority of the teachers (91.61%) for continuous evaluation. More than 75% of the teachers considered the learners' worksheet (79.35%), short notes (78.06%), writings (76.77%) and answer sheets of unit wise assessment(76.13%) for continuous evaluation. Below 70%of the teachers considered project and seminar reports for continuous evaluation. Apart from these group activities, portfolio, performance, discourse writing, oral evaluation and excellence in co-curricular activities are other areas considered for continuous evaluation.
- 11) A great majority of teachers (96.77%) reported that they provide feedback based on continuous evaluation for learners while 74.84% teachers for parents. It is significant to note that 25.16% of teachers are not giving feedback to parents and very few teachers not to learners also. It is serious to consider this since feedback to learners is very important in learning process.
- 12) A great majority of teachers (85.81%) in Mathematics reported that they are providing remedial instruction based on feedback from Continuous Evaluation,while14.19% teachers are not providing remedial instruction.
- 13) Majority (66.45%) of the teachers used supportive measures as part of remedial teaching whereas 60.05% of teachers employed continuous activities for remedial teaching. It is found that 51.61% of the teachers used peer tutoring method for remedial teaching. A considerable number (36.13%) of teachers changed the process of teaching for remedial teaching.

- 14) Majority (70.32%) of teachers reported that they are accurately recording the details of the continuous evaluation. While 29.68% reported that they are not recording the details of CE
- 15) More than fifty six percentage (56.13%) of teachers reported that they are not framing separate strategies of evaluation for CWSN learners whereas 43.23% of teachers are framing separate strategies of evaluation for CWSN learners. The special evaluation strategies adopted for CWSN are providing activities using pictures for completing, labeling and colouring, multidimensional activities, jigsaw puzzle, acting, worksheets, framing special modules and oral test. The product of these activities are recorded and exhibited in class PTA.
- 16) Majority of teachers (89.03%) reported that they have clear awareness about TE. At the same time 75.48% of teachers reported that tools for TE is suitable to great extent for evaluating the learning outcomes while 72.26% opined that TE includes variety of questions which give emphasis to thinking skills to a great extent level.
- 17) Even though majority of teachers are not facing any difficulties related to TE, where as a significant percentage (17.42%) of teachers have difficulties related to TE.
- 18) It is significant to note that more than half of the teachers (56.13%) are not properly conducting evaluation related to art, sports and work experience.
- 19) Even though majority (89.03%)of teachers are evaluating and recording socio-emotional areas like interpersonal skill, decision making ,self-awareness and communication skill ,a significant number of teachers are not yet carrying out evaluation and recording in these areas. It is important to note that a significant number of teachers are not carrying out evaluation and recording of socio-emotional area like empathy, problem solving skill, creative thinking, critical thinking, and coping with stress under socio emotional areas.

V. Findings based on Adequacy of Resources in the Text book: English

Findings based on adequacy of resources in the text book for enhancing reading habits, fostering literary attitude, creative writing and acquiring language skills are given below:

- It is found that the activity of preparing appreciation note (78.71%) and summarizing content (78.06%) given in the English text book are adequate for enhancing reading habit among learner ,while more than sixty percent of teachers reported the activities like collection of similar composition and post reading

activities as suitable for the learners. Other resources reported by teachers are comparison of similar composition, identification of climax of compositions, workshop for creative writing, storytelling and recitation.

- It is found that 81.94% and 79.35% of teachers respectively reported that the provisions /resources for story writing, and recitation and , description and conversation writing provided in the text book are adequate to foster literary aptitude among learners . It is followed by description, title writing and story writing. Appreciation, recitation, poetry completion, foot note writing, storytelling, and puzzle/riddle framing are the other resources reported by teachers.
- Majority of teachers(70%-90%) reported that conversation writing , ,preparation of appreciation, narrative writing , story completion , poetry completion, card making, picture reading, description notes, picture story and script writing are included in the text book for providing opportunity for creating writing .. The other activities reported are foot note writing (58.06%) and criticism writing(53.55%).
- It is found that 91.61% of teachers reported that role play given in the textbook are useful for acquiring language skill. It is found that story telling(72.26%),recitation(69.68%) choreography(68.39%), miming (61. 29%) and colouring(55.48%) are the other activities reported by the teachers.
- Majority of teachers (86.45%) responded that the teacher text is adequate for effective transaction of the concepts given in the text book. It is also seen that 13.75% of teachers reported that the teacher text is not adequate for the effective transaction of concepts.
- Club activities (89.68%), newspaper(76.13%) school assembly(69.68%) and language lab(43.81%) are the facilities used by teachers for acquiring language skills.

VI. Findings related to Class Observation

- From the analysis it found that among the classes observed the performance of teachers is almost average with regard to the components like Teaching Manual preparation, learning environment, and classroom intervention and evaluation process. It is observed that only a few teachers provide a variety of learning activities to get adequate pre-requisites to all learners.
- Even though in certain classes observed, teachers used learning activities effectively, it is not found in majority of classes. In a few classes it is found that learning

activities were carried out mechanically and in some other classes observed, learning activities were dull and not suitable for attaining learning outcomes. In some of the classes observed, teachers are providing slots for learning activities to develop attitudes, values and social responsibilities stipulated in the content for intellectual and emotional development. A few teachers provided learning activities for intellectual and emotional development and advices and suggestions were the measures taken by some of the teachers for developing attitudes and values.

- In majority of classes observed, teachers used easily accessible learning aids recommended in the curriculum and 25% of teachers used minimum number of learning aids already available in the school. It is serious to consider that 30% of teachers are not even using available infrastructure/ICT facilities. Even though in many of the classes observed, adequate activities/situations were provided it is noted that activities/situations provided by three teachers were not adequate for providing reflective thinking. About half of the classes observed, consolidated group activities could be found during and at the end of the class. But in few classes observed, teachers consolidated only at the end of the class. Majority of teachers were seen using variety of strategies for evaluating learning outcomes based on the content. It is also seen that a significant number of teachers depend on certain evaluation strategies suggested in the text book.
- The above mentioned findings high light the need for empowering English teachers with necessary competencies and skills for making the learning process learner friendly.

VII. Findings based on Answer Script Analysis of English: Error Analysis

Learners are not able to analyze a new poem. They couldn't express ideas sequentially without digression and could not use connectives and pronouns properly to maintain coherence. Majority of learners could not express ideas with cohesion by using all the relevant details of the person and do not attempt all question. Learners are not able to write a profile with all its features and diary with all its features including verities of sentences. Learners do not have clear idea about morphological aspects and are not able to write a story with all features.

VIII. Findings based on Text Book Analysis: English

The findings based on the analysis of English text book of standard VII are given below:

- There are six units in 7th Standard English text book. This text book is relevant and suitable to the age for developing basic skills. Four units are in tune with the Kerala School Curriculum and Philosophical foundation of constructivism. A nonfiction in unit 3 (Man and Media) and another non- fiction in unit 4 ‘Village Pooram’ are not in tune with constructivism. Some parts of unit III Man and Media (Story of message and a Non-fiction Village Pooram) in unit 4 are not in tune with curriculum and philosophical foundation of constructivism because these reading passages are too lengthy.
- All lessons and activities are adequate enough to attain the desirable learning outcomes. Unit 1, 2 and 3 are loaded with language elements. It will hinder the natural way of learning. The meaning-making process of the TB given has to be done in such a way that every learner gets a chance to listen, speak, read and write in the target language. Through a series of learning activities in each unit, the L O evolve and that become the LO of a particular class towards the end of the academic year. The new Text Book gives great importance to children’s literature. Authentic pieces of children’s literature, adapted versions of wellknown stories and stories developed by the text book writers are included. Unit 1, 2, 3, 4, 5, 6 are sufficient to achieve Learning Outcomes
- There are six units in 7thstandard English Text Book. All the stories, 5 poems and three Non-fictions are suitable for process oriented learning. Non-fictions like The Story of message, Village Pooram, Autobiography of Michel Jackson, Profile of A R Rahman, Daddy fell in to pond (poem) are suitable for process oriented learning. A child is born with natural abilities to learn from his surroundings. The formal education that the child gets from school should open up possibilities to look at the world from a new perspective, to understand, interact and evaluate it.
- Learning resources are essential for the effective transaction of curriculum. Instead of the traditional activities, varieties of activities and various strategies are used to attain Learning Outcomes in all units. Activities to interpret and analyse pictures, to conduct debates and discussions, to read, comprehend and analyse the poems, stories and various discourse like paragraph writing, description, letter, slogan, poster, script

writing, choreography, profiles, news reporting, story retelling, conversation, etc., are also used. The nature of content caters to different levels of learners.

- Child friendly and standardized language is used in almost all units in 7th standard English text book. The new text book gives great importance to children's literature, authentic pieces of children's literature, adapted versions of well known stories and stories developed by text book writers are included. Child friendly language is used in all stories except 'Village Pooram'..
- The multi coloured pictures will generate interest in the students and will also help them form mental pictures of the characters.
- Almost every page of TB has questions for interaction with learners. These questions mainly serve not only the teachers but also the learners.
- The new text provides enough space for language activities and games. There are many slots in the TB for the learners to analyze the language used in them and to apply the knowledge of the language in new context.
- Excess use of unfamiliar words leads to lack of interest in reading. E.g. unit 1 story 'How far is the river', unit 3 Fictions 'The story of message', Unit 4 Fiction 'Village Pooram'.
- Almost all the pictures given in the text book are very suitable to learners to form mental pictures of the characters described in the stories and poems. In unit 6 Learners can't easily name the characters in the titular picture. Pictures which need more clarity are Unit 1 – How far is the River page 9 and Unit 6 – Moments of Humour page 162
- The following units are suggested by teachers to provide more explanation .Unit 1 How far is the River, Echoing green, Unit 3 Man and Media, Unit 4 Village Pooram, Unit 5 Daddy fell into the pond, Unit 6 Moments of Humour.
- It is found that the explanation of certain activities in unit 1, 2,3 and 5 need to be simplified. There are various slot provided in the TB to assess the learner, their excellence in performance and presentation and the aptitude to prepare various discourses. All the units in the 7th standard English Text Book provide number of slots for continuous and comprehensive evaluation.
- It is found that all the six units in the text book ensure democratic sense and constitutional values, gender justice and gender equality.

- It is significant to note that all the aspects like constitutional values, secular attitudes, tolerance, creative thinking, equality, civic sense, Human right, child right etc are considered in almost all the units in the text book.
- It is significant to note that the layout, language and content of the text book is in tune with Right to Education Act 2009. It is found that all the stories in the textbook are authentic and attractive and the pictures used are suitable to the learners.
- It is significant to note that the teacher text of English is not only in tune with the CB of standard 7 but also a comprehensive one which gives details on the approach towards methodology, techniques of transactions, planning and evaluation. Ample opportunities are provided in the teacher text for the teachers to analyse and practice the elements of language.
- It is significant to note that the teachers found the size of the text book quite voluminous and the printing and binding quality quite poor.

IX. Practical difficulties encountered in different areas

A. Learning Outcome

- The teachers experienced difficulty in attaining clarity regarding characteristics features of the learning outcomes envisaged by curriculum 2013 in the following areas: like short term and long term achievement, activity oriented learning, inclusive education and ICT based education
- Majority of teachers couldn't ensure the achievement of the expected learning outcomes through the transaction of the content. The difficulties reported by the teachers for attaining all learning outcomes are lack of time, excess content, day celebration and co-curricular activities, involvement of teachers in duties other than class room teaching, excess activities and presence of different level of learners.

B. Learning Resources

- The difficulties pointed out by the teachers regarding the features of text book are lack of activities for catering inclusive learning, lack of appropriate learning activities, difficult vocabulary which leads to lack of interest in reading among students, lack of previous knowledge., the content is above the level of the students of standard 7, lack of clarity, blurred pictures, difficulty in grasping the content properly due to difficult vocabulary and language, ambiguity in the content, some of the learning activities are not focused on the desired by outcome, provided links/hints in the TB are not accessible, suitable and appropriate, lack of extended

activities for enhancing creativity, the standard of the text activities in the first few units are above the standard of students, lack of opportunity for field trip, lack of local resources like library, expert session, etc. and lack of activities which cater the heterogeneous group of learners.

- The difficulties pointed out by the teachers regarding the features of teacher text are lack of details in TT, lack of clarification of hard spots, lack of link talks and discussion points, lack of clarity in text related hints, lack of conceptual clarity in TT, lack of explanation for certain areas in the TB, lack of additional resources, lack of sample teaching manual, lack of instructions for the preparation a TM, lack of proper training/awareness in CE, lack of time for recording CE, lack of proper instructions for CE related to each discourse, ambiguity in CE and TE, clarification regarding the cultural and historical backgrounds of the literary pieces provided in the TB is not given in TT, appropriate evaluation tools are not incorporated in TT, overcrowded classrooms, excessive number of activities, lack of time for processing discourse, lack of reference books suggested in the TT, lack of facility for visiting sites and lack of availability of reference books.
- Difficulties experienced by teachers in utilising the facilities in the school such as lab, library, ICT, display board, periodicals, club and corner are lack of equipments, lack of fund, shelves, time and teachers, lack of sufficient subject related reference books, not equipped with proper facilities like shelves, space for reading, and librarian, lack of contemporary literary pieces, no separate room for library, lack of financial aid for the purchase of books and other equipments, lack of sufficient computer, overcrowded classroom, lack of subject related CDs, lack of proper training for handling ICT, lack of internet, projector and separate room, no display boards, lack of subject specific magazines and publications, lack of separate room and space for club function, lack of proper training to create awareness among the teachers about the functioning of the club, and the classrooms are not spacious enough for the functioning of reading corner .
- The difficulties with respect to art education pointed out by teachers are: lack of special teachers to deal with art, lack of training, lack of time, lack of financial support, lack of materials and opposition from certain religions section.
- The difficulties with respect to Sports and health education pointed out by teachers are :No physical education teachers to handle sports, lack of sports equipment, lack

of ground, lack of fund and time, lack of specialized teachers to handle the area 'health', and lack of awareness regarding Health Education

- The difficulties with respect to work education pointed out by teachers are Lack of specialised teachers, lack of materials and lack of training.

C. Learning Process

- 'Learning of the different levels of learners', and 'integrating arts, sports, health and work experience' are two thrust areas that posed difficulty to majority of English Teachers while planning the learning activities.
- Some of the teachers experienced difficulties in using the strategies such as investigative learning and meta cognition critical thinking
- 'Lack of time' and 'Lack of facilities/materials' were the major difficulties mentioned by the teachers to make use of appropriate learning strategies. The other genuine difficulties reported by teachers are difficulty in considering backward learners and small size of class rooms.
- Teachers in reported the following difficulties in ensuring learning outcomes satisfactorily in different levels of learners: Time is not sufficient for exploring the possibilities necessary adaptations, lack of suitable learning materials, Parents are not providing enough support, lack of specially prepared learning materials, lack of space, lack of proper involvement of learners a in the learning process, lack of cooperation from the part of the learners, lack of specially trained teachers which makes planning of the lessons difficult, presence of deaf and dump students creates communication problems, heaviness of syllabus, lack of suitable tools and other infrastructure, overcrowded class room, continuous absence of the differently abled, lack of text books and lack of basic skills of reading and writing and heterogeneity of these learners regarding their level of understanding .
- The following difficulties pointed out by teachers in planning activities to overcome the limitations of slow learners: Large number of students, lack of activities for Gifted learners, non co operation of Parents, lack of interest of learners
- Difficulties reported by teachers in the implementation of learning activities to enrich the abilities of gifted learners are difficulty in planning challenging learning activities and lack of time.

D. Evaluation

- Some of the teachers reported that they need clarity process evaluation. A very few needs clarity of Unit Assessment, Portfolio Assessment, and Recording.
- The practical difficulties mentioned by teachers in the recording of continuous evaluation are: lack of sufficient time, excess number of students, lack of timely availability of records, complexity in recording and lack of awareness of recording procedure.
- The difficulty experienced by the teachers to carry out learning process and evaluation simultaneously is lack of proper planning. The other difficulties reported are giving more emphasis to learning process than evaluation and lack of awareness about suitable strategies .
- The difficulties reported are inadequate evaluation strategies, difficulty in grading and difficulty in recording. Other difficulties reported are: difficulty in framing questions suiting different level of learners, lack of time, over loaded content and abundance of students.

E. Error Analysis

The answer scripts of learners were analysed in order to find out the errors committed by learners. The details are given below:

- Learners could not identify the rhyme scheme .They couldn't express ideas sequentially without digression and could not use connectives and pronouns properly to maintain coherence. They couldn't uses well formed constructions (syntax, number, gender, person, verb etc. A few of them couldn't covey the message properly.
- Majority of the learners could not write a profile with all its features. A few of them could convey the message, use persuasive and emotive language as demanded by the context, use correct format use well formed constructions.
- They could not express personal reflections, thoughts and feelings about the events or use the language appropriate for the mood of the situation. Majority of them could not use variety of sentences. A major percentage of learners could not express logical predictions and proper sequencing of events and dialogues. Many of them could not use variety of sentences, contextually relevant and emotive language. Majority of them do not have any idea about the morphological aspects.
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F. Text book analysis

- Some parts of unit III Man and Media (Story of message and a Non-fiction Village Pooram) in unit 4 are not in tune with curriculum and philosophical foundation of constructivism because these reading passages are too lengthy.
- Unit 1, 2 and 3 are loaded with language elements. It will hinder the natural way of learning..
- Child friendly language is not used in the story ‘Village Pooram’..
- Excess use of unfamiliar words leads to lack of interest in reading. E.g. unit 1 story ‘How far is the river’, unit 3 Fictions ‘The story of message’, Unit 4 Fiction ‘VillagePooram’.
- In unit 6 Learners can’t easily name the characters in the titular picture. Pictures which need more clarity are Unit 1 – How far is the River page 9 and Unit 6 – Moments of Humour page 162
- The following units need more explanation .Unit 1 How far is the River, Echoing green, Unit 3 Man and Media, Unit 4 Village Pooram, Unit 5 Daddy fell into the pond, Unit 6 Moments of Humour.
- .It is significant to note that the teachers found the size of the text book quite voluminous and the printing and binding quality quite poor.

X. Suggestions emerged out of the study

A. Learning outcomes

- Peer tutoring , IT possibilities, group work, local text, etc. are the best measures suggested by teachers for ensuring the learning outcomes in all learners
- For ensuring spiraling of learning outcomes from lower to higher classes, teachers suggested measures such as the attainment of the learning outcomes formulated in such a way to ensure the chronological order from the lower class to higher class, 7th standard text book should be prepared in keeping continuity with the 6th standard, and the basic knowledge about language elements must be fixed at the lower class.

