Chapter - 4

Data Analysis and Interpretation

CHAPTER 4

DATA ANALYSIS AND INTERPRETATION

4.0 Introduction

The Data was collected for the three objectives and then content analysis was done for each objective. First objective had eight aspects andeach aspect had various sub aspects also. For each aspect of the first, second and third objective the data which was content analysed was further categorised to draw the findings from them. The frequency count for the number of responses in each category was done and then it was converted into percentage. For collecting the data for different data sources for different aspects of the three objectives the data sources like Teacher Questionnaire, Principal Questionnaire, Semi-structured interview for Students, Semi-structured interview for Parents, Observation Diary to note down the teaching learning process, Life skills, attitude and value tool, Formative Assessment question papers, Lesson Plan and the rubric analysis, Performa of Anecdotal record, Discussion with the teachers conducting Co-curricular activities was conducted. The collected data after categorising and converting into percentage based on frequency count was triangulated to cross validate the responses given by one data source with the other. The analysed data from one source which could not be cross validated from the the data of the other concerned data source was not considered as the valid finding for the study.

The objectives of the study were as follows.

1. To studythe process ofCCEwith respect tofollowingaspects

a. Development of cognitiveskills, psychomotor andaffectiveskills in thestudents.
b. Enhancement ofvalues, attitudesandlifeskills as describedinthe aspects ofCCE
c. Use of learner centeredactivities in the teaching learning process
d. Feedback provided for the written and performance based formative tasks
e. Diagnosis and remediation of learning difficulties for improving student's achievement
f. Modifications in the teaching learning strategies; learning environment

provided to the learners, based on the type of learners

g. Orientation and Feedbackgiven to the parents
h. Provisions for participation in co-curricular activities and the assessment of those activities

2. To study the opinion of teachers, parents, students and principals regarding the implementation of CCE

3. To study the challenges faced by the teachers, parents and principal and students with regard to CCE implementation

4.1 Analysis& Interpretation of Development of Cognitive, Psychomotor& Affective skills

Development of Cognitiveskills

To find out the development of cognitive skills the aspects considered were weightage given to the different levels of the questions namely knowledge level, understanding level, application level, analysis level, synthesis level and evaluation level for four subjects Mathematics, Science, English and Social Science; opportunities given for cognitive development in terms of the formative assessment (FA) activities and their assessment; learner centered activities conducted in the class except the FA activities for conceptual understanding of the students such that cognitive skills were enhanced . The data sources for collecting this data were: student questionnaire, teacher questionnaire, principal questionnaire, formative assessment question papers and classroom observations.

Cognitive skill were developed when opportunities were given to exhibit the skills in formative assessment activities and also when they were assessed some activity based learning experiences were conducted for teaching the concepts and not for assessment

Weightage given to different levels of the questions in the formative test papers

Analysis for Science subject

Total 13 out of 18 Science teachers (72.22percent) said that there was no specification of marks allotted for the formative pen paper tests, it has to be given as per the teachers wish. Two teachers(11.11percent) gave weightage 50percent weightage was given to

application level questions and 25percent each to understanding level and knowledge level questions. While one teacher(5.55percent) said that 30percentweightage was given to understanding level questions and 20percent for knowledge level questions and 20percent for the application level questions. While two teachers (11.11percent) said that they gave marks as per the blueprint made by the school and the weightage given by the CBSE.

Table 4.1 : Weightage given to different levels of questions (Science teacher responses)

Number of teacher response	Weightage given to questions of different levels		
	Knowledge Level	Understanding level	Application level
Two teacher	25percent	25percent	50percent
One	20percent	30percent	20percent

Total 15 Science pen paper tests used for formative assessment from different schools were analyzed to see the weightage given for the different levels of questions. Out of 15 Science test papers six papers (percent) had questions related higher order thinking skills like analysis synthesis and evaluation. Out of the six papers(40 percent) the weightage given to analysis and synthesis weightage given was between 10 to 30 percent of total marks. However there was no evaluation level of questions asked. Eight papers out of 15 (53.33 percent) had 60percent to 80percent marks given to knowledge level and understanding level questions and 10percent to 30 percent weightage to application level questions. Only one paper (6.66 percent) had 100 percent marks assigned to application level of questions.

Table 4.2 Weightage given to different levels of Questions(Science FA test papers)

Number of question papers	Weightage allotted to different levels of questions			
	HOTS	Knowledge level	Understanding level	Application level
Six	10 to 30 percent	20 to 30 percent	15 to 20 percent	15 to 20 percent
Eight		60 to 80 percent	10 percent	30 percent
One				100 percent

The above analysis of the 18 Science teacher responses and the 15 Science test paper analysis shows that16.66 percent teacher responses gave different weightage to different levels of questions like 50% weightage for application level questions or 20 % weightage to application level questions, but question paper analysis show 10% to 30% weightage given to application level questions, while the 53.33 percent question papers analyzed show 60% to 80% marks given to knowledge level and understanding level questions and 10% to 30 % weightage to application level questions. So there was no consensus between the weightage given to different levels of questions in the Science formative tests.

Total 40 percent question papers analyzed have 10 to 30 percent weightage for HOTs but none of the 16.66 percent Science teachers have mentioned about HOTs.

While 72.22 percent Science teachers said that there was no fixed weightage for different levels of questions in formative tests.

Analysis for Mathematics subject

Ten out of 16 Mathematics teachers (62.5 percent) did not give any response for the weightage given to different levels of questions in the formative assessment question paper. Six out of 16(37.5 percent) said that there was some specific weightage to different levels of question but the specifications was not given.