B. Learning Resources

- Language used should be appropriate to the level of learners and activities considering different levels of learners are to be included in the English text book.
- The notable suggestions given by the teachers for improving the facilities in the school such as lab, library, ICT, display board, periodicals, club and corner are: providing more equipment, financial aid, facilities, subject related CD’s, training for

making use of the facilities of the lab, reference book, contemporary literary pieces, library with all modern facilities, financial aid for aided schools too as part of SSA and RMSA, computers both for UP and HS ,financial support for buying computers, separate smart classroom ,ICT enabled classrooms and adequate ICT training.

- The suggestions given by the teachers to enhance art education are to appoint specialized teachers for art, to provide support from LSG and to conduct training programmes for other subject teachers to equip them to handle Art classes.
- Appointment of physical education teachers at the earliest and support by local self-government are the suggestions by the teachers to improve sports where as providing nurses/health worker in school, training and awareness classes to all teachers and giving training to teachers in Yoga classes are the suggestions made for health education
- Teachers suggested to appoint WE teacher, allot fund by the LSG to buy materials for WE and provide training for all providing specific periods, text books, evaluation tools and worksheets

C. Learning process

- Simple activities suitable for different levels of learners should be provided in the text book. Separate classes are to be provided to the differently abled in addition to the regular classes Unit tests should be conducted frequently. CE is to be conducted term-wise and Provide freedom for teachers to prepare the teaching module according to the level of the students. .
- The major remedial measures suggested for the purpose of multilevel of learners are: to provide suitable materials and provide training, include more activities suitable for gifted students in the text book and teacher and conduct the training classes for teachers during vacation only.
- Teachers need to be given clarity about the learning outcomes. Hence proper explanation of the learning outcomes in terms of content, process skills, values and attitudes etc should be addressed in the cluster trainings and micro level planning of the learning activities and teaching learning materials are to be done.
- Activities for fixing reading and writing are to be provided in the teacher text. Activities based on dialogue and communication in the text book is to be included. The instructional activities for different levels of learners are to be provided.

- Value based stories and poems are to be included in the text books. Along with class room teaching, children should be exposed to basic life skills
- ICT training should be provided to all teachers ensuring hands on experience, Classrooms are to be converted into smart class rooms, Internet facilities are to be made available, Required number of computers and their proper maintenance should be ensured, Provide opportunities to organize and involve in social activities,
- Activities considering different levels of students are to be included in the English text book. Separate classes are to be provided to the differently abled in addition to the regular classes. Planning should be done in the cluster level with special reference to the differently abled. So that teachers get more skill in handling the differently abled.
- CE is to be conducted term-wise and provide freedom for teachers to prepare the teaching module according to the level of the students.
- Micro level Planning for Learning of the different levels of learners', and 'Integrating arts, sports, health and work experience' are to be given special attention while conducting training to teachers. Separate text is needed for arts, sports and work experience,
- Properly planned teaching manuals with learning strategies , learning materials evaluation strategies etc appropriate to the contents, and their implementation in the classroom should be ensured for the attainment of learning outcomes in different levels of learners, on a compulsory basis in all classes. For this monitoring should be made compulsory on the model of Internal Support Mission Visits (ISM).
- The teachers suggested the appointment of trained teachers in arts, sports and work experience to ensure the effective evaluation. They suggested including sufficient time to practice these subjects, providing separate period for teaching these areas and providing evaluation tools/ worksheets for evaluating these subjects.
- Teachers suggested the following measures for tackling the difficulties in enriching the abilities of gifted learners: include more activities in the text book, decrease the number of outdoor activities and specify the activities for the gifted in the teacher text.
- For effective transaction of the content in a child friendly manner the teachers made following suggestions: syllabus should be reduced, teacher training should be made

compulsory, There should be team visit focusing each subject, special training should be provided to teachers especially in arts, sports and work experience.

D. Evaluation

- Suggestions put forward by teachers for improvement regarding the areas of continuous evaluation strategies are: effective training, availability of effective tools, Clarification in training programme and timely evaluation
- Clarity of indicators in Portfolio Assessment and Assessment of Learning Process should be provided.
- The suitable changes incorporated by giving due consideration Giving due consideration to peer teaching and evaluation, use of ICT possibilities in evaluation, remedial teaching, conducting Reading competition Dictation, Quiz, etc., foster competitive spirit among students, collaborative learning, ensuring the presence of students of different levels in all groups, manuscript preparation, self-evaluation during drama and recitation, facilitate copy writing to reduce spelling mistakes, preparing teacher version, presenting lesson as scripts, changes strategies in evaluation, more time allotted for reading notes and review, simplifying activities for slow learners, giving more importance to creative writings, provision of individual activities and Self-developed module for students of different levels.
- The teachers suggested the appointment of trained teachers in arts, sports and work experience to ensure the effective evaluation. They suggested including sufficient time to practice, providing separate period for teaching these areas and providing evaluation tools/ worksheets for evaluation and ensuring availability of TB and TT.

F. Adequacy of resources

It is desirable to include provision for recitation, workshop for creative writing and identification of climax of compositions

- a significant number of teachers reported that activities like story completion and picture story ,suitable for creative writing are to be included in the text book.
- A significant number of teachers reported that activities such as storytelling, choreography and miming are given importance in the text book for acquiring language skills.

G. Classroom observation:

- Teachers need to prepare the TM using additional resources and creative activities other than the activities provided in the Text Book and Teacher Text.
- Provide variety of learning activities to reinforce adequate pre-requisites to all learners.
- Teachers need to be empowered to provide life-oriented and thought provoking activities like description and stories in order to create interest and motivation among the learners,
- Life-oriented and thought provoking activities like description, stories and leaning materials for developing interest and motivation among the learners should be included.
- Continuity in lesson should be ensured
- Innovative learning aids , prepared from local resources for attaining conceptual clarity should be used by teachers.
- Teachers need to provide slots for learning activities to develop attitudes, values and social responsibilities for intellectual and emotional development in learners.
- Teachers should provide opportunity for recalling facts through repeated drill and practice.
- Involvements of all learners were ensured by teachers.
- Teachers need to provide opportunity for reflective thinking in the concerned class itself and provide remedial measures.
- Consolidation is needed at the end of every learning activity.
- Variety of strategies for evaluation need to be adopted.
- Teachers in English should be empowered with necessary competencies and skills for making the learning process oriented and learner friendly

F. Answer script analysis of English: Error Analysis

The answer scripts of learners were analyzed in order to find out the errors committed by learners. The details are given below:

- Learners should identify the rhyme scheme.
- They should express ideas sequentially without digression and could use connectives and pronouns properly to maintain coherence. They could uses well formed constructions (syntax, number, gender, person, verb etc.

- Training should be provided to learners to write a profile with all its features. Use correct format with well formed constructions.
- Learners are to be motivated to express personal reflections, thoughts and feelings about the events or use the language appropriate for the mood of the situation.
- Learners should be trained to express logical predictions and proper sequencing of events and dialogues.

G. Suggestions for the improvement of English Textbook.

- Some parts of unit III Man and Media (Story of message and a Non-fiction Village Pooram) in unit 4 are to be in tune with curriculum and philosophical foundation of constructivism and reduce the length of passages.
- Reduce the language elements in Unit 1, 2 and 3
- Use Child friendly language in the story ‘Village Pooram’.
- In unit 1 story ‘How far is the river’, unit 3 Fictions ‘ The story of message’, Unit 4 Fiction ‘ Village Pooram’ excess use of unfamiliar words should be reduced.
- Pictures need more clarity in Unit 1 – How far is the River page 9 and Unit 6 – Moments of Humour page 162
- More explanation should be provided in the following units -Unit 1 How far is the River, Echoing green, Unit 3 Man and Media, Unit 4 Village Pooram, Unit 5 Daddy fell into the pond, Unit 6 Moments of Humour.
- The size of the text book should be reduced and the printing and binding quality should be improved.

SCIENCE

The findings of the study related to Science are as follows:

I. Learning Outcome

1. Majority (85.90%) of Science teachers of class VII has clear idea regarding the characteristic features of the learning outcomes envisaged in the curriculum 2013 and the remaining teachers (14.10%) need more clarity regarding the features of learning outcome like short term and long term outcomes, inclusive education, problem solving skill ,values and attitudes.
2. It is noteworthy that majority of teachers (73.08%) couldn't ensure the achievement of the expected learning outcomes through the transaction of the content. Various teaching learning strategies like extended activities, Individualized learning, Peer tutoring, Class test and retest and Parallel group formation are the measures adopted by the teachers for ensuring the learning outcomes in all learners.
3. Majority of teachers (69.23%) are able to differentiate between short term and long term learning outcomes only to some extent level whereas (40.87%) of teachers are able to differentiate between short term and long term learning outcomes to a great extent level.
4. A great majority (93.95%) of teachers reported that the attainment of the learning outcomes are arranged in such a way as to ensure the continuity and development of it from lower to higher classes where as 6.05% of teachers disagreed with this. The teachers who opined that the spiraling is not done recommended measures such as providing more examples, Ensuring basic knowledge , including more content in the lower class text book, etc.
5. Majority of the teachers (85.90%) reported that the learning outcomes given in different units are observable and measurable where as 14.10% disagree with this.
6. Majority (71.79%) of teachers reported that they could understand to a great extent the ideas/skills to be acquired from each unit of Science text book through learning outcomes but 27.56% responded that they could understand the ideas/ skills to be acquired only to some extent level.
7. It is noted that 58.97% of teachers responded that learning outcomes are given according to the age-level of the learners to a great extent level while 37.18% opined that learning outcomes are age specific only to some extent level.

8. It is found that 57.05% of teachers opined learning outcomes are helpful for self-evaluation only to some extent level whereas 41.03% of teachers in Science opined that the learning outcomes are helpful for self- evaluation to a great extent level.
9. It is noteworthy that 44.23% of teachers reported, the time bound completion of learning outcome is not possible where as 55.77% of teachers agreed that time bound completion of learning outcomes is possible in Science. Lack of time, excess number of lessons, presence of lengthy units, excess number of students and shortage of working days are the constrains for the time bound completion of learning outcomes in the prescribed time.
10. Majority of teachers (78.85%) opined that the outcome focused methodology is helpful in ensuring the level of learning envisaged by RTE. It is noteworthy that about 21% of teachers have the opinion that the outcome focused methodology is not helpful in ensuring the level of learning envisaged by RTE.

II. Findings based on Learning Resources

1. Even though majority of teachers (more than 90%) favour most of the characteristics of the Science textbook such as appropriateness of content to the level of the learners, language used, framing of units considering the possibilities of varied learning strategies, spiraling of concepts and slots for ICT, 51.28% of teachers opined that those activities considering different levels of students are not present in the text book. According to a significant number of teachers the content and the language are not appropriate to the level of learners.

The reasons pointed out by the teachers who disagree with the features of Science text books are lack of adequate learning activities, higher level of the content, lack of activities for catering inclusive learning, lack of clarity in ambiguity, lack of clarity, blurred pictures, insufficient extended activities for enhancing creativity, inaccessible links/hints in the TB, lack of slots to make use of library and language lab, lack of slots to make use of local resources and lack of activities which cater the heterogeneous group of learners.

2. Even though majority (more than 70 %) of teachers supports the science teacher text in many aspects such as teacher text being helpful in preparing TM, providing suitable tools for evaluation , helpful in attaining clarity in the general approach of

the curriculum, providing clarity in professional ethics to be practiced by teachers, text book and the teacher text being complementary to each other, providing hints in the teacher text for transacting the content, providing specific instructions in teacher text for CE and TE, providing additional information for the transaction of the lessons, providing information of reference books and different web sites for the transaction of lessons and for giving clear cut idea about the right-based education as envisaged by RTE Act where as 48.08% of teachers reported the division of periods for each units is not suitable for its transaction.

The difficulties reported by the teachers are overcrowded classrooms, excessive no. of activities which is more than the content of the TB, lack of time for processing discourses, lack of clarification of hard spots, lack of link talks and discussion points, lack of conceptual clarity in TT, lack of explanation for certain areas in the CB, lack of facility for visiting sites, lack of available of reference books, clarification regarding the cultural historical backgrounds of the literacy pieces provided in the TB are not given in TT, lack of proper training/awareness in CE, lack of time for recording CE, lack of proper instructions for CE related to each discourse, ambiguity in CE and TB, lack of additional resources, lack of sample teaching normal, lack of instructions for the preparation a TM and lack of appropriate evaluation tools.

3. Majority of the teachers (above 70%) reported that the facilities such as Science lab, ICT, Science club, Reading corner, Display board, mathematics club, Language lab, and Social science club are available in schools. It is also found that 51% to 64% of teachers opined that Science corner, mathematics corner, Social science lab and Social science corner are available in schools. It is noteworthy that 8.97 % of teachers reported that display boards are not available in schools.
4. Though more than 57% percentage (57% to 69%) of teachers reported that the content of the lesson has given emphasis to facilities in the school such as lab, ICT, periodicals, club and corner are to 'a great extent', a significant percentage (45.51%) of teachers reported that these facilities are to some extent level only.
5. More than fifty percentage of teachers (51.28% and above) reported that necessary instructions are provided in T.T. to a great extent to utilize the facilities in schools such as lab, library, I.C.T., Display board, periodicals, club and corner, while more than 30% of teachers opined that necessary instructions are provided in T.T. to 'some extent' for all the facilities mentioned.

6. More than 50% of teachers(50.64% to 66.03%) reported that lab, library, I.C.T., Display board, periodicals, club and corner are utilized to a great extent level for providing learning activities while more than 30% of teachers opined that these facilities are utilized only to some extent level ' for providing learning activities.

The difficulties reported by the teachers are lack of sufficient subject related reference books, lack of proper facilities like shelves, space for reading, and librarian, lack of contemporary literary pieces, lack of separate room for library, lack of financial aid for the purchase of books and other equipment, lack of sufficient computer, overcrowded classroom, lack of subject related CDs, lack of proper training for handling ICT, lack of internet, projector and separate room, lack of display boards, lack of subject specific magazines and publications, lack of time for club activities, lack of separate room and space for club function, lack of proper training to create awareness among the teachers about the functioning of the club, lack of space for the functioning of reading corner and lack of sufficient books and furniture some other limitation.

7. Majority (above 70%) of teachers reported that number of materials other than Teacher Text and Textbook such as pictures, Resource CD, work sheet and reading materials prepared by teachers, tables, local resources and reports, diagrams etc are used for teaching and learning. The additional materials used by teachers are ,magazines, field trips, paper cutting ,gifts for encouragements, daily news quiz
8. Majority (66.67%) of teachers reported that adaptations of CWSN are made by resource teachers .The other facilities which help in adaptation are TB and TT. Adaptation in infrastructure is reported by significant percentage (41.03%)of the teachers .
9. It is found that 29.49% of teachers opined that in the Science text book there are slots for effective transaction of area related to art to a great extent dimension while 60.26% teachers opined to some extent level. Regarding instructions for framing necessary resources for art education it is found that 29.49% of teachers opined that in the Science text book there are slots for effective transaction of area related to art to a great extent dimension while 60.26% teachers opined to some extent level. About 32.69% of teachers reported that instructions for framing necessary resources for art education are there in TT to a great extent level and 56.41% teachers reported to some extent level. Only 9.62% teachers opined that suitable materials related to

art are available in the school to a great extent while 63.46% reported that resources are available to some extent level. It is significant to note that 24.36% of teachers reported that resources are not at all available in their schools while 57.69% reported it to some extent level. About 28.85% of teachers reported that they make use of TT to a great extent level for the area and 53.85% to some extent level. About 28.21% of teachers reported that they make use of activity book to a great extent level and 48.08% teachers opined to some extent level. Only 9.62% teachers opined that suitable materials related to art are available in the school to great extent while 63.46% reported that resources are available to some extent level. 24.36% of teachers reported that resources are not at all available in their schools while 57.69% reported it to some extent level. About 28.85% of teachers reported that they make use of TT for the area to a great extent level and 53.85% to some extent level. About 28.21% of teachers reported that they make use of activity book to a great extent level and 48.08% teachers opined to some extent level.

It is found that teaching learning resources in the area of arts are present in the TT only to some extent level. The limitations with respect to art education pointed out by teachers are no special teachers to deal with art, lack of training, lack of time, lack of financial support, lack of materials and opposition from certain religions section. The suggestions given by teachers for overcoming these limitations are appoint specialized teachers for art, provide support from LSG, conduct training programmes for other subject teachers to equip them to handle Art classes.

10. It is found that 36.54% of teachers opined that in the Science text book there are slots for effective transaction of area related to Sports and health to a great extent dimension while 54.49% teachers opined to some extent level. About 33.33% of teachers reported that instructions for framing necessary resources for Sports and Health are there in TT to a great extent level and 51.92% teachers to some extent level. Only 16.03% teachers opined that suitable materials related to Sports and Health are available in the school to great extent while 67.95% reported that resources are available to some extent level. Very few (19.87%) reported that local resources are not at all available in their schools while 58.33% reported it to some extent level. About 27.03% of teachers reported that they make use of TT for the area to a great extent level and 51.92% to some extent level. About 32.69% of teachers reported that they make use of activity book to a great extent level and 45.51% teachers opined to some extent level.

Majority of teachers (above 60%) opined that teaching learning resources in the area of sports and health are present in the TT only to some extent level. The limitations with respect to sports and health pointed out by teachers are no physical education teachers to handle sports, lack of sports equipment, lack of ground ,lack of fund ,lack of time, specialized teachers to handle the area 'health', lacked training to handle the Health Education and lack of awareness regarding HE .The suggestions given by teachers for overcoming these limitations are appoint physical education teachers at the earliest, local self-government should support the teachers ,lack of financial aid, provide nurses/health worker in school, provide training and awareness classes to all teachers and give training to teachers in Yoga classes.

11. It is found that 33.97% of teachers opined that in the Science text book there are slots for effective transaction of area related to work experience to a great extent dimension while 55.13% teachers opined to some extent level. About 27.57% of teachers reported that instructions for framing necessary resources for work experience are there in TT to a great extent level and 58.97% teachers to some extent level. Only 12.18% teachers opined that suitable materials related to work experience are available in the school to great extent while 61.54% reported that resources are available to some extent level. Very few (21.15%) reported that local resources are not at all available in their schools while 59.62% reported it to some extent level. About 21.15% of teachers reported that they make use of TT for the area to a great extent level and 55.77% to some extent level. About 24.36% of teachers reported that they make use of activity book to a great extent level and 50% teachers opined to some extent level.

It can be inferred that teaching learning resources in the area of work experience are present in the TT only to some extent level. The limitations with respect to work experience pointed out by teachers are lack of specialized teachers is a major limitation in promoting WE in schools, Lack of materials for it, lack of teachers,lack of time. The suggestions given by teachers for overcoming these limitations are,appoint WE teachers, allot fund by the LSG to buy materials for WE,provide training for all teachers.

12. Regarding the products of the learning activities a great majority of teachers (more than 90%) reported that they evaluated the products, found and encouraged learner's outstanding products and utilized the possibility of re-using the products. Only very

few (8.33%) teachers opined that they conducted exhibition of learner's products. It is significant to note that a great majority (91.67%) teachers reported that they do not conduct exhibition of learner's products. It is significant that only a few teachers organize exhibition of learners products in school assembly cultural programmes, BRC/CRC level, panchayath level and state level.

III Findings based on Learning process

1. Majority (67.95%) of teachers of Science experienced difficulties while planning learning activities.
2. Teachers experienced difficulty (66.67%) in the area ensuring learning of different level of learners and the least difficulty (7.69%) in the area inculcating values and attitudes. The remedial measures suggested by teachers include making the learning outcome simple, integrating arts, sports, health and work experience, inclusion of life skill oriented examples, spots for ICT, community bound activities, continuous evaluation, and areas to develop social commitment.
3. Majority (91.03%) of teachers sometimes ensured the development of Process skills in the learners through learning process, only 7.05% could always ensure it in the class.
4. Majority (91.03%) of teachers planned and implemented learning activities to attain conceptual clarity through multi-sensory experiences.
5. Majority of teachers (93.59%) reported that curriculum is appropriate for enabling learners to apply the knowledge acquired through learning process in their daily life while 6.41% of them considered otherwise.
6. Majority of Teachers (85.90%) made use of learning strategies appropriate to the content. However 14.10% of Science Teachers did not use of learning strategies appropriate to the content.
7. The learning strategies such as investigative learning and Critical thinking are the most difficult strategies reported by some of the science teachers. Some teachers also suggested that they feel difficulty in adopting the strategies Issue based approach and Self-learning & Collaborative learning
8. 'Lack of time' and 'Lack of facilities/materials' were the major reasons for experiencing difficulty while making use of appropriate learning strategies mentioned by the Science Teachers. The other genuine difficulties reported by some

of the teachers are: Lack of adequate laboratory, Large number of students and difficulty in handling learners of different levels together.

9. More than half of Teachers (52.56 %) did not plan and implement learning activities to overcome the constraints of slow learners. 'Lack of time' and 'Lack of specially prepared learning materials' were the reasons for experiencing difficulty that were mentioned by more than two-fifth of the Science Teachers while planning and implementing learning activities to overcome the constraints of slow learners. The other reasons mentioned by them are backwardness of students, the unequipped science lab and activities are less in text book and teacher text.
10. More than half (52.56 %) of teachers did not plan and implement learning activities to overcome the constraints of slow learners. 'Lack of time' and 'Lack of specially prepared learning materials' were the reasons for experiencing difficulty that were mentioned by more than two-fifth of the Science Teachers while planning and implementing learning activities to overcome the constraints of slow learners.
11. A great majority of Teachers (90.38%) implemented learning activities to enrich the abilities of gifted learners, whereas 9.62% could not.
12. Majority (73.72%) of the teachers did not ensure the attainment of learning outcomes in different levels of learners, whereas only 26.28% did so. Teachers in Science also reported the following difficulties in ensuring learning outcomes satisfactorily in different levels of learners: The over-crowded classroom, lack of training to teachers, Heavy content, Lack of cooperation of the learners Irregularity of resource teachers, Lack of specially prepared materials lack of special activities, Inability of the learners to read and write and Continuous absenteeism of these learners.
13. A great majority of Teachers (90.38%) implemented learning activities to enrich the abilities of gifted learners, whereas 9.62% could not. 'Lack of time' and 'Lack of suitable learning resources' were the major reasons for experiencing difficulties in the Implementation of learning activities to enrich the abilities of gifted learners . Remedial measures suggested by Science Teachers for tackling the difficulties in enriching the abilities of gifted learners are : provide more activities and possibilities for the gifted in the text book and teacher text and provide chances for clustering and sharing of the gifted.
14. Majority of teachers (82.69%) sometimes ensured the maximum participation of all learners while only 14.74% always ensured full learner participation.

15. More than half of teachers always transacted the content in a learner friendly manner while 38.46% were sometimes learner friendly in content transaction.

IV. Findings based on Evaluation

1. Even though majority (87.82%) of teachers got a clear idea about continuous assessment, about 12.18% teachers reported that they need clarity in process evaluation followed by assessment of learning process, portfolio assessment, unit assessment and recording.
2. It is clear that about 38% of teachers are not able to ensure learning and to provide support to learners though CE. Lack of time (28.21%) was the significant difficulty encountered while conducting CE (28.21%) and other practical difficulties encountered are lack of awareness, complexity of learning process and overcrowded class rooms.
3. Even though majority of teachers (78.25%) are able to carry out learning process and evaluation simultaneously a significant number of teachers (21.15%) are not able to undertake the task successfully. 21.15% of teachers reported that the difficulty faced to carry out learning process and evaluation simultaneously are more emphasis to learning process than evaluation, lack of awareness about suitable strategies and lack of proper planning.
4. Majority (89.10%) teachers reported that the indicators given to the areas for evaluation are specific while 10.9% teachers reported as not specific.
5. A great majority of teachers (96.15%) reported that they provide opportunities for self-evaluation and peer evaluation. But it is significant to note that 3.85% of teachers are not all providing any opportunity for peer evaluation and 18.59% for self-evaluation.
6. Even though majority of teachers (71.79%) prepare indicators for evaluation through classroom room discussions, a significant percentage of learners also prepare indicators themselves. It is also found 42.31% of teachers prepare indicators for evaluation by themselves. From this it is clear that teachers are not concerned with the preparation of indicators by learners.
7. Even though majority of teachers (87.82%) are providing ample opportunity for learners to present their products related to self-evaluation and peer evaluation, a significant number of teachers (12.18%) are not providing such opportunities.

8. Even though majority (83.33%) of teachers are making necessary changes in the classroom process considering the learners' evaluation, 16.67% of teachers are not making necessary changes. The necessary changes incorporated are: peer tutoring, giving question based on level of students, self evaluation, group activities, conceptualisation through simple examples, more importance given for individual activities, more experiments/ repeated activities, collections, provide ICT possibilities students design experiments and Experimental aids prepared in the classrooms.
9. Class tests, quiz are found to be the most popular tools used by majority of teachers (more than 80%). It is also reported that along with open text book seminar, work sheet, work sheet, debates ,projects, club activities, concept mapping, group discussion and experiments for unit evaluation.
10. Majority of teachers (86.54%) responded that they are evaluating and recoding interpersonal skill, self-awareness(76.28%), decision making (75.64%), and communication skill (70.51%) under socio-emotional areas. Teachers consider notebook, worksheet, answer sheets of unit wise assessment, Project/seminar reports, Writings, and Short notes for unit evaluation, among which notebook is the most widely used record. It is also reported that apart from above said materials models, products related to learning process, improvisation by students, doing experiments, report presentation, drawing, short notes of experiments, designed instruments, constructive activities, presentation of simple experiments, observation notes and exhibits for unit evaluation.

V. Adequacy of Resources in the Textbook : SCIENCE

Findings based on the adequacy of resources in the science text book for enhancing learning, difficulties faced by teachers in transacting lessons and characteristics based on teacher text are given below:

1. Majority (76.28%) teachers reported that they fully agreed that contents provided in the Text Book are suitable for the attainment of the objectives of learning Science while 26.28% of teachers are partially agreed with the fact. Majority of teachers (73.72%) agreed that the activities given in the Text Book are suitable for the attainment of science process skills. Only 53.85% of teachers fully agreed that

activities provided in the Text Book are adequate enough to develop creativity and scientific thinking while 38.46% teachers partially agreed with the fact at the same time 7.69% of teachers did not agree with the fact.

2. It is found that 39.10 % teachers reported that they find difficulty in ensuring the full participation of the students and for 38.46% teachers, in preparing improvised materials . The other difficulties reported by very few teachers are in designing experiments, finding out the resources to ensure the attainment of learning outcomes, arriving at conclusion, making use of learning resources fruitfully and preparing experiment notes.
3. It is found that 66.67% teachers fully agreed that sufficient knowledge about the aims of learning science are there in the teacher text. It is followed by a clear indication regarding how to plan each learning activity to ensure learning outcomes(62.18%),provide sufficient extra knowledge that helps in conceptualization(53.85%) and mentioned different learning strategies for learning science(50%). It is also important to note that about 50% partially agree with the above statements.

6. Findings related to Class Observation

1. Findings based on performance of teachers show that teachers are average with regard to the components like Teaching Manual preparation, pre –planning, interest and motivation, learning activities learning environment, classroom intervention, evaluation and consolidation. From among the classes observed only 25% teachers have prepared TM creatively using additional resources and activities other than Teacher Text. It is serious to note that 25% of teachers engaged the classes even without Teaching Manual.
2. A few teachers provided introductory activities to get adequate pre-requisites to all learners. Only 30% of teachers aroused interest and motivation among the learners by framing life-oriented and thought provoking activities using description, stories and leaning materials. In certain classes varied learning activities provided were suitable for developing reflective thinking among learners. In other classes observed it is found that similar activities were carried out mechanically.58% of the teachers transacted the content in a sequential order. In the classes observed and spontaneous progress in learning and timely recording in the TM were there in some classes observed and in certain classes continuity was losing in certain places.About

50% of teachers used easily accessible learning aids recommended in the curriculum. Regarding the knowledge construction through learning activities it is seen that only 30% teachers help the learners to attain higher level of knowledge construction through reflective questioning and debating. 50% of teachers intervenes actively by clearing doubts .It is seen that only 25% teachers are providing slots for learning activities to develop attitudes, values and social responsibilities identified based on the content, 50% of teachers provides learning activities for emotional development in addition to activities for intellectual development and two teachers only tried to give advice for developing attitudes and values.

3. It is noted that only a negligible percentage teachers creates infrastructure/ICT facilities and independent social and emotional environment suitable for learning activities for all types of learners. It is also noted that only more than 30% of teachers have made timely evaluation and recording very rarely.

The above mentioned findings high light the need for empowering science teachers with necessary competencies and skills for making the learning process learner friendly.

7. Findings based on Answer Sheet Analysis: Science

It is found that 50% of students were not able to observe and gather information from the picture and express the concept in the form of essay, properly display the output expected out of them from the activity, respond correctly to the question, differentiate between convex and concave mirrors and hence fail to apply the knowledge. Moreover they have inability in expressing the concept, making instruments, backward in planning the experiments and predicting the results, to analyze the table and write essays.

8. Findings based on Textbook analysis: Science

1. In certain units/lessons learning experiences provided in the text book are not always adequate enough to lead the learners through constructivist paradigm. Instead of helping the children to construct their own ideas, ideas are given directly. For example, in unit two, for the activity ‘while looking in a mirror’, asking suitable analytical questions would be sufficient to lead the children to analyze their observations while standing in front of a mirror and reach the idea lateral inversion. But the questions given in the text book ‘Doesn’t our right side appear left and our left side right in the image?’ helps the children only for guided observation, not for

independent observation and its analysis leading to knowledge construction. In Unit 3, the topics ‘We can also make a fire extinguisher’ and ‘Magic of the egg’ could be made in tune with constructivism if adequate opportunities for drawing inferences from independent observation were given, instead of telling the ideas directly after giving the learning activities. Unit four, (Through the alimentary canal) and the last portions of units 6 and 10 do not agree with constructivism as the ideas and concepts are presented directly before the students instead of letting them to construct their own ideas. Thus some of the lessons do not go in tune with constructivism.

2. The contents of almost all the units are suitable and sufficient to achieve the learning outcomes except for Importance of Organic Farming. Activities are not sufficient to attain the learning outcome- ‘understanding the importance of maintaining body hygiene and practice’ in unit four. In Unit seven, even though the content is almost sufficient the activities such as ‘Ball in the funnel’ (inverted), ‘filling the balloon’ and ‘pressure everywhere’ do not work properly. Similarly in Unit 9, the activity given under the title ‘Transmission of heat in metals’ is difficult to perform. It is important to note that the content related to adulterants in food substances is not sufficient.
3. The content of almost all the units are suitable for activity based learning except some isolated areas which need more scientific approach in this respect.
4. Diversity of learning activities is ensured in almost all units
5. All the units follow a child friendly approach with respect to the use of simple language
6. In some of the units, the pictures, graphs etc are not sufficient or clear. In many instances, the illustrations given are vague, not adequately labelled, or not suited to the learning activity. For example, in Unit 1, the area “agriculture and cattle rearing” is introduced as a part of integrated farming. But instead of giving the picture of cattle rearing, the picture of ‘ploughing using cattle’ is given. The other pictures indicate poultry farming and goat rearing respectively but they are not shown as a part of integrated farming. In the case of Unit 4, all the illustrations are vague. In page No 50, the third figure is expected to show a bird eating guava fruit but the picture looks as if it is a bat. The sixth one is too vague to be recognized. So these images do not help the child to get a mental image of what is expected. There are also images which are not suitable to the context of the portion under study. In page 58, the digestive systems of some animals are given. These images are neither clear,

nor leading to any further discussion or activity. Therefore the relevance of these images in this context is not clear. In the case of illustration related to nutrition in amoeba, the food particle is too light in colour to catch the attention of the children. Further, the diagrams were not labeled so that it is not easy for the child to figure out the mode of nutrition in amoeba without the help of the teacher. In Unit 5, the picture of hydroelectric power station is not labeled so that the child can't recognize the parts of a hydroelectric power station by itself. In Unit 9, page 121, the picture of an incubator is given, but it is not clear and the child can never find out what it is, without the help of a teacher.

7. Some areas in the textbook need further explanation. For example, in unit 1, Detailing of only one type of grafting- ie approach grafting is given in the unit. After detailing the process of grafting, it would be better if the different situations in which grafting is used are also mentioned. In the area 'Eco friendly pest control', along with the application of bio-pesticides, the method of biological control should also have been included so that the students would develop an attitude towards the protection of the organisms that prey upon the pests. In Unit 4, the contents related to hygiene of food and hygiene of body for health protection' and 'Chew and grind' ,need explanation. In Unit 6'water purification', in Unit7 'Bernoulli's principle' and in Unit 8 'The heart of organisms, need more explanation
8. No need of simplification in any of the units except unit 7 .
9. There are ample slots for continuous evaluation in all units.
10. There are no instances of disparity of any kind throughout the textbook
11. There are enough slots for the development of democratic values in almost all the units except unit 2,7 and 9
12. All the units invariably keep a student friendly layout
13. The teacher text is suitable for the transaction of all the units except unit8 in which content enrichment is needed.
14. It is better that the size of the textbook is reduced to that of the teacher text so that it will be handier to students. The quality of the printing should be raised so that the pictures depicted will become clear and self -explanatory.

IX. Practical difficulties encountered by teachers in various areas.

A. Learning Outcomes

- The teachers experienced difficulty in attaining clarity regarding characteristics features of the learning outcomes envisaged by curriculum 2013 in the following areas: Process oriented learning outcomes, outcome which can be developed through co-operative and collaborative learning, outcomes which can be achieved through short term and long term and those helps to develop values and attitudes
- Majority of teachers couldn't ensure the achievement of the expected learning outcomes through the transaction of the content. Lack of time, excess numbers of lessons, presence of lengthy units, excess number of students, shortage of working days are the practical difficulties pointed out by teachers for not completing the given learning outcomes in the prescribed time.
- Lack of time, excess number of lessons, presence of lengthy units, excess number of students and shortage of working days are the reasons why they are not able to complete the given learning outcomes in the prescribed time.

B. Learning Resources

- The difficulties pointed out by the teachers among the features of text book are: lack of activities for catering inclusive learning, lack of adequate learning activities, the content is above the level of the students of standard VII, lack of clarity, blurred pictures, difficulty in grasping the content properly due to difficult vocabulary and language, ambiguity in the content, some of the learning activities are not focused on the desired by outcome, provided links/hints in the TB are not accessible, suitable and appropriate, lack of extended activities for enhancing creativity, the standard of the text activities in the first few units are above the standard of students, lack of opportunity for field trip, lack of slots to make use of local resources, library, laboratory etc., the activity provided in textbook are from surrounding which the teachers are not familiar with, lack of activities which cater the heterogeneous group of learners and provision for extra reading.
- The reasons pointed out by the teachers for not agreeing with the features of teacher text: are excessive no. of activities which is more than the content of the TB, lack of time for processing discourses, lack of details in TT, lack of clarification of hard spots, lack of link talks and discussion points, text related hints are not clear, lack of conceptual clarity in TT, lack of explanation for certain areas in the CB, lack of

reference books suggested in the TT ,lack of facility for visiting sites, lack of available of reference books, clarification regarding the cultural historical backgrounds of the literacy pieces provided in the TB are not given in TT, lack of proper training/awareness in CE, lack of time for recording CE ,lack of proper instructions for CE related to each discourse, ambiguity in CE and TB, lack of additional resources, lack of sample teaching manual, lack of instructions for the preparation a TM, appropriate evaluation tools are not incorporated in TT.

- Difficulties experienced by teachers in utilizing the facilities in the school such as lab, library, ICT, display board, periodicals, club and corner are : lack of equipment, lack of fund, shelves, lack of sufficient subject related reference books, space for reading, and librarian, lack of contemporary literary pieces, lack of financial aid for the purchase of books and other equipment, lack of sufficient computer, overcrowded classroom, lack of subject related CDs, lack of proper training for handling ICT, lack of internet, projector and separate room , lack of display boards, lack of subject specific magazines and publications, lack of separate room and space for club function , lack of proper training to create awareness among the teachers about the functioning of the club, and the classrooms are not spacious enough for the functioning of reading corner .
- The difficulties pointed out by teachers with respect to art education are: lack of training, financial support, time, materials and opposition from certain religions section.
- The difficulties pointed out by teachers regarding physical education are: insufficient sports equipments, playground, fund and time, lack of physical education teachers to handle sports, lack of specialized teachers to handle the area ‘health’, lack of training to handle the Health Education and lack of awareness regarding HE.
- The difficulties pointed out by teachers in case of work education are: lack of teachers who are specially trained in carrying work education in schools non-availability of raw materials to give training to learners, and lack of time.

C. Learning Process

- ‘Learning of the different levels of learners’, and ‘Integrating arts, sports, health and work experience’ are two thrust areas that posed difficulty to majority of science

teachers. The other areas reported are slots for ICT, community bound activities and Continuous evaluation

- Some of the teachers experienced difficulties in using the strategies such as Investigative learning and Critical thinking. The other strategies suggested by teachers include Meta cognition, Inductive thinking Issue based approach, Self – learning & Collaborative learning.
- ‘Lack of time’ and ‘lack of facilities/materials’ were the major reasons for experiencing difficulty while making use of appropriate learning strategies. The other reasons for experiencing difficulty in utilising appropriate learning strategies are: lack of infrastructure, lack of adequate laboratory, large number of students, lack of training in the field of arts, sports and work experience, difficulty in handling learners of different levels together and engaging teachers in other works.
- The difficulties in planning and implementing learning activities to overcome the constraints of different levels of slow learners are: lack of time, lack of specially prepared learning materials and difficulties in planning and implementing activities for different levels of learners . The other difficulties mentioned by teachers include: absence of students, backwardness of students, lack of parental support , the science lab is not equipped and activities are less in text book and teacher text.
- The difficulties encountered by teachers in ensuring learning outcomes satisfactorily in different levels of learners are: insufficient time to handle the differently abled learners properly, the over-crowded classroom, lack of training, no specially prepared learning materials and activities for them, heavy content , lack of cooperation of the learners ,lack of experience, lack of awareness of the Braille alphabets creates difficulty in handling blind students. Irregularity of resource teachers, lack of infrastructure, parents are not providing enough support, lack of special activities, inability of the learners to read and write is another problem faced by some teachers and continuous absenteeism of these learners also creates problems.
- The difficulties encountered by teachers for not being able to implement learning activities to enrich the abilities of gifted learners effectively are: lack of time , lack of suitable learning resources ,difficulty in planning challenging learning activities and lack of training.

D. Evaluation

- Some of the teachers reported that they need clarity in Assessment of Learning Process, Unit Assessment. A very few needs clarity of indicators in and Portfolio Assessment.
- ‘Lack of time is the major practical difficulty to ensure learning and providing support to learners while carrying out CE. The other difficulties reported are : lack of awareness, complexity of learning process and overcrowded class rooms.
- Teachers feel difficulty to carry out learning process and evaluation simultaneously due to giving more emphasis to learning process than evaluation. The other difficulties reported are: lack of time, records are not available from students in time, lack of awareness about suitable strategies and lack of integration.
- .Practical difficulties in recording Continuous Evaluationare: lack of time, more number of students, difficulty in daily evaluation in a specific period only, difference in attitude of students, abundance of dimensions/ learning outcome, presence of differently abled students, difficulty to follow specific format, difficulty while having number of classes, difficulty in bringing all the students to same level, same teacher should handle different subjects, lack of co operation, availability of data from students in time, abundance of records, more activities, lack of clear instruction, difficulty in evaluating extracurricular activities, activities in the portfolio are not completed at the same time.
- The reasons for experiencing difficulties in conducting Term Evaluation include: lack of time, low grade for gifted students, as the school function according to muslim calendar, implementation of “all promotion”, lack of suitable questions, difficulty in written expression, lack of training, continuous evaluation recording`.

E. Adequate resources of the text book

- The teachers reported that while transacting lessons they face difficulty in the following main aspects: ensuring the full participation of the students and in preparing improvised materials. The other difficulties reported by very few teachers are in designing experiments, finding out the resources to ensure the attainment of learning outcomes, arriving at conclusion, making use of learning resources fruitfully and preparing experiment notes.

F. Error Analysis

Learners were not able to observe and gather information from the picture and express the concept in the form of essay, properly display the output expected out of them from the activity, respond correctly to the question, differentiate between convex and concave mirrors and hence fail to apply the knowledge. More over they have inability in expressing the concept, making instruments, backward in planning the experiments and predicting the results, to analyse the table and writing essays.

G. Text book Analysis

- In certain units/lessons learning experiences provided in the text book are not always adequate enough to lead the learners through constructivist paradigm. Instead of helping the children to construct their own ideas, ideas are given directly. For example, in unit two, for the activity ‘while looking in a mirror’, asking suitable analytical questions would be sufficient to lead the children to analyze their observations while standing in front of a mirror and reach the idea lateral inversion. But the questions given in the text book ‘Doesn’t our right side appear left and our left side right in the image?’ helps the children only for guided observation, not for independent observation and its analysis leading to knowledge construction.
- In Unit 3, the topics ‘We can also make a fire extinguisher’ and ‘Magic of the egg’ could be made in tune with constructivism if adequate opportunities for drawing inferences from independent observation were given, instead of telling the ideas directly after giving the learning activities.
- Unit four, (Through the alimentary canal) and the last portions of units 6 and 10 do not agree with constructivism as the ideas and concepts are presented directly before the students instead of letting them to construct their own ideas. Thus some of the lessons do not go in tune with constructivism.
- Activities are not sufficient to attain the learning outcome- ‘understanding the importance of maintaining body hygiene and practice’ in unit four. In Unit seven, even though the content is almost sufficient the activities such as ‘Ball in the funnel’ (inverted), ‘filling the balloon’ and ‘pressure everywhere’ do not work properly. Similarly in Unit 9, the activity given under the title ‘Transmission of heat in metals’ is difficult to perform. It is important to note that the content related to adulterants in food substances is not sufficient.

- In some of the units , the pictures, graphs etc are not sufficient or clear. In many instances, the illustrations given are vague, not adequately labelled, or not suited to the learning activity. For example, in Unit1,the area “agriculture and cattle rearing” is introduced as a part of integrated farming. But instead of giving the picture of cattle rearing, the picture of ‘ploughing using cattle’ is given. The other pictures indicate poultry farming and goat rearing respectively but they are not shown as a part of integrated farming. In the case of Unit 4, all the illustrations are vague. In page No 50, the third figure is expected to show a bird eating guava fruit but the picture looks as if it is a bat. The sixth one is too vague to be recognized. So these images does not help the child to get a mental image of what is expected. There are also images which are not suitable to the context of the portion under study. In page 58, the digestive systems of some animals are given. These images are neither clear, nor leading to any further discussion or activity. Therefore the relevance of these images in this context is not clear. In the case of illustration related to nutrition in amoeba, the food particle is too light in colour to catch the attention of the children. Further, the diagrams were not labeled so that it is not easy for the child to figure out the mode of nutrition in amoeba without the help of the teacher. In Unit 5, the picture of hydroelectric power station is not labeled so that the child can’t recognize the parts of a hydroelectric power station by itself. In Unit 9, page 121, the picture of an incubator is given, but it is not clear and the child can never find out what it is, without the help of a teacher.
- Some areas in the textbook need further explanation. For example, in unit 1, Detailing of only one type of grafting-i.e. approach grafting is given in the unit. After detailing the process of grafting, it would be better if the different situations in which grafting is used are also mentioned. In the area ‘Eco friendly pest control’, along with the application of bio-pesticides, the method of biological control should also have been included so that the students would develop an attitude towards the protection of the organisms that prey upon the pests. In Unit 4, the contents related to hygiene of food and hygiene of body for health protection’ and ‘Chew and grind’ ,need explanation. In Unit 6‘water purification’, in Unit7 ‘Bernoulli’s principle’ and in Unit 8 ‘The heart of organisms, need more explanation
- Unit 7 need simplification .
- There are no instances of disparity of any kind throughout the textbook

- In units 2,7 and 9 enough slots for the development of democratic values are not present
- In unit8 content enrichment is needed.
- It is better that the size of the textbook is reduced to that of the teacher text so that it will be handier to students. The quality of the printing should be raised so that the pictures depicted will become clear and self-explanatory.

SUGGESTIONS

Learning Outcomes

- Extended activities, individualized learning, peer tutoring, class test and retest and parallel group formation are the measures suggested by teachers for ensuring the learning outcomes in all learners
- For ensuring spiralling of learning outcomes from lower to higher classes, teachers recommended measures such as providing more examples, ensuring basic knowledge , including more content in the lower class text book.
- In order to complete the given learning outcome in a stipulated time teachers suggested the following measures: provision of more time, reduce the length of units, lessons and number of students in a particular class and increase the number of working days.

Learning Resources

- In the science text book include more learning activities for catering inclusive learning
 - Use simple vocabulary and improve the clarity in the contents of the text book
- The content should be based on the level of the students of standard 7.
- Improve the layout of the text book and make the pictures of the TB more clear and attractive .
- Learning activities are to be focused on the attainment of desired outcome from students
- Provide accessible, suitable and appropriate links/hints in the TB Provide ample opportunities of extended activities for enhancing creativity among students.
- Possibilities of various teaching learning strategies are to be considered in the textbook.

- Provide opportunity for field trip
- Provision of slots to make use of local resources, library, laboratory etc.
- In order to promote values and attitudes among students, the activity provided in textbook are to be from surroundings which are familiar to teachers and students..
- Provision of activities in the text book which cater the heterogeneous group of learners.
- Provision for extra reading materials .
- Provision of more periods for each unit for the transaction of lessons.
- Provision of more time for processing discourses.
- To make teacher text and TB complementary, provide more details, clarify hard spots and provide link talks and discussion points in TT.
- Provision of clear text related hints
- There should be conceptual clarity in TT
- Provision of more reference books , facility for visiting sites, additional resources, sample teaching manual and instructions for the preparation a TM
- Clarifications regarding the cultural historical backgrounds of the literacy pieces provided in the TB are to be given in TT.
- Provision of proper training/awareness in CE
- Provision of more time for recording CE
- Provision proper instructions for CE related to each discourse
- Appropriate evaluation tools are to be incorporated in TT.

The following suggestions are made by teachers to improve the facilities in schools such as lab, library, ICT, display board, periodicals, club and corner for providing learning activities to students.

Lab

- Provide more equipment
- Provide financial aid and more facilities
- Provide subject related CD's
- Provide training for making use of the facilities of the lab.

Library

- Provide more reference books
- Provide contemporary literary pieces
- Library should be equipped with all modern facilities
- Provide financial aid for improving library facilities .
- Provide a separate room for library.
- Aided schools are also to be considered for providing the financial aid form the part of the govt., SSA, RMSA.

ICT

- Provide computers both for UP and HS
- Provide Financial support
- Provide Separate smart classroom
- Provide ICT enabled classrooms
- Provide subject related CD's and projectors

Display Board should be provided in all schools

Periodicals

- Provide financial aid for buying magazines
- Supply of free periodicals to all govt./aided school.

Club

- Allot separate period for club activities
- Reduce the content and activities in the TB to make the club activities more effective
- Provide sufficient space for functioning the **corner**

Suggestions for improvement in the area of Art, Sports, Health and Work experience

Art

- Appoint specialized teachers for art.
- Provide support from LSG.

- Conduct training programmes for other subject teachers to equip them to handle Art classes.

Sports

- Appoint physical education teachers at the earliest
- Local self-government should support the teachers
- Provide financial aid.

Health

- Provide nurses/health worker in school
- Provide training and awareness classes to all teachers
- Give training to teachers in Yoga classes.

Work experience

- Appoint WE teachers
- Allot fund by the LSG to buy materials for WE
- Provide training for all teachers.

Learning Process

The suggestions to overcome difficulties experienced by teachers in the various areas are listed under appropriate heads:-

a. Learning Outcomes:

- The learning outcomes are to be made more clear and simple in the teacher text.

b. Integrating arts, sports, health and work experience:

- Expert teachers in the field of arts, sports and work experience need to be appointed.
- More sports and arts activities are to be provided
- A few teachers demand for more training in the field of arts, sports and work experience.

c. Life skills:

- More life oriented examples should be included in the text book.

d. Utilizing learning resources:

- Required number of learning aids should be provided.

- The availability of teacher text should be increased.
- The skills and attitudes of learners to be attained in each unit are to be decided and required materials should be provided.
- e. Slots for ICT:
 - Provide more teachers and equipment to enhance ICT.
 - Required number of computers and projectors should be made available
 - ICT orientation should be provided in each lesson.
 - Provide smart classrooms.
 - One laptop should be provided per class with internet facilities.
 - The specific areas in which the possibilities of ICT are to be implemented should also be defined.
 - Include more ICT based activities in the lessons and provide other ICT possibilities as resources.
 - Provide more training in ICT.
 - Include more community bound or society related activities in the lessons.
 - Provide opportunities for teachers to perform society related activities.
 - All the teachers should come well prepared with the materials required for handling the differently abled.
 - Specific hints and simple activities for differently abled should be provided in the text book and teacher text in order to ensure learning and to bring all of them to a minimum level of achievement.
 - Instead of providing separate books for differently abled, include activities which can be done along with the learning process.
 - More examples are to be provided in order to increase the standard of differently abled .
 - Provide special training and service of resource teachers to bring learning outcomes to the differently abled.
 - There should be ample opportunities for encouraging the differently abled.
 - Provide separate modules and special schools for differently abled.
 - Provide orientation on the learning skills for the differently abled learners.
 - More clarity is required in Continuous evaluation:
 - .Areas to develop social commitment are to be included.
 - The possibilities of issue based learning have to be increased in the new curriculum.

Remedial measures suggested by Science Teachers for tackling the difficulties in enriching the abilities of gifted learners are listed below:-

- Include more materials for extra reading
- Provide more activities and possibilities for the gifted in the text book and teacher text
- Provide separate activity book for the gifted
- Provide chances for clustering and sharing of the gifted.
- Give importance to these areas in training

Other suggestions made by teachers (Miscellaneous)

- Some teachers suggest that the participation of parents should be ensured in PTA/CPTA.
- Proper awareness should be imparted to parents and society. Many teachers complain that there is lack of time in planning and implementing learning activities.
- Proper instruction can be given in the cluster meetings. The cluster level training should be improved by appointing trainers.
- The present teacher training should be made more effective.
- Few teachers are of the opinion that the content should be reduced.
- Some teachers demand that the knowledge of the teachers in content area should be enhanced through training.
- There should be proper planning in this field.
- The teachers should be provided with model lesson plans.
- More importance should be given to activities in learning.
- There should be maximum utilization of issue based learning.
- Necessary support mechanism should be provided giving thrust to the learning process.
- Some teachers complain about the over-crowded classrooms which creates difficulty.
- There is also lack of space.
- Few teachers demand to implement the concept of simple to concept in the learning process.
- Some teachers are of the opinion that it will be better to include experiments in the examinations.

EVALUATION

Suggestions put forward by teachers for improvement regarding the areas of continuous evaluation strategies are:

Process evaluation-

- Suggest process to be evaluated in unit
- Avoid stage wise evaluation
- External evaluation and gallpole
- Include levels of differently abled children
- Provide separate worksheet for units

Port folio

- Collection of more pictures, discussion in class PTA
- Note book itself should be fort polio
- More training needed
- Seeking help of class mates

Unit evaluation

- Implement school level evaluation instesd of unit evaluation
- Include adequate questionnaire\worksheet in TT, Unified evaluation

Grading

- Needs clarity, give score along with grade

Recording

- Provide a model for recording
- Keep the records of grading
- Provide printed indicators
- More training needed
- Simple recording system required
- Prepare a State wise model

Evaluation related to arts, sports and work experience effectively.

The following suggestions are made by teachers for effective evaluation related to arts and sports activity learning:

- Appoint training teachers
- Give in-service training
- Improve infrastructure
- Complete the activities within the time limit
- Provide evaluation tools and work sheet
- Give classes of resourceful teachers

Social Science

I – Learning Outcomes

1. Majority (88.89%) of the Social Science teachers of VII standard have clear idea regarding the characteristic features of the learning outcomes envisaged in the curriculum 2013. The remaining teachers (11.11%) needed more clarity regarding the features of learning outcomes like those that the learner is expected to achieve through subject learning, those that can be observed and measured, those that can be attained long term or short term, process oriented learning outcomes, those that tend to enhance values, attitudes, and social commitment, Co-operative learning, ICT oriented learning, Inclusive education, Life skill oriented education, Problem solving skill, Tolerance and love, and co-operation to inculcate nationality
2. Majority of Social Science teachers (62.09%) could not ensure the expected learning outcomes in all the learners through the transaction of the content. Teachers adopt various teaching learning strategies /techniques like Remedial teaching, Adaptation, ICT usage, extended activities, situational learning, peer tutoring, Life experiences and Co-operative learning, etc. for achieving the learning outcomes.
3. Majority of teachers (63.40%) in Social Science are able to differentiate short term and long term learning outcomes to some extent only whereas 35.29% of teachers were able to differentiate between short term and long term learning outcomes to a great extent. However 1.31% could not at all differentiate short term and long term learning outcomes.
4. A great majority (90.20%) of teachers opined that spiraling of learning outcomes are ensured so as to ensure the continuity and development from lower to higher classes whereas 9.80% did not..
5. Majority of teachers in Social Science (86.27%) are of the opinion that the learning outcomes given in different units are observable and measurable whereas 14% of teachers disagreed.
6. More than half (58.82%) of teachers in Social Science responded that they could understand the ideas/skills to be acquired from each unit of Social Science text book to a great extent through learning outcomes; 37.91% could understand the ideas/skills to be acquired to some extent only. It is noteworthy that 3.27% of teachers

couldn't understand the ideas/ skills to be acquired from each unit of Social Science text book at all through the learning outcomes

7. About half of Teachers (55.26%) responded that learning outcomes are age specific to a great extent, 39.87% of teachers opined that learning outcomes are age specific to some extent only. However, 4.58% of teachers opined that learning outcomes are not at all age specific.
8. More than half of Teachers (57.52%), reported that learning outcomes are helpful to some extent only, whereas only 32.22% of teachers in Social Science opined that the learning outcomes are helpful for self- evaluation to a great extent. However 3.27% of teachers opined that the learning outcomes are not at all helpful for self-evaluation.
9. More than half (56.21%) of teachers in Social Science reported that the time bound attainment of learning outcomes is possible, 43.79% of teachers opined that time bound attainment of learning outcomes is not possible. Lack of time, excess content, extra duties given to teachers such as election duty, census, youth festivals etc., Presence of differently abled students, Shortage of teachers in IT, work experience, art education and health education, Duration of the learning process and lack of proper language skills of the learners were the various reasons mentioned by Social Science Teachers that obstruct the time-bound attainment of learning outcomes.
10. Though majority of teachers (90.85%) reported that outcome focused methodology is helpful in ensuring the level of learning envisaged by RTE, it is noteworthy that 9.15% have the opinion that the outcome focused methodology is not helpful in ensuring the level of learning envisaged by RTE.

II –Learning Resources

1. Even though majority of teachers favours the most of the characteristics of the Social Science textbook, such as Content appropriate to the level of the learners, Conceptual Clarity, Adequate learning activities are given in the Text book to achieve the learning outcomes, Language appropriate to the level of learners, Pictures, lay-out,etc., arouse interest in the learners, 56.86% of teachers opined that those activities considering different levels of students are not present in the Social Science text book. However, according to a significant number of teachers, higher level of content than the level of learners and ambiguity of the content are unfavourable characteristics of the Social Science Textbook. The other reasons

pointed out by the teachers who disagree with the features of Social Science text books are lack of activities for catering to CWSN, non-learner-friendly layout and non-attractive test books, insufficient extended activities for enhancing creativity of gifted learners and lack of slots to make use of local resources.

2. Even though majority of teachers support the teacher text in many aspects such as the TT being helpful in preparing TM, providing clarity in professional ethics to be practiced by teachers, and helping the teacher in attaining clarity in the general approach of the curriculum, nearly half of the (48.37%) teachers reported that the division of periods given in teacher text is not suitable for its transaction. The other reasons pointed out by the teachers with regard to the teacher text are lack of clarification of hard spots, lack of additional resources, lack of sample teaching manual, lack of instructions for the preparation a TM, ambiguity in CE and TE, and lack of reference books.
3. The facilities pointed out by great majority of teachers are science club, science lab, mathematics club and reading corner. The facilities reported by majority of teachers are ICT, social science club, language lab, social science lab and science corner. The facilities such as mathematics corner and social science corner are reported only by half of the teachers.
4. More than half (50.98% and above) reported that the content of the lesson in the Social Science text book has given emphasis to utilize facilities such as club, library, ICT, Display board, and magazines to 'a great extent', while a significant percentage of teachers reported that the facilities like Lab and Corners re-emphasized to some extent only
5. Though more than half teachers (52.29% and above) reported that necessary instructions are provided in TT to a great extent to utilise facilities such as Lab. Library and ICT nearly 12.23% of the teachers reported that instructions are not all provided in the TT to utilize display board.
6. More than half of teachers reported that Magazines (50.33%) and clubs (51.63%) can be utilized for providing learning activities to great extent level. Facilities such as lab, library, ICT, display board, and corners are used in schools to some extent level for providing learning activities to students. The limitations pointed out by the teachers are inadequate infrastructure, lack of time and sufficient subject related reference books. A great majority of teachers (90% and above) reported that they use reading materials prepared by teachers, pictures, tables and work sheet for ensuring learning

out comes. Majority of teachers (68%-89%) reported that they are using local resources, resource CD, Diagrams, reports, and materials given by local government and other agencies for ensuring learning outcomes. Other resources used by teachers are ,magazines, field trips, giving rewards, daily news, and quiz.

7. Majority (66.01%) of teachers reported that adaptation for CWSN is made possible by resource teachers and text book (60.13%). The other facilities for CWSN adaptation are Infrastructure (52.94%) and teacher text (43.14%).
8. According to 43.14% of teachers in the Social Science text book there are slots for effective transaction of area related to art to a great extent dimension while 54.90% teachers opined to some extent level. About 39.87% of teachers reported that instructions for framing necessary resources for art education are there in TT to a great extent level and 56.21% teachers to some extent level. Only 18.30% teachers opined that suitable materials related to art are available in the school to great extent while 60.78% reported that resources are available to some extent level. 23.53% of teachers reported that resources are available in their schools to a great extent level while 57.52% reported it to some extent level. About 41.83% of teachers reported that they make use of TT for the area to a great extent level and 50.98% to some extent level. About 45.10% of teachers reported that they make use of activity book to a great extent level and 47.71% teachers opined to some extent level. The limitations with respect to art education pointed out by teachers lack of special teachers in schools to carry out activities related to art education. They opined that this is due to the lack of training, time, financial aid and materials.
9. As per the opinion of 35.95% of teachers, in the Social Science text book there are slots for effective transaction of area related to Sports and health to a great extent dimension while 51.63% teachers opined to some extent level. About 32.03% of teachers reported that instructions for arranging necessary resources for Sports and Health are there in TT to a great extent level and 52.29% teachers to some extent level. 22.22% teachers opined that suitable materials related to Sports and Health are available in the school to great extent while 57.62% reported that resources are available to some extent level. Very few (8.50%) reported that local resources are not at all available in their schools while 54.90% reported it to some extent level. About 33.99% of teachers reported that they make use of TT for the area to a great extent level and 49.02% to some extent level. About 40.52% of teachers reported that they make use of activity book to a great extent level and 41.83% teachers

opined to some extent level. The limitations pointed out are lack of physical education teachers to handle sports, insufficient sports equipment, lack playground, and lack of time.

10. It is found that 35.95% of teachers opined that in the Social Science text book there are slots for effective transaction of area related to work experience to a great extent dimension while 53.59% teachers opined to some extent level. About 34.64% of teachers reported that instructions for framing necessary resources for work experience are there in TT to a great extent level and 49.02% teachers to some extent level. 22.22% teachers opined that suitable materials related to work experience are available in the school to great extent while 50.33% reported that resources are available to some extent level. Very few (10.46%) reported that local resources are not at all available in their schools while 51.63% reported it to some extent level. About 30.72% of teachers reported that they make use of TT for the area to a great extent level and 52.29% to some extent level. About 37.25% of teachers reported that they make use of activity book to a great extent level and 43.14% teachers opined to some extent level.
11. A great majority (more than 90%) of teachers reported that they evaluate the products, find and encourage the learner's outstanding products and utilize the possibility of re-using products. It is significant to note that only very few (7.19%) of teachers opined that they conduct exhibition of the products in the school assembly and cultural programmes at BRC/CRC, Panchayath and state levels.

III – Findings based on learning Process

1. Majority of the teachers (60.78%) experience difficulties while planning learning activities
2. Learning of the different levels of learners', and 'Integrating arts, sports, health and work experience' are two thrust areas that posed difficulty to majority of Social Science Teachers. Others reported by teachers are Life skills, Utilising learning resources, Slots for ICT and Community bound activities.

The major remedial measures suggested by teachers to overcome difficulties experienced by them were that expert teachers for arts, sports and health should be appointed; more initiative to start smart classes and enhance other ICT facilities such as computers and projectors; resource teachers have to be appointed and more

periods have to be allotted to them in order to handle the differently abled; and, CE should be simplified and more clarity should be given.

3. Majority (91.50%) of teachers sometimes ensured the development of Process skills in the learners through learning process, only 7.84% always ensued it in the class. It is significant to note that few teachers (.65%) are not at all able to ensure the development of process skills.
4. Majority of Social Science teachers (86.27%) planned and implemented learning activities to attain conceptual clarity through multi-sensory experiences. However 13.73% of the teachers did not do so.
5. Majority of teachers (93.46%) reported that curriculum is appropriate for enabling learners to apply the knowledge acquired through learning process in their daily life, while 6.54% of them considered otherwise.
6. Majority of Teachers (93.46%) made use of learning strategies appropriate to the content. However 6.54% of Social Science teachers did not.
7. More than half (59.48%) of teachers planned and implemented learning activities to overcome the constraints of slow learners, two-fifths of teachers did not. Lack of time' and 'Lack of specially prepared learning materials' were the reasons mentioned for not planning and implementing learning activities to overcome the constraints of slow learners. Other reasons mentioned are large number of students in each division', 'Lack of interest of learners' and 'Lack of specially prepared learning equipment's for slow learners'.
8. Majority of the Social Science Teachers (62.77%) of class VII were not able to ensure the attainment of learning outcomes in different levels of learners.
9. Majority of Teachers (84.97%) implemented learning activities to enrich the abilities of gifted learners, 15.03% of them did not do so.
10. Majority of Social Science Teachers of class VII (75.82%) sometimes ensured the maximum participation of all learners while only 22.22% always ensured full learner participation.
11. More than half of Social Science Teachers (55.56%) of class VII always transacted the content in a learner friendly manner; 43.79% were sometimes learner friendly in content transaction. It is significant to note that a few Social Science Teachers were not learner friendly at all (0.65%) in content transaction

IV – Findings based on Evaluation

1. Even though majority (93.46%) of teachers got a clear idea about continuous evaluation, 6.54% of teachers did not get clarity. The areas where the Teachers in Mathematics required clarity were Assessment of Learning Process, Portfolio Assessment, Unit Assessment and Recording.
2. About 40% of teachers are not able to ensure learning and to provide support to learners though CE. 19.61% teachers reported that Lack of time was their major practical difficulty to ensure learning and providing support to learners while carrying out CE. The other difficulties reported are: Overcrowded class rooms, Complexity of learning process, Lack of awareness of the Learning Process and Recording and subsequent planning.
3. Even though majority of teachers (85.62%) are able to carry out learning process and evaluation simultaneously a significant number of teachers (14.38%)are not able to undertake the task successfully.
4. A great majority (96.08%) of teachers reported that the indicators given to the areas for evaluation are specific while 3.92% teachers reported that the indicators related to different areas of evaluation are not specific. Assessment of Learning Process, Portfolio Assessment and Unit Assessment were the major areas where indicators were found to be lacking in specificity according to some Teachers.
5. Majority of teachers (79.74%) reported that lack of time was their major problem in conducting assessment of learning process. Other problems reported are overcrowded classrooms and lack of suitable criteria.
6. A great majority of teachers reported that they provide opportunities for self-evaluation (96.08%) and peer evaluation (89.54%). But it is significant to note that 3.92% of teachers are not all providing any opportunity for peer evaluation and 10.46% for self-evaluation.
7. Even though majority of teachers (71.90%) prepare indicators for evaluation through classroom room discussions, a significant percentage of learners also prepare indicators themselves (13.73%). It is also found 59.48% of teachers themselves prepare indicators for evaluation. It is clear that majority of teachers are not concerned with preparation of indicators for evaluation by learners.

8. Even though majority of teachers (95.42%) are providing ample opportunity for learners to present their products related to self-evaluation and peer evaluation, 4.58% are not providing such opportunities.
9. Even though majority (86.27%) of teachers is making necessary changes in the classroom process considering the learners' evaluation, 13.73% of teachers are not making necessary changes. The necessary changes incorporated are Conducting discussions, More usage of ICT, Simplifying activities, Improvising Worksheets, Dividing and Rotating responsibilities, conducting extra classes during holidays with the participation of voluntary organizations, Peer group teaching/tutoring, conducting Debates, Quiz, and Discussions, Grouping students and making learners leaders based on skills and rotation of leader roles, Ability grouping, and Reciprocal evaluation by groups.
10. Class test (95.42%) and quiz (90.42%) are the most popular tools used by teachers for unit evaluation. Along with open book test teachers use variety of evaluation tools/ techniques such as Seminar, Work sheet, Project, Assignments, Debate, Discussion, Interview report, Analyzing portfolio, Tabulation, Learning maps, Survey, Checklists, Flow charts and Diagrams
11. Teachers in Social Science consider notebook, worksheet, Answer sheets of unit wise assessment, Project/seminar reports, Writings, and Short notes or unit evaluation, among which notebooks and Answer sheets of unit wise assessments are the most widely used records (91.50%). Teachers also use Worksheet, Writings, Short notes, Project/seminar reports, Preparation of maps, albums, Collections, Participation in group activities, Club activities, Map reading, Preparation of flowchart, Portfolio preparation, Quiz, Involvement in social science fairs.
12. A great majority of teachers (99.35%) reported that they provide feedback based on continuous assessment to learners and 81.05% teachers provide feedback to parents. It is significant to note that 18.95% of teachers are not giving feed to parents.
13. Majority of teachers (91.50%) reported that they provide remedial teaching based on the feedback obtained from continuous evaluation for learners, while 8.50% of teachers are not doing so. The strategies adopted by teachers for remedial instruction include giving support to parents (79.74%), giving follow up activities (71.24%), peer tutoring(47.71%) and changing the process (45.75%). The other strategies used by teachers includes Group activities, Special classes, Remedial teaching, Repeated reading and writing, and Use of learning aids.

14. Even though majority of teachers (77.78%) accurately record the details of continuous evaluation, 22.22% teachers do not do so.
15. Majority (61.44%) of teachers are framing different strategies for CWSN learners. However it is significant to note that 38.56% of teachers are not framing different strategies for CWSN learners. Special evaluation strategies adopted for CWSN are Drawing pictures (picturisation) and Colouring, using questions and evaluation based on CWSN level, Peer tutoring, Oral test, Specially prepared TLM activities, Involvement of CWSN (IED) teachers, Dramatization, Joining parts in maps and Using Songs, Role play and Puzzles
16. Majority of teachers (91.50%) reported that they have a clear awareness about TE to a great extent level. 82.35% of teachers reported that tools adopted for TE are adequate for evaluating the learning outcomes while 71.90% opined that TE includes variety of questions which give emphasis to thinking skills. However, it is notable that 17.65% of teachers opined that the tools adopted for term evaluation are adequate only to some extent and 28.10% of opined that term evaluation include variety of questions which give emphasis to thinking skills only to some extent.
17. Majority of teachers (76.47%) face no difficulties regarding TE whereas a significant number (23.53%) of teachers reported that they face difficulties related to TE. The difficulties reported are, difficulty in grading, and difficulty in recording and inadequate evaluation strategies. Other difficulties experienced are 'difficulty in conducting seminars', abundance of content, and lack of time.
18. 62.09% of Teachers are able to conduct evaluation related to arts, sports and work experience effectively. However, a significant number of Teachers (37.91%) are not able to conduct evaluation related to arts, sports and work experience effectively.
19. Teachers responded that they carry out recording and evaluation of interpersonal skill (89.87%), decision making (81.01%), self-awareness (78.48%), communication skill (70.25%), Empathy (64.56%), Coping with emotions (60.13%), Problem solving ability (54.43%), Creative thinking (51.27%), Critical thinking (44.94%) and Coping with stress (42.41%). It is notable that Critical thinking and Coping with stress is not given much importance by more than half of Social Science Teachers in carrying out recording and evaluation of socio-emotional areas.

V –Findings based on Adequacy of resources in the Textbook

1. Majority of teachers (85.62%) reported that activities that help students to realise the rights and duties of a citizen and act accordingly are included in the Text Book to a great extent level. Other aspects of the Text book and the corresponding number of Teachers who endorsed them to a great extent level are ‘Text Book contains activities that are capable of developing values like civic sense, secularism, patriotism, respect towards national leaders, tolerance, co-operation, ability to respond and react in a situation (84.31%), activities that enable students to understand and act against the human interventions that bring about an adverse effect on Earth’s ecology are included in the Text Book (83.01%), different techniques/ strategies of learning suitable for knowledge construction are included in the activities [e.g. dialogues, interviews, seminars, projects, etc.](82.35%), there are activities that help students to realize how natural phenomena affects one’s life (73.20%), there are opportunities/ instructions to use secondary and tertiary sources apart from Text Books for Knowledge construction (72.90%), there is sufficient content in the Text Book to create awareness in the students about production, distribution, consumption, distribution of wealth, etc. (72.90%), there are activities suitable for developing a positive attitude towards protecting and maintaining our cultural heritage (71.24%), there are activities that help students to analyze historical events and to form a futuristic outlook (68.63%) and the contents in the Text book enable the students to think and analyze critically about the social problems and act towards social welfare(61.44%). However a significant number of Teachers (ranging from 15.69% to 38.56%) consider these aspects to be included in the TB to some extent only.
- Majority of Teachers opined that the Teacher Text (TT), to a great extent, provides adequate information regarding the learning objectives of Social Science text (83.01%) and gives a clear indication regarding how to plan each activity to ensure the achievement of targeted learning outcome (72.55%). However 55.25% responded that the TT provides adequate extra knowledge in the conceptualization of contents to some extent only. A significant number of Teachers (41.18%) also were of the opinion that Different strategies for learning Social Science are mentioned in the Teacher Text to some extent only.

- Majority of Teachers experienced difficulties in relating the learning tasks with current social events (95.42%), providing other resources for the collection of knowledge (84.97%), developing worksheets that are capable of realizing the learning outcomes and to assess whether the students have attained them (87.58%), presenting problems in relation with life (77.78%), providing activities that help in conceptualizing abstract ideas through a concrete approach (77.12%), providing activities for the differently abled students (64.05%) and significant number of them experienced difficulties in transacting the lessons according to the levels of students (43.79%).

VI – Findings based on Classroom Observation

- Only few teachers have prepared TM using additional resources and creative activities other than Teacher Text, whereas just more than half of them prepared the TM using essential resources and activities. It is also observed few of the TMs were prepared based on the curricular approach to some extent and some of the teaching manuals needs improvement since resources and activities to be used were not at all included in it.
- It is observed that some teachers ensured the necessary pre-requisites using variety of creative activities whereas some teachers did not provide any activities at all, to ensure necessary pre-requisites.
- Some teachers provided life-oriented and thought provoking activities like description, stories and leaning materials for developing interest and motivation among the learners. At the same for some, motivation was limited to only describing the content and asking questions .
- In some of the classes, the learning activities were very mechanical, whereas they were effective in some of the classes. Essential aspects like Sequential order, spontaneous progress in learning, timely recording in TM etc were ignored by a significant number of Teachers. Only a few used innovative learning aids, and aids prepared by local resources, for attaining conceptual clarity. Learner support in knowledge construction through variety of learning strategies including reflective questioning and debating was lacking in majority of the classes observed. A few teachers are providing slots for learning activities to develop attitudes, values and social responsibilities stipulated in the content for intellectual and emotional development, they helped learners to identify their roles and ensured their

involvement in group and individual activities; and helped learners to identify their roles in learning situations correctly. However these were not seen in majority of the classes.

- Very few teachers created infrastructure/ICT facilities and independent social and emotional environment suitable for learning activities for all types of learners. It is serious to note that a significant number of teachers are not even using available infrastructure/ICT facilities.
- Mentoring was a strategy adopted by nearly half of the teachers where as majority of them made only essential interventions as teachers to attain learning outcomes/transaction of content.
- Some Teachers provided variety of opportunities for reflective thinking in the concerned class itself. One third of the teachers did not provide any situation at all for reflective thinking in the class.
- In some of the classes, no consolidation of lessons was done at all.
- Evaluation as envisaged by curriculum was not followed by some of the teachers whose classes were observed

Generally, the performance of teachers is average with regard to the components like Teaching Manual preparation, learning environment, classroom intervention and evaluation process. This underscores the importance of equipping the Social Science Teachers with necessary competencies and skills for making the learning process oriented learner friendly.

VII – Findings based on Answer Script Analysis of Social Science :Error Analysis

- With regard to questions British East India company, more than half of the students have responded with lack of clarity as they lack the knowledge of content
- Response without understanding the concept is also seen for th questions related to the areas –Middle ages, Independence struggle and Renaissance
- Meaningful conclusion have been reached by a very few (negligible) number of students.
- Majority of the students have answers that have partially correct. This is due to the lack of internalization of the concepts.
- Students need more help in developing skills of observation, comparison, analysis, and using them to reach meaningful conclusions

- It should be evaluated whether the learning outcome has been suitably presented considering the social and psychological condition of the learners.
- It should be verified whether the TE questions were suitable to arouse interest or were capable of generating reflective thinking of the learners

VIII – Findings based on Textbook Analysis: Social Science

- First unit itself is ‘Europe in the path of Transformation’. Although Lessons are suitable for attaining the learning outcomes, it’s difficult to correlate not only ‘Humanism and renaissance’ but most of the place names and names of persons also to the previous knowledge of the student. Though new knowledge is formed in children, the recognition of the social awareness and personal thought are not being encouraged. The method of progressing from ‘the known to the unknown’ is not stressed.
- The content is sufficient to acquire learning objectives to a certain extent. Some part of the content is above the child’s mental, social, and intellectual standards. Explanation should be presented in simple manner
- More activities are needed to explain the relation between individual and society are not stressed in many of the units
- Though learning activities are different in nature, the areas like comparison, observation, analysis, inferences etc are not stressed. The possibilities of ICT are under-utilized in some of the units, especially Unit I
- Content is presented directly. Opportunities for conducting group discussion or deriving findings is less
- The suffering and sacrifices of the leaders who took part in freedom struggle and succumbed to death enduring the cruel force of the British are not highlighted. The style of dramatics is not at all depended upon. (used)
- **In many of the units, undue importance given to learning outcomes and the abundance of content keep the children away from the process of constructing knowledge for achieving values, attitudes etc.**
- The contents of most of the units are presented in such a way that the students can understand, but they are not in tune with constructivism
- Though learning situations and opportunities that enable continuous evaluation are less in text book, the teacher text is used to solve this.

- The part “evaluate” which is included after the learning part is quite good.
- The text book is envisaged to develop democratic values.
- The things that encourage and help the teacher for additional reading are quite less.
Example: Explaining/discussing latitudes and longitudes.

IX. Practical Difficulties encountered by the teachers in various areas

A. Learning Outcome

11. Teachers experienced difficulty in attaining clarity regarding the features of learning outcomes like those that can be observed and measured, long term or short term, process oriented learning outcomes, those that tend to enhance values, attitudes, and social commitment, Co-operative learning, ICT oriented learning, Inclusive education, Life skill oriented education, Problem solving skill, Tolerance and love, and co-operation to inculcate nationality.
- Teachers experienced difficulty in ensuring the expected learning outcomes in all the learners through the transaction of the content. The difficulties pointed out by teachers to ensure the attainment of learning outcomes in different levels of learners are lack of time, lack of training for conducting the learning activities effectively, inadequate infrastructure, and over-crowded classrooms
 - Teachers of Social Science faced difficulty in understanding the ideas/skills to be acquired from each unit of Social Science textbook through learning outcomes.
 - Majority of teachers found that the content of the textbook is not age specific.
 - Lack of time, excess content, extra duties given to teachers such as election duty, census, youth festivals etc., Presence of differently abled students, Shortage of teachers in IT, work experience, art education and health education, Duration of the learning process and lack of proper language skills of the learners were the various other difficulties mentioned by Social Science Teachers that obstruct the time-bound attainment of learning outcomes.

B. Learning Resources

- Teachers found difficulty in finding activities considering different levels of students in the Social Science text book. Other difficulties reported are, higher level of content than the level of learners, ambiguity of the content, lack of activities for catering to CWSN, non-learner-friendly layout and non-attractive test books, insufficient extended activities for enhancing creativity of gifted learners and lack of slots to make use of local resources.

- Teachers found difficulty in many aspects such as the TT being not helpful in preparing TM, providing clarity in professional ethics to be practiced by teachers, and helping the teacher in attaining clarity in the general approach of the curriculum, lack of clarification of hard spots, lack of additional resources, lack of sample teaching manual, lack of instructions for the preparation a TM, ambiguity in CE and TE, and lack of hints for reference books, lack of instruction to utilise display board.
- The limitations pointed out by the teachers are inadequate infrastructure, lack of time and sufficient subject related reference books.
- The facilities such as mathematics corner and social science corner are reported to be lacking in many of the schools.
- Lack of time’ and ‘Lack of specially prepared learning materials’ are the reasons mentioned for not planning and implementing learning activities to overcome the constraints of slow learners. Other reasons mentioned are large number of students in each division’, ‘Lack of interest of learners’ and ‘Lack of specially prepared learning equipment for slow learners’.

Learning Process

- Teachers experience a lot of difficulties while planning learning activities Planning learning activities for different levels of learners’, and ‘Integrating arts, sports, health and work experience’ are two thrust areas that posed difficulty to majority of Social Science Teachers. Others reported by teachers are Integrating Lifeskills, Utilising learning resources, Slots for ICT and Community bound activities.
- Teachers find difficulty to ensure the development of process skills, planning and implementing learning activities to attain conceptual clarity through multi-sensory experiences.
- Lack of time’ and ‘Lack of specially prepared learning materials’ are the reasons mentioned for not planning and implementing learning activities to overcome the constraints of slow learners. Other reasons mentioned are large number of students in each division’, ‘Lack of interest of learners’ and ‘Lack of specially prepared learning equipment for slow learners’ are the other constraints to deal with multilevel of learners
- Difficulties reported by teachers in the implementation of activities to enrich abilities of gifted learners are Lack of time’ and ‘Lack of suitable learning resources’.

- Teachers responded that the difficulty to carry out learning process and evaluation simultaneously is due to lack of proper planning, Lack of proper planning, Lack of awareness about suitable strategies, giving more emphasis to Learning Process than Evaluation, Lack of time, Excess number of students and Delay in getting required documents from learners.

Evaluation

- The Teachers of Mathematics find difficulty in the Assessment of Learning Process, Portfolio Assessment, Unit Assessment and Recording.
- Lack of time was their major practical difficulty to ensure learning and providing support to learners while carrying out CE. The other difficulties reported are: Overcrowded class rooms, Complexity of learning process, Lack of awareness of the Learning Process and Recording and subsequent planning.
- Teachers find great difficulty to carry out learning process and evaluation simultaneously. Lack of time was their major problem in conducting assessment of learning process. Other problems reported are overcrowded classrooms and lack of suitable criteria. Assessment of Learning Process, Portfolio Assessment and Unit Assessment are the other major areas where indicators are found to be lacking in specificity according to some Teachers.
- Lack of time is one of the major practical difficulties encountered to ensure learning and providing support to learners while carrying out CE. The other difficulties reported are: Overcrowded class rooms, Complexity of learning process, Lack of awareness of the Learning Process and Recording and subsequent planning.
- Assessment of Learning Process, Portfolio Assessment and Unit Assessment were the major issues found to be lacking in specificity in the teacher text, according to some Teachers.
- Majority of teachers reported that lack of time was their major problem in conducting assessment of learning process. Other problems reported are overcrowded classrooms and lack of suitable criteria.
- The difficulties faced by teachers related to TE are difficulty in grading, and difficulty in recording and inadequate evaluation strategies. Other difficulties experienced are ‘difficulty in conducting seminars’, abundance of content, and lack of time.

- The practical difficulties mentioned by teachers to accurately record the details of continuous evaluation are Lack of time, Abundance of other activities, and Excess number of students (high teacher pupil ratio) and Lack of materials.
- The difficulties regarding TE that are reported are, difficulty in grading, and difficulty in recording and inadequate evaluation strategies. Other difficulties experienced are ‘difficulty in conducting seminars’, abundance of content, and lack of time. Other difficulties include difficulty in grading, and difficulty in recording and inadequate evaluation strategies. Other difficulties experienced are ‘difficulty in conducting seminars’, abundance of content, and lack of time
- The difficulties reported in Term End Evaluation are, difficulty in grading, and difficulty in recording and inadequate evaluation strategies. Other difficulties experienced are ‘difficulty in conducting seminars’, abundance of content, and lack of time.
- Teachers are not able to conduct evaluation related to arts, sports and work experience effectively. .
- It is notable that Critical thinking and Coping with stress is not given much importance by more than half of Social Science Teachers in carrying out recording and evaluation of socio-emotional areas

Resources in the TB

- The major difficulties reported by teachers about the availability of resources in the Textbook are lack of adequate extra knowledge in the conceptualization of contents and different strategies for teaching Social Science.
- Majority of Teachers experienced difficulties in relating the learning tasks with current social events, providing other resources for the collection of knowledge, developing worksheets that are capable of realizing the learning outcomes and to assess whether the students have attained them, presenting problems in relation with life, providing activities that help in conceptualizing abstract ideas through a concrete approach, providing activities for the differently abled students as significant number of them experienced difficulties in transacting the lessons according to the levels of students.
- Teachers found difficulty in getting more clarity regarding the features of learning outcomes like those that the learner is expected to achieve through subject learning, those that can be observed and measured, those that can be attained long term or

short term, process oriented learning outcomes, those that tend to enhance values, attitudes, and social commitment, Co-operative learning, ICT oriented learning, Inclusive education, Life skill oriented education, Problem solving skill, Tolerance and love, and co-operation to inculcate nationality.

- Time bound attainment of learning outcomes is found to be difficult due to lack of time, excess content, extra duties given to teachers such as election duty, census, youth festivals etc., Presence of differently abled students, Shortage of teachers in IT, work experience, art education and health education, Duration of the learning process and lack of proper language skills of the learners were the various reasons mentioned by Social Science Teachers that obstruct the time-bound attainment of learning outcomes.

F. Error Analysis

- With regard to questions British East India company, students have lack of clarity as they lack the knowledge of content, response without understanding the concept is also seen for the questions related to the areas –Middle ages, Independence struggle and Renaissance,
- Lack of meaningful conclusion and partially correct answers are found due to the lack of internalization of the concepts.
- Learners need more help in developing skills of observation, comparison, analysis, and using them to reach meaningful conclusions
- Learning Outcomes are not suitably presented considering the social and psychological condition of the learners.
- TE questions were not suitable to arouse interest or were capable of generating reflective thinking of the learners

G. Difficulties based on Textbook Analysis:Social Science

- . Although Lessons are suitable for attaining the learning outcomes, it's difficult to correlate not only 'Humanism and renaissance' but most of the place names and names of persons also to the previous knowledge of the student. Though new knowledge is formed in children, the recognition of the social awareness and personal thought are not being encouraged. The method of progressing from 'the known to the unknown' is not stressed.

- The content is above the child's mental, social, and intellectual standards. Explanation is not presented in simple manner
- Activities are less to explain the relation between individual and society are not stressed in many of the units
- Though learning activities are different in nature, the areas like comparison, observation, analysis, inferences etc are not stressed. The possibilities of ICT are under-utilised in some of the units, especially Unit I
- Content is presented directly. Opportunities for conducting group discussion or deriving findings is less
- The suffering and sacrifices of the leaders who took part in freedom struggle and succumbed to death enduring the cruel force of the British are not highlighted.
- In many of the units, undue importance given to learning outcomes and the abundance of content keep the children away from the process of constructing knowledge for achieving values, attitudes etc.
- The contents of most of the units are presented in such a way that the students can understand, but they are not in tune with constructivism
- Though learning situations and opportunities that enable continuous evaluation are less in text book, the teacher text is used to solve this.
- The things that encourage and help the teacher for additional reading are quite less. Example: Explaining/discussing latitudes and longitudes.

X. Suggestions emerged out of the study

A. Learning outcomes

- The teachers suggest that they need more clarity in learning outcome like short term and long term outcomes, learning outcomes that develop values, attitudes, and social commitment and that can be developed through collaborative learning to get clear idea regarding the characteristic features of the learning outcomes envisaged in the curriculum 2013
- Teachers suggest various teaching learning methods like remedial teaching, adaptation, provision for ICT usage, provision for extended activities, situational learning, peer tutoring, life experience and co-operative work for achieving the learning outcomes.
- The teachers who opined that the spiralling is not done suggested including the same group of teachers in preparing the textbooks from class I to VII to ensure spiralling.

- Teachers suggested to adopt various teaching learning strategies /techniques like Remedial teaching, Adaptation, ICT usage, extended activities, situational learning, peer tutoring, Life experiences and Co-operative learning, etc. for achieving the learning outcomes.

B. Learning resources

- The teachers suggest reducing the content and using language suitable for the age level of learners.
- The notable suggestions given by the teachers are to provide sufficient books and furniture, reference books, display board, subject specific magazines and periodicals contemporary literary pieces, modern facilities, financial aid for improving library facilities, separate room for library, provide financial aid to aided schools by government, SSA and RMSA, provide computers for both UP and HS, financial aid for buying computers, separate smart classroom as well as ICT enabled classrooms, equip them with adequate ICT training, provide with subject related CD's and projections, provide free periodicals to all schools, allot separate period for club activities and reduce the content and activities in the TB to make the club activities more effective.
- They suggested appointment of specialized teacher for teaching art education in schools and rendering help from local bodies to overcome these limitations.
- The teachers suggested appointing physical education teachers, providing the service of health worker in school and giving training to teachers to handle health education classes in schools to improve sports and health education.
- Teachers suggested appointing specialized teacher in work experience and providing financial aid to schools to buy raw materials.
- To encourage and to build up confidence of learners exhibitions and cultural programmes should be conducted to exhibit products in the school assembly at BRC/ CRC, Panchayath and State levels.

C. Learning process

- Major remedial measures suggested by teachers to overcome difficulties experienced by them were that expert teachers in the field of arts, sports and work experience need to be appointed; the Life skills and attitudes to be attained by the learners are to be fixed earlier and required materials should be provided; classrooms should be converted to smart class rooms and its utilization are to be ensured; learning

materials should be improved and should be acceptable to all; government has to provide aid for learning resources; teachers having expertise in handling the differently abled should be appointed and, CE should be recorded term-wise

- The remedial measures suggested by the teachers are need for more training and providing service of trained teachers to enrich the abilities of gifted learners.
- The major remedial measures suggested by teachers to overcome difficulties experienced by them in planning learning process were that expert teachers for arts, sports and health should be appointed; more initiative to start smart classes and enhance other ICT facilities such as computers and projectors; resource teachers have to be appointed and more periods have to be allotted to them in order to handle the differently abled; and, CE should be simplified and more clarity should be given.

D. Evaluation

- Suggestions put forward by teachers for improvement regarding the areas of continuous evaluation strategies are need of more planning, providing suitable worksheet for lessons and need of more clarity in recording
- The suitable changes incorporated are giving due consideration to slow learners, peer teaching and evaluation, used ICT possibilities in evaluation, changes strategies in evaluation, editing activity enhanced to reduce spelling mistakes, simplifying activities for slow learners, giving more importance to creative writings and identifying slow learners and ensuring their improvement through “Munnettam”
- The suggestions given by teachers are the appointment of trained teachers in arts, sports and work experience to ensure the effective evaluation, providing sufficient time to practice these subjects, providing separate period for teaching these areas and providing evaluation tools/ worksheets for evaluating these subjects.
- Teachers need to be given proper training to enable learners to prepare indicators for evaluation.
- Teachers need to make necessary changes in evaluation. Learners can be evaluated by conducting discussions, More usage of ICT, Simplifying activities, Improvising Worksheets, Dividing and Rotating responsibilities, conducting extra classes during holidays with the participation of voluntary organisations, Peer group teaching/tutoring, conducting Debates, Quiz, and Discussions, Grouping students and making learners leaders based on skills and rotation of leader roles, Ability grouping, and Reciprocal evaluation by groups.

- Along with open book test teachers should use variety of evaluation tools/ techniques such as Seminar, Work sheet, Project, Assignments, Debate, Discussion, Interview report, Analyzing portfolio, Tabulation, Learning maps, Survey, Checklists, Flow charts and Diagrams. Teachers should also use Worksheet Writings, Short notes, Project/seminar reports, Preparation of maps, albums, Collections, Participation in group activities, Club activities, Map reading, Preparation of flowchart, Portfolio preparation, Quiz, Involvement in social science fairs , Group activities, Special classes, Remedial teaching, Repeated reading and writing, and Use of learning aids.
- Special evaluation strategies which the teachers need to adopt for the evaluation of CWSN are Drawing pictures (picturisation) and Colouring, using questions and evaluation based on CWSN level, Peer tutoring, Oral test, Specially prepared TLM, activities, Involvement of CWSN (IED) teachers, Dramatisation, Joining parts in maps and Using Songs, Role play and Puzzles

E. Adequacy of resources in the Textbook

It is desirable to include provision for recitation, workshop for creative writing and identification of climax of compositions, activities like story completion and picture story suitable for creative writing. Activities such as storytelling, choreography and miming are to be included in the text book for acquiring language skills.

F. Classroom Observation

- Teachers should realise the need for preparing TM using additional resources and creative activities other than the activities given in the Textbook and Teacher text. So teachers should be trained for the same.
- Teachers need to provide a variety of learning activities to reinforce prerequisite.
- Teachers need to be empowered to create interest among the learners. They should use interesting activities, thought provoking questions, description and such other interesting learning materials.
- Learning activities need to be child oriented. Spontaneous progress in learning need to be recorded in the TM.
- It is advisable to use different types of learning aids/ available infrastructure/ICT facilities to make the class interesting.
- Teachers need to include slots for learning activities to develop attitudes values and social responsibilities for intellectual and emotional development in learners.
- Teacher need to intervene with all types of learners as mentors rather than teachers.

- Teachers are advised to make reflective notes for remedial teaching.
 - Every learning activity needs to be consolidated by the teacher.
 - Variety of evaluation strategies other than textual activities needs to be adopted.
- G. Suggestions based on Answer script analysis of Social Science: Error Analysis**
- Teachers need to ensure clarity and internalization of concept and content in every learner to avoid responses without understanding the content like the class about British East India Company.
 - Students need more help in developing skills of observation, comparison, analysis, and using them to reach meaningful conclusions
 - It should be evaluated whether the learning outcome has been suitably presented considering the social and psychological condition of the learners.
 - It should be verified whether the TE questions are suitable to arouse interest or are capable of generating reflective thinking of the learners.
- H. Suggestions to improve the Social Science Textbook**
- Content of the text should be in tune with Constructivism
 - Recognition of social awareness and personal thought are to be encouraged.
 - content should be according to the mental, social, and intellectual standard of the learner
 - . Explanation should be presented in simple manner
 - Sufficient activities are to be included to explain the relation between individual and society which are not stressed in many of the units
 - The possibilities of ICT are to be utilized in some of the units, especially Unit I
 - More opportunities need to be provided in the textbook for conducting group discussion or deriving findings
 - It is essential to highlight the suffering and sacrifices of the leaders who took part in freedom struggle and succumbed to death enduring the cruel force of the British.
 - In many of the units, undue importance is given to learning outcomes and the abundance of content keep the children away from the process of constructing knowledge for achieving values, attitudes etc.
 - The text book should be envisaged to develop democratic values.
 - Additional information and extra reading hints/links that encourage and help the teacher for additional reading are to be included. Eg: Explaining/discussing latitudes and longitudes.

Mathematics Class VII

Findings of the study related to Mathematics are as follows:

I. Findings based on Learning Outcomes

1. Majority (81.01%) of the Mathematics teachers of VII standard has clear idea regarding the characteristic features of the learning outcomes envisaged in the curriculum 2013. The remaining 18.99% of teachers need more clarity about the features of learning outcome such as process oriented learning outcomes and outcomes which can be developed through collaborative learning.
2. Study reveals that 74.68% of the teachers couldn't ensure the expected learning outcomes in all the learners through the transaction of the content. Teachers adopt various teaching learning methods like peer tutoring, simplification of the content, extended activities, and special training for achieving the learning outcomes.
3. Most of the teachers in Mathematics (66.46%) are able to differentiate short term and long term learning outcomes only to some extent level. Only 32.28% of teachers could differentiate between short term and long term learning outcomes to great extend level.
4. Majority (93.67%) of teachers responded that spiraling of learning outcomes is ensured so as to ensure the continuity and development from lower to higher classes.
5. Most of the teachers (90.50%) in Mathematics are of the opinion that the learning outcomes given in different units are observable and measurable where as 9.50% of teachers disagree with it.
6. Study shows that 29.74% of Mathematics teachers were not able to understand the ideas/skills to be acquired from each unit through the learning outcomes.
7. About half of the teachers (50.63%) responded that the learning outcomes given in different units of Mathematics textbooks of class VII are not according to the age level of learners.
8. Analysis reveals that 58.86% of Mathematics teachers have the opinion that the learning outcomes are helpful for self-evaluation only to some extent level where as 39.24% opined that it is to a great extent level.
9. Most of the (60.76%) teachers responded that the time bound completion of learning outcomes is not possible.

10. Majority (87.34%) of teachers opined that outcome focused methodology is helpful in ensuring the attainment of the level of learning envisaged by Right to education (RTE), it is noteworthy that 12.65% of teachers have the opinion that the outcome focused methodology is not helpful in ensuring the attainment level of learning envisaged by RTE.

II. Findings based on Learning Resources

1. Even though majority (70 – 98.73%) of teachers favours most of the characteristics of the Mathematics textbooks such as Slots for ICT are given for effective learning, Units are framed considering the possibilities of varied learning strategies, spirally arranged concepts, Content appropriate to the level of the learners and Conceptual Clarity. 53.80% of teachers reported that activities considering different levels of learners are not properly incorporated given in the text book. However a considerable number of teachers have the opinion that the content and the language used are not appropriate to the level of learners.
2. Even though majority (70 – 97.47%) of teachers supports the teacher text in many aspects, a few teachers have reported that the division of periods given in teacher text is not suitable for its proper transaction. Similarly nearly 10% of teachers reported that certain aspects such as instructions for CE and TE, and suitable tools for evaluation are absent in the teacher text and the reference books and websites referred in the teacher text are not helpful for the proper classroom transactions.
3. Majority (70 – 94%) of the teachers responded that the most of the facilities are ICT, Science lab, Science club, Social science club, Reading corner, Language lab, Display board Maths lab and Maths corner. Schools are having learning facilities, Maths club, ICT, Science lab, Science club, Social science club, Reading corner, language lab, Display board, Maths lab and Maths corner.
4. Even though majority of teachers (53% and above) reported that the content in the mathematics text book has given emphasis to a great extent level to utilise ICT and club. A significant percentage of teachers reported that the content of the lessons in mathematics, TB has given emphasis to utilise Lab., Library and Display board are only to some extent level. It is notable that nearly 10% of teachers reported that the content of the lesson is not at all has given emphasis to utilisedisplay boards, magazines and corner.

5. Majority of teachers (55.7% and above) reported that suitable instructions were given in the TT to a great extent to utilize the facilities in schools such as lab, I.C.T., and clubs. While about 36.08% to 46.84% of teachers make use of these to some extent level.
6. Facilities such as lab, library, ICT, display board, periodicals, club and corner are used in schools to some extent level for providing learning activities to learners.
7. Majority (56.33%) of teachers were utilizing clubs for learning activities to a great extent whereas nearly half of the teachers opined that they can utilize all the facilities only to some extent. More over a significant percentage of teachers (13.29%) opined that they not at all utilize Corner in learning activities.
8. Teachers reported that they were utilizing variety of materials such as reading materials prepared by the teachers, local resources, resource CD (video and audio), pictures, tables, materials given by local government and other agencies, reports, worksheets and diagrams other than TT and TB were used. Most of the teachers opined that they are also using magazines, field trips, Paper cutting, gifts for encouragements and daily news quiz.
9. Majority (73.42%) of teachers reported that adaptation for CWSN is made by resource teachers. The other facilities which help in adaptation were text books and teacher text. Adaptation in infrastructure is carried out only by half of the teachers.
10. It is found that teaching learning resources in the area of art education were present in the TT only to some extent level.
11. It is found that teaching learning resources in the area of sports and health education were present in the TT only to some extent level.
12. It is found that teaching learning resources in the area of work experience were present in the TT only to some extent level.
13. Majority of teachers (greater than 90%) evaluate the products of learners, encourage learner's outstanding performance and reuse the products in class. It is significant to note that only a few teachers(6.96%) organize exhibitions by using learner's products in school assembly, cultural programs, BRC/ CRC level, Panchayat level and state level

III. Findings based on Learning Process

1. Majority (71.92%) of Mathematics teachers of class VII responded that they faced difficulty while planning the learning activities. Although the Mathematics Teachers experienced difficulty in various thrust areas, 'Integrating arts, sports, health and

work experience' and 'Learning of the different levels of learners', are two thrust areas that posed difficulty to majority (51.90 – 58.86%) of Mathematics Teachers who indicated that they experienced difficulties while planning the learning activities.

2. Although majority of Mathematics teachers of Std VII (79.75%) sometimes ensured the development of Process skills in the learners through learning process, only 14.56% could always ensure it in the class itself. Few teachers (5.70%) not at all ensured the development of process skills in the learners through the learning process in the class room.
3. Majority (79.75%) of Mathematics Teachers of Std VII planned and implemented learning activities to attain conceptual clarity through multi-sensory experiences. However 17.72% of the Teachers did not do so.
4. Although the curriculum is considered appropriate for enabling learners to apply the knowledge acquired through learning process in their daily life by majority (88.61%) of Mathematics Teachers of Standard VII, 11.39% of them considered otherwise.
5. Majority (79.11%) of Mathematics Teachers of Standard VII made use of learning strategies appropriate to the content. However more than one-fifth of Mathematics Teachers did not. For Mathematics Teachers, the learning strategies - Investigative learning was the most difficult learning strategy to use appropriate to the content and 'Difficulty in satisfying learners of different levels' was also reported.
6. Majority (60.13%) of Mathematics Teachers of class VII did not plan and implement learning activities to overcome the constraints of slow learners
7. Majority (67.72%) of the Mathematics Teachers of class VII did not ensure the attainment of learning outcomes in different levels of learners.
8. Although majority (79.11%) of Mathematics Teachers implemented learning activities to enrich the abilities of gifted learners, 20.89% of them did not do so.
9. Although a majority (82.28%) of Mathematics Teachers of class VII sometimes ensured the maximum participation of all learners, only 15.19% always ensured full learner participation.
10. It is found that 50% of Teachers of Std VII sometimes transacted the content in a learner friendly manner, whereas 48.10%% were always learner friendly in content

transaction. It is startling to note that that few Mathematics Teachers were not learner friendly at all (1.90%) in content transaction.

IV. Findings based on Evaluation

1. Even though majority (89.24%) of teachers got a clear idea about continuous assessment, about 10.76% teachers were not still got the idea and clarity about continuous assessment.
2. A very few teachers in Mathematics (15.19%) reported that they need clarity in process evaluation. It is followed by Assessment of Learning Process, Portfolio Assessment, Unit Assessment and Recording. Suggestions put forward by teachers for improving continuous evaluation were clarity in directions, one activity in one term, activity for differently abled learners, give more training, marking of each unit of subject concerned.
3. From the analysis it is clear that 40.5% of teachers were not able to ensure learning and to provide support to learners though CE.
4. A significant numbers of the teachers (32.91%) reported that Lack of awareness in CE was their major practical difficulty to ensure learning and providing support to learners while carrying out CE.
5. It is clear that even though majority of teachers were able to carry out learning process and evaluation simultaneously a significant number of teachers were not able to undertake the task successfully. 27.85% of teachers responded that the difficulty to carry out learning process and evaluation simultaneously is due to lack of proper planning
6. A significant number (27.85%) of teachers responded that the difficulty to carry out learning process and evaluation simultaneously is due to lack of proper planning.
7. It is significant to note that a significant percentage of teachers (39.37%) of teachers reported that the indicators related to different areas of evaluation are not specific.
8. It is found that a very few teachers in Mathematics (5.23%) reported that they need clarity in Unit Assessment. A very few needs clarity of indicators in Assessment of Learning Process and Portfolio Assessment.
9. Even though majority of teachers are providing opportunities for peer evaluation (87.97%) and self-evaluation (93.04%), a significant percentage of teachers (12.03%) are not providing opportunity for peer evaluation.

10. It is found that majority (67.72%) of teachers prepare indicators for evaluation, 36.71% of teachers derives it from classroom. It is clear that majority of teachers were not concerned with the preparation of indicators by learners.
11. From the analysis it is clear that even though majority of teachers in Mathematics (89.87%) are providing ample opportunity for learners to present their products related to self-evaluation and peer evaluation a significant number of teachers are not providing such opportunities.
12. It is clear that even though majority (86.08%) of teachers were making necessary changes in the classroom process considering the learners' evaluation, 13.92% of teachers were not making necessary changes. The necessary changes incorporated were activities based on level of learners, Given questions based on level of learners, Simplifying problem solving questions, Peer tutoring, Self-evaluation, Group activities, Identified easy ways for Mathematics and Remedial teaching to backward learners.
13. It is revealed that quiz (82.28%) and class tests (68.99%) are found to be the most popular tools used for unit evaluation. Along with open text book teachers use. Worksheets, projects, seminars, building activities and improvisations for unit evaluation.
14. Teachers in Mathematics consider notebook, worksheet, Answer sheets of unit wise assessment, Project/seminar reports, Writings, and Short notes for unit evaluation, among which notebook is the most widely used record. Apart from these they also use Charts, Experimental notes, Projects, Class preparations, Models, Mathematics dictionary, Preparation and Use of teaching aids, Products and collections for unit evaluation.
15. From the analysis it is found that even though a great majority (95.57%) of teachers was giving feedback based on CE to learners and majority of teachers (79.11%) to parents. A significant number of teachers were not providing feedback to parents and learners. But it is serious to consider this since feedback to learners is very important in learning process.
16. It is found that even though majority of teachers (84.18%) in Mathematics are conducting remedial teaching based on the feedback obtained from continuous evaluation for learners, a significant number of teachers (15.82%) were not taking any remedial measures based on continuous evaluation.

17. It is clear that remedial instruction is provided by changing the process, giving follow up activities and peer tutoring by about less than half of the teachers. The other methods reported by teachers for remedial teaching were providing worksheets, providing extra time and making use of gifted learners.
18. Majority of teachers (61.39%) were recording continuous evaluation, at the same time 38.61% teachers were not making accurate recording.
19. From the analysis it is very important to note that 48.10% of teachers are not framing separate evaluation strategies for CWSN learners. Special evaluation strategies adopted by the 50% of teachers are giving simple activities, Solving activities according to the level of learners, play activities, giving simple questions, Oral test, Drawing, Worksheets provided, Dictation, Peer tutoring, Given simple activities for each unit, special help to them by brilliant learners, Drawing and shading geometrical figures, Play games, Cutting of picture of stories and poems, Special classes in morning and evening and also copy writing.
20. Majority of teachers (86.71%) reported that they have clear awareness about TE to a great extent level. At the same time 79.11% of teachers reported that tools adopted for TE are adequate for evaluating the learning outcomes while 72.78% opined that TE includes varied questions which give emphasis to thinking skill.
 - a. Majority of teachers in Mathematics (84.18%) face no difficulties related to TE where as 15.82% have difficulties related to TE.
21. A few teachers reported that they experienced difficulties related to term evaluation and the difficulties were inadequate evaluation strategies (18.99%), difficulty in grading (23.42%) and difficulty in recording (11.27%)
22. It is significant to note that about 49% of the teachers were not able to conduct evaluation related to arts, sports and work experience effectively.
23. It is important to note that a significant number of teachers were not carrying out evaluation and recording of socio-emotional areas like empathy, problem solving skill, creative thinking, critical thinking and coping with stress under socio-emotional areas. Even though majority of teachers are evaluating and recording socio-emotional areas like interpersonal skills, decision making, self-awareness and communication skills, a significant number of teachers were not yet carrying out evaluation and recording in these areas.

V. Findings based on the adequacy of resources in the textbook: Mathematics

1. Majority (86.08%) of teachers reported that Teacher text in Mathematics is helpful to a great extent in enhancing conceptual knowledge of the content and 82.91% reported that teacher text is helpful to a great extent in planning class room activities, adequate pre-requisites required for conceptualization are available with the learners (78.48%), learners get opportunities for hypothesizing and generalization in the class(75.32%) and able to make the learners apply the ideas generated by them in new situations(74.68).
2. It is also found that a few(51.27%)of teachers reported that there are some more areas in the Mathematics content that requires more clarity for teachers (58.23), Activities can be done by the learners themselves are given to a great extent level (59.49), Able to carry out the activities given in the Side/ Boxes in the classroom (55.70), Explanations in the textbook can be understood by the learners themselves (58.23).
3. It is significant to note that, Learning activities given can be completed in a time-bound manner to some extent level by 48.10% of teachers while 5.43% reported that learning activities given in the text cannot be completed in a time-bound manner.
4. It is found that 59.49% of teachers are able to carry out activities related to ICT given in the textbook to some extent level and 6.33% are not at all carrying out the activities related to ICT
5. It is very important to note that majority of teachers (63.92%) reported that a child can analyze and solve a problem by himself/herself to some extent level using the Mathematics text book.

VI. Findings related to Class Observation: Mathematics

Finding based on performance of teachers with regard to the components like Teaching manual preparation, Preplanning, Interest and motivation, Learning activities, Learning environment, Class room intervention, evaluation and consolidation are given below.

- Observation of classes of teachers in Mathematics indicated that they have prepared TM using additional resources and activities creatively other than Teacher Text and a few teachers prepared the TM as per the curriculum using essential resources and activities. A very few teachers ensured the necessary pre-requisites using variety of creative activities, while majority of teachers provided a variety of learning activities to get adequate pre-requisites to all learners. At the same time pre-planning was not

made by in few classes. It is seen that only few teachers are providing slots for learning activities to develop attitudes, values and social responsibilities stipulated in the content for intellectual and emotional development. A few teachers provide learning activities based on available infrastructure/ICT facilities and creates essential situation necessary for independent social and emotional environment. It is serious to consider that one teacher was not even using available infrastructure/ICT facilities and in another case teacher - centered method was adopted. It is observed a very few teachers provide opportunity for reflective thinking. Also noted that four teachers mainly focused on timely evaluation and recording. It is found that about half of the teachers used variety of strategies for different types of evaluation, while other teachers were using variety of strategies for evaluating learning outcomes based on the content.

The performance of teachers is average with regard to the components like Teaching manual preparation, learning environment, classroom intervention and evaluation process.

VII. Findings based on Answer sheet analysis of Mathematics: Error analysis

1. The learners have not understood the features of parallelogram. 82% have the skill to measure length and angle. 18% have not acquired understanding about the measure of angles. With thorough conception of parallelism, only 50% of the sample could draw a parallelogram. The rest of the sample has to acquire the concept.
2. Majority (81%) of the learners were not attended the questions without answering. Though they have known about the area of a square, they have not understood about the area of a right angled triangle. The question was not at par with the expected learning outcome of the student. Such an activity has not been referred to either in the text book or the teacher text.
3. The activity was suitable for evaluating the learning outcome. But 75% of the learners were not able to explain the number property in the algebraic method or compare the number property in order to reach general conclusions. 75% of the learners could not analyze the question and reach its conclusion.
4. A great majority (90%) of the learners failed in expressing numbers as the product of powers of its prime factors. They were not able to analyses the question and reach conclusions.
5. 75% of learners failed to express the number property in algebraic form. The majority could not find out the relations and present them in algebraic method.

6. Only 18% of the learners were able to identify and express the peculiarities of the angles formed while lines intersect parallel lines. 82% did not get the understanding about the total of angle measures in a triangle.
7. It is significant to note that learners have not identified the features of a parallelogram.
8. For 90% of the learners the method of presentation of the unit named numbers in 6th std is difficult to comprehend.

VIII. Findings based on Textbook Analysis: Mathematics

The findings based on the analysis of basic science text book of standard 7 are given below.

1. Even though some of the lessons do justice to constructivist approach, some of them related to repeated multiplication, square and square root stoop to the level of mere statements. At the same time, lessons 3, 11 and 12 can be inferred only by learners who have higher order thinking skills. Lessons related to algebra couldn't do justice to constructivist approach completely.
2. Learning activities (content) are arranged in accordance with learning outcomes in all chapters. Chapter 4 and Chapter 7 related to speed calculation do not contain learning activities to achieve the expected learning outcomes.
3. The content of the 7th standard Mathematics is prepared/ arranged in a way suitable for processes oriented learning. The drawbacks that are there in certain part of the chapters of algebra, Repeated Multiplication, etc.
4. Variety in learning activities is there in the textbook. A lot of activities are provided in each unit which consider the individual differences and the multidimensional intelligence of the learner. In lessons like Parallel lines, square and square root in unit -2 more activities can be included.
5. The picture, cartoons, photo in seventh standard Mathematics text book are all clear and appropriate. Appropriate cartoons and pictures can be provided in all the units too.
6. The lessons which require more explanation in some of the topics like Parallel lines, Repeated multiplication, Square and square root, Ratio and Money math, etc.
7. There is a general difficulty in the unit associated with Algebra (unit 3, 11) in 7th standard Mathematics. There should be simple learning activities, which uses

examples from real life and relation between numbers to overcome the learners' inability to present common principles in algebraic forms.

8. There are possibilities for continuous evaluation in all the 14 units of standard 7. If worksheets that help to assess each learning outcome is given along with each unit, the process of continuous evaluation would become complete.
9. Content of the textbook tried to include lessons without any type of discrimination
10. Due care has been taken to include democratic values in appropriate situations. The examples of the lessons which included democratic values are Money Math, Speed Math, Ratio and Pie charts
11. As the base tool in the learning process of the learner, the layout of the text book carries due importance. Even though picture and cartoons are there, some parts of the text books don't look good.
12. Teacher text of Seventh standard enables the teachers to transact the learning outcomes effectively. More practical problems and worksheets connected with learning outcomes of each units should be included in the teacher text.
13. Some of the detailed explanation given in the TB should be shifted to the TT and the pages of the TB re-organized. Activities or hints suitable for the differently abled children are to be given in the TB and TT.
14. ICT possibilities should be in separate boxes that can be (easily) noticed.
15. Graphic depiction should be provided for higher order activities (Activities for higher standard).

Practical difficulties

Practical difficulties encountered by teachers are listed below

Learning outcome

- Teachers are facing difficulty with regard to the features of learning outcome such as observable and measurable, achieved in short term and long term, process oriented, outcomes which develop values and attitudes and social commitment and outcomes which can be developed through collaborative learning.
- Majority of mathematics teachers are facing difficulty to ensure the achievement of the expected learning outcomes through the transaction of the content.
- Majority (60.76%) of teachers reported that the time bound completion of learning outcomes given in mathematics textbook of class VII is not possible.

Learning resources

- Teachers found difficulty in finding activities considering different level of learners in the Mathematics text book.
- Teachers found difficulty in finding additional information for the transaction of the lessons. The other difficulties pointed out are allocation of periods and lack of hints/links to reference books/web sites.
- Teachers report that the division of periods given in teacher text is not suitable for its proper transaction. Similarly instructions for CE and TE and suitable tools for evaluation are absent in the teacher text and the reference books and websites referred in the teacher text are not helpful for proper classroom transactions. The reasons pointed out by the teachers who disagree with the features of mathematics text books are overcrowded classrooms, excessive number of activities which are more than the content of the TB, Lack of time for processing discourses., lack of details in TT, lack of clarification of hard spots, lack of link talks and discussion points, Text related hints are not clear, Lack of conceptual clarity in TT, Lack of explanation for certain areas in the CB, lack of reference books suggested in the TT, lack of facility for visiting sites, lack of availability of reference books., ambiguity in CE and TB, appropriate evaluation tools were not incorporated in TT.
- The limitations pointed out by the teachers were inadequate facilities, lack of equipment's, fund, furniture, time, contemporary literary pieces, sufficient computers, proper training to create awareness among the teachers, sufficient space to arrange reading corner, sufficient books and furniture, subject specific magazines and periodicals, related CDs, proper training for handling ICT, internet and projector, separate room for ICT, display boards, sufficient subject related reference books and teachers. The notable suggestions given by the teachers were to provide sufficient books and furniture, reference books, display board, subject specific magazines and periodicals contemporary literary pieces, modern facilities, financial aid for improving library facilities, separates room for library, provide financial aid to aided schools by government, SSA and RMSA, provide computers for both UP and HS, financial aid for buying computers, separate smart classroom as well as ICT enabled classrooms, equip them with adequate ICT training, provide with subject related CD's and projections, provide free periodicals to all schools,

allot separate period for club activities and reduce the content and activities in the TB to make the club activities more effective.

- The limitations pointed out were lack of physical education teachers to handle sports, inadequate sports equipment's, playground, fund and time. The teachers were also suggested for appointing physical education teachers, providing the service of health worker in schools and giving training to teachers to handle health education classes in schools to improve sports and health education.
- The limitations pointed out by the teachers were lack of teachers who are specially trained in carrying work education in schools and non-availability of raw materials to give training to learners. Teachers suggested that these limitations can be overcome by appointing specialized teachers in work experience and by providing financial aids to schools for the needed raw materials.
- It is significant to note that teachers normally do not get stages to organize exhibitions by using learner's products other than school assembly. There should be occasions for the learner to showcase his products in cultural programs, BRC/ CRC level, Panchayat level and State level

Learning process

- Lack of activities for inclusive learning, Lack of appropriate learning activities and Lack of previous knowledge are difficulties reported by the teachers while handling differently abled learners.
- The difficulties noted by the teachers are lack of activities for inclusive learning, difficult vocabulary which leads to lack of interest in reading, ambiguity in the content, links/hints in the TB are not accessible, suitable and appropriate, lack of local resources like library, expert session and the activities provided in textbook are from surrounding which the teachers are not familiar with.
- The teachers experiencing difficulty while making use of appropriate learning strategies. Investigative learning was the most difficult learning strategy to use appropriate to the content.
- Some teachers in Mathematics also suggested that they feel difficulty in satisfying learners of different levels
- 'Lack of time' and 'Lack of facilities/materials' were the major reasons that were mentioned by the Mathematics Teachers of Std VII who indicated that they faced difficulty while making use of appropriate learning strategies

- Conventional period system, Lack of adaptation for differently abled, Lack of interest of learners and parents and Lack of work sheets are the reasons for experiencing difficulty in utilising appropriate learning strategies
- Planning and implementing activities for different levels of learners and Lack of time were the major reasons that were mentioned by Mathematics Teachers of Std VII who indicated that they faced difficulty while planning and implementing learning activities to overcome the constraints of slow learners.
- Mathematics Teachers of Std VII faced difficulty in ensuring learning outcomes satisfactorily in different levels of learners.
- Teachers in Mathematics also reported the following difficulties in ensuring learning outcomes satisfactorily in different levels of learners, they are:
 - Lack of time and special training to tackle the differently abled learners.
 - All the lessons have to be completed within a stipulated period of time.
 - Learners cannot concentrate on their activities due to lack of interest and previous knowledge.
 - These learners are also not cooperative. Hence, they cannot be cared continuously.
 - The school environment is not suitable to them.
 - Special activities are essential to engage them. These should be included in the learning process.
 - Difficult to plan and implement activities suitable to them.
 - Special modules and appointment of specialist teachers for them.
 - Repeated absenteeism of these learners is also creating difficulty. Thus, all the learning outcomes cannot be attained properly but still the teachers are trying to instil necessary life skills.
 - Very difficult to manage them in the classroom.
 - Increase in the number of such learners is another issue.
 - Difficulty in providing individual care, special learning materials to handle the differently abled.
 - Cannot go deeper into the problems of these learners.
 - The low standard of these learners is another serious issue.
 - There is also high heterogeneity regarding their standards.
 - Many of them have no awareness regarding fundamental mathematical operations. Hence these learners cannot be brought to the good level of achievement.

- They cannot undertake most of the given activities.
- There is lack of self-motivated activities for the below average learners.
- They themselves and the parents are lacking awareness of the problems, needs and psychology of the differently abled.
- There is no enough support from the side of parents.
- There is lack of infrastructure facilities and trained/resource teachers.
- Separate text book for these learners. They are to be provided with special time, care, processes and learning materials.

Evaluation

- Teachers reported that Lack of awareness and clarity in CE are their major practical difficulties to ensure learning and providing support to learners while carrying out CE. The other difficulties reported are Lack of time, Complexity of learning process and Overcrowded class rooms.
- Lack of time and Lack of support of learners and parents are the major Difficulties of teachers while carrying continuous evaluation.
- Practical difficulties encountered by the teachers based on learning process and evaluations are:
 - Lack of time
 - Will take more time for marking
 - Lack of interest
 - Not doing homework/activities
 - Aptitude of learners
- Teachers (27.85%) reported that the difficulty to carry out learning process and evaluation simultaneously is due to lack of proper planning. The other difficulties reported are: lack of awareness about suitable strategies and giving more emphasis to learning process than evaluation.
- The practical difficulties encountered by the teachers whose are not recording continuous evaluation accurately are:
 - Lack of time
 - More number of learners
 - Difficulty in marking
 - Lack of understanding regarding continuous evaluation

- Existing grading system is too much
- Unavailability of grading format at time
- Abundance of content
- The practical difficulties reported are Lack of time, More number of learners, Difficulty in marking, Complexity of existing grading system lack of understanding regarding continuous evaluation, unavailability of grading format at time and abundance of content.
- The other difficulties reported by the teachers regarding the Term Evaluation are
- For all subjects grade for same mark is given
- Did not complete activities within the stipulated time
- Repeated questioning from each unit
- Differences in grading at H S level
- Complexity of existing grading system
- unavailability of grading format at time
- abundance of content
- A few teachers reported that they experienced difficulties related to term evaluation and the difficulties are inadequate evaluation strategies, difficulty in grading and difficulty in recording.
- There is a general difficulty in the unit associated with Algebra (text book of standard 7: unit 3,) There should be simple learning activities which use examples from real life and relation between numbers to overcome the learner's inability to present common principles in algebraic forms.
- Over-crowded classrooms, time is not sufficient, overloaded content, need more training for further clarification of the concepts and methodologies and all promotion system are the major practical difficulties mentioned by the teachers.
- Most of the teachers found difficulty in carrying out evaluation and recording of socio-emotional areas like empathy, problem solving skill, creative thinking, critical thinking and coping with stress under socio–emotional areas.

Adequacy of resources in the textbook: Mathematics

- Mathematics teacher found difficulty in the comprehending the content of the textbook.

- Children find difficulty in analyzing and solving problems by himself/herself using the Mathematics text book.

Answer script analysis: Error Analysis

- The learners have not understood the features of parallelogram and the measure of angles.
- Learners have no understanding about the area of a right angled triangle. The question was not at par with the expected learning outcome of the student. Such an activity has not been referred to either in the text book or the teacher text.
- Learners were not able to explain the number property in the algebraic method or compare the number property in order to reach general conclusions and could not analyze the question and reach its conclusion.
- Learners failed in expressing numbers as the product of powers of its prime factors. They were not able to analyse the question and reach conclusions.
- Learners failed to express the number property in algebraic form. The majority could not find out the relations and present them in algebraic method.
- Learners were not able to identify and express the peculiarities of the angles formed while lines intersect parallel lines and they could not understand about the total of angle measures in a triangle.
- It is significant to note that learners have not identified the features of a parallelogram.
- Learners find difficulty in the method of presentation of the unit named numbers in class VII

Textbook Analysis: Mathematics

- Even though some of the lessons do justice to constructivist approach, some of them related to repeated multiplication, algebra, square and square root stoop to the level of mere statements. At the same time, lessons 3, 11 and 12 can be inferred only by learners who have higher order thinking skills. Lessons related to algebra couldn't do justice to constructivist approach completely.
- More activities are needed in lessons like Parallel lines, square and square root in unit -2.
- The lessons which require more explanation in some of the topics like Parallel lines, Repeated multiplication, Square and square root, Ratio and Money math, etc.

- There is a general difficulty in the unit associated with Algebra (unit 3, 11) in 7th standard Mathematics. There should be simple learning activities, which uses examples from real life and relation between numbers to overcome the learners' inability to present common principles in algebraic forms.

Suggestions

Provide clarity about the features of learning outcome such as process oriented learning outcomes and outcomes which can be developed through collaborative learning.

The teachers who opined that the learning outcomes are not arranged in such a way as to ensure the continuity and development of it from lower to higher classes suggested to Ensure spiralling of learning outcome and The text book of classes from 1-7 should be prepared by the same group of teachers to ensure spiralling.

Provide more equipment, Provide financial aid and more facilities and Provide subject related CD's and training for making use of the facilities of the lab effectively.

Teachers opined that they provide more reference books, Contemporary literary books, modern facilities, financial aid for improving library facilities and Separates room for library for efficient use of library. Consider aided schools also for the financial aid from the part of the govt., SSA, RMSA.

Provide computers for both UP and HS, separate smart classroom as well as ICT enabled classrooms, Equip teachers with adequate ICT training and Provide with subject related CD's to make the teaching learning process ICT enables.

Majority of teachers suggested for appointing specialized teachers for art, Provide support from LSG and Conduct training programs to equip them to handle art classes for the improvement in the area of art education.

The teachers suggested appointing physical education teachers, providing the service of health worker in school and giving training to teachers to handle health education classes in schools.

Teachers opined that by appointing specialized teacher in work experience and by providing financial aid to schools to buy raw materials to overcome the limitation of Work Experience education in the schools.

Suggestions given by teachers for effective conduct of evaluation related to arts and sports are appointing art and sports teachers, Evaluation criteria and TE should be given together, Include more activities in HB and TB, Give specific activities, Need special courses, Give cluster training, Provide separate periods, Make TT available, Each child should get the service of physical education teachers, Make suitable infrastructures and Provide awareness regarding PT and evaluation.

The life skills and attitudes to be attained by the learners are to be fixed earlier and required materials should be provided, more life-oriented activities should be included for nurturing the life skills.

The suggestions given by the teachers to overcome the constraints of the Learning of the differently abled learners are:

- More activities and separate time should be included
- More facilities should be provided for identifying the problems.
- Special schools are essential for the instruction of the differently abled.
- The content of the text book should be adapted.
- Expert teachers in handling the differently abled should be appointed.
- Special training for handling the differently abled should be provided.
- More simple and attractive activities should be provided.
- Text book matching the mental state of these learners should be provided.

CE should be recorded in a term-wise manner and Work sheets should be provided for CE to make the CE effective.

Remedial measures suggested by Mathematics Teachers for tackling the difficulties in enriching the abilities of gifted learners are:-

- Include more activities for the gifted learners
- Provide workbooks in the BRC level
- Include special activities suitable for the gifted in the lessons
- Minimize non-teaching works of the teachers

Suggestions put forward by teachers for improvement regarding the areas of continuous evaluation strategies are need of more planning, providing suitable worksheet for lessons and need of more clarity in recording.

Teachers need more training regarding the components of continuous evaluation such as Process evaluation, Portfolio, Unit evaluation, Grading and Recording.

Instructions that enable the teachers to design activities for different levels of learners may be included in Text book.

Suggestions for the improvement of Mathematics Textbook

- More practical problems should be given for laws of divisibility and repeated multiplication in unit-4.
- In certain part of the chapters of algebra, Repeated Multiplication, etc., can be made process oriented through innovative and accurate planning.
- Using more than one simple example the learners can be given instructions to arrive at a general principle, especially when they experience difficult situations. The presentation of activities in the lesson” laws of Exponents” is to make child friendly.
- As a method of continuous evaluation, each unit are to be provided with work sheets suitable for learners of different levels.
- The learning activities in algebra are to be arranged in a simple and spiraling manner, to make beneficial to both the learner and the teacher.
- Activities or hints suitable for the differently abled children are to be given in the TB and TT.
- As the base tool in the learning process of the learner, the layout of the text book carries due importance. The layout of the 7th standard TB has not up to mark even though pictures and cartoons are there
- ICT possibilities should be in separate boxes that can be (easily) noticed.
- T.T enables the teacher to transact the learning outcomes. The facts related to the lessons but not included in the TB are to be included in the teacher Text.
- More practical problems and worksheets connected with learning outcomes of each units should be included in the TT.
- Some of the detailed explanation given in the TB should be shifted to the TT and the pages Avoid too much of explanation in the TB but include in TT. By doing this the complaint regarded over loaded content can be avoided to an extent.

Conclusion

From the findings it can be concluded that the teachers participating in this study were generally in favour of the new curriculum. According to the teachers the structure and organization of the new curriculum at Primary level shows that they find the goals of the curriculum appropriate for primary education. The curriculum content was selected and organized appropriately to the level of learners: they agreed that the suggested experiments, field trips, observations, projects and instructional materials in the curriculum were adequate and appropriate to a great extent. The teachers reported that the suggested teaching and learning activities in the curriculum helped them during teaching -learning process. Textbooks are prepared in tune with the curriculum, but to be revised timely. The study revealed that students' active participation and interest in the subject matter has increased with the new curriculum. The curriculum content has a good sequence and that the subject matter is related to real life issues. However, it is found that subject matter is too detailed that orient students to rote learning especially in Social Science. They also think that the time allocated for the loaded curriculum content is not enough to carry out intended curriculum tasks. Although the teachers seemed to approve the major aspects of the new curriculum in general, there were some differences in the ways of transaction due to certain constraints like lack of time, overloaded content and lack of facilities. Although certain teachers seemed to use instructional technology, field trips and observations more often, it was observed that these teaching methods and techniques were rarely or never used during instruction in general. Although the instructional materials used by these teachers show variety (written materials, examples and models, diagrams and graphs, living things,), the findings of this study show that written materials and text book were the most commonly used instructional materials in classes. Even though there is provision for the use of ICT materials in learning process, majority of teachers are not using ICT facilities. Since the physical structure and facilities of the schools emerged as one of the major factors constraining the implementation process of the new primary curriculum, the first focus is to be given to facilities, resources & materials and existing and emerging technologies. In order to use inquiry-based practices, teachers should be supported with rich and satisfactory facilities and resources. However, the results of this study show that teachers working in different schools do not have access to the same satisfactory conditions to use the desired implementation tasks in their classrooms. Situation is far

from ideal in many schools trying to implement the new curriculum in the way it is intended.

It is seen that the findings of this study can be used to help curriculum developers in planning strategies for improving the present Primary school curriculum. Findings were varied in relation to parents' involvement in supporting the implementation of the curriculum and in their active participation in school. It was found that effective consultation and parental involvement to enhance their children's learning is being encouraged. Textbooks exert a dominant influence on teaching and learning in a significant number of classrooms. Also the teacher text is suitable for transaction of all units. There was an overdependence on text book and workbook activities, which often resulted in pupils engaging in unchallenging and repetitive tasks. There was little emphasis on the development of higher-order thinking skills, on nurturing pupils' creativity, or on encouraging pupils to respond emotionally and imaginatively. The findings suggest strongly that teachers require additional supports to broaden their teaching strategies and approaches and to further focus on the process approach. There is a need for additional guidance for schools on how to adapt the curriculum to meet the diverse needs of learners. It is serious to consider the instruction and evaluation of Arts, Physical and Health Education and Work experience. Serious improvement is needed in these areas. Most schools had not developed whole-school plans for assessment. Monitoring is made by AEOs, but needs effective feedback and follow up. Although the teachers moderately or fully approved many characteristics of the new curriculum at primary level, they pointed to make necessary changes for the language and subject curriculum.

The learners of seventh standard are not able to express their own observations and opinions effectively and lack skill in using good language and presenting things in good style. They have less exposure to reading and gaining experience out of it. Majority learners maintain an average level in the skills for observation and formulation of inference. Answer sheet analysis revealed that this may be due to the constraints in following constructivist approach in the classroom.. The study highlighted the need for simplified and reorganized curriculum and providing all facilities to schools for adopting the constructivist approach by all means and also for catering the needs of CWSN. Working together and sharing ideas and experiences help teachers implement the curriculum more successfully.