Table 4.3 :Weightage given to different levels of questions (Mathematics teacher responses)

Number of teacher response	Weightage given to questions of different levels		
	Knowledge level	Understanding level	Application level
Three	25percent	25percent	50percent
One	20percent	50percent	30percent
Two	40percent	30percent	30percent

Total 3 teachers(18.75percent) said that 50percent weightage was given to application and 25percent each was given to understanding level and knowledge level question one teacher(6.25percent) said that 20percent weightage was given to knowledge level, 50percent to understanding level and 30percent was given to application level question while the remaining two teachers(12.5percent) said that 40percent weightage was given to knowledge level and 30percent each was given to understanding and application level questions.

Total 11 pen paper tests given for formative assessment from different schools were analyzed to find out the questions given for various questions related to different levels .

Table 4.4 Weightage given to different levels of questions(Mathematics FA test papers)

Number of question papers	Weightage allotted to different levels of questions			
	HOTS	Knowledge level	Understanding level	Application level
Six	10 to 40 percent	7 to 18 percent	7 to 18 percent	7 to 18 percent
Four		40 to 50 percent	40 to 50 percent	
One				100 percent

Six out of 11 papers (54.54percent) had questions related to higher order thinking like analysis and synthesis . In those six papers the weightage given analysis and synthesis type of questions was about 10 percent to 40percent .and the major questions were related to knowledge and understanding , application level questions were given weightage of about 7percent to 18percent. However the remaining five papers out of 11 papers did not have any analysis, synthesis or evaluation level questions. Only one paper out of the five had all the questions related to application level. And the remaining four papers had knowledge and understanding level of questions ranging from 40percent to 50percent weightage.

The above analysis of the 11 Mathematics FA test papers and 16 Mathematics teacher responses show that the varied weightage given by the six Mathematics teachers (37.5percent) to the different levels of questions i.e. 50percent weightage to application; 25percent to understanding level and knowledge level question or 20percent weightage to knowledge level, 50percent to understanding level and 30percent to application level question or 40percent weightage to knowledge level and 30percent each to understanding and application level questions. While 45.45 percent Mathematics paper had understanding level, knowledge level and application level questions of equal weightage. So there was no consensus between the weightage given to different level of questions in the Mathematics Question papers and the responses given bythe Mathematics teachers.

Total 54.54 percent papers Mathematics formative assessment papers analyzed show the presence of 10 to 40 percent HOTS question, 7 to 18 percent knowledge level,7 to 18 percent understanding level and 7 to 18 percent application level questions. While none of the 37.5 percent Mathematics teachers mentioned about the HOTs questions.

62.5 percent Mathematics teachers gave no response about weightage given to different levels of questions in the formative test papers.

Analysis for English subject

There were total 12 English teachers, seven teachers out of 12 (58.33 percent) did not respond about the weightage given to different levels of questions in the formative assessment questions.

Table 4.5:Weightage given to different levels of questions (English teacher responses)

Number of teacher response	Weight age given to questions of different levels		
	Knowledge level	Understanding level	Application level
One	25percent	25percent	50percent
One	50percent	25percent	25percent
Two teachers	Equal weightage for all three levels		

Two teachers(16.66 percent) said that equal weightage was given , one teacher(8.33percent) said that 50 percent weightage was given to application level and 25percent each to knowledge level and understanding level questions while one teacher(8.33percent) said that 50 percent weightage was given to knowledge level questions and 25percent each to understanding and application level questions. However this was endorsed by the response of only one teacher out of 12 teachers(8.33 percent) that there was no fixed weightage for different levels of questions for formative assessment papers.

There were six formative assessment tests which were gathered from the teachers, while six teachers denied giving the test papers,

Table 4.6 Weightage given to different levels of questions(English FA test papers)

Number of question papers	Weightage allotted to different levels of questions				
	HOTS-Analysis	HOTS-synthesis	Knowledge level	Understanding level	Application level
Six	10 to 40 percent	10 to 40 percent	10 percent	10 percent	

All the six papers which were received had analysis and synthesis level questions the weightage varied from 10percent to 40 percent, and remaining questions were related to knowledge and understanding level.

The above analysis of 12 English teacher responses and six English formative test papers show that 33.33percent English teachers gave different weightage to different

levels of questions i.e. 50 percent weightage to application level, 25percent each to knowledge level and understanding level questions or 50 percent weightage to knowledge level question, 25percent each to understanding and application level questions or equal weightage to all three type of questions. While the all the six English question paper analysis had analysis and synthesis level questions the weightage varied from 10percent to 40 percent, and remaining questions were related to knowledge and understanding level.

However 8.33 percent teacher said that there was no fixed weightage for different levels of questions for formative assessment papers. 64.28percent principals said that the weightage was purely based on the teachers' wish and was not fixed by the school.

Analysis for Social Science subject

There were 16 Social Science teachers, 12 teachers out of 16 (75 percent) did not give any weightage given to different levels of questions.

Table 4.7 :Weightage given to different levels of questions (S. S. teacher responses)

Number of teacher response	Weightage given to questions of different levels		
	Knowledge level	Understanding level	Application level
Two	40percent	30percent	30percent
One	50percent	25percent	25percent
One teacher	Equal weightage for all three levels		

Two teachers said that they gave 30percent weightage each to understanding and application level questions and 40percent weightage to knowledge level questions while one teacher said they gave equal weightage to all the levels of questions and one teacher said that 50percent weightage were given to application level questions and 25percent weightage was given each to knowledge and understanding level questions.

A total of 9 formative assessment pen paper test papers were analyzed for finding out the questions asked at different levels of objectives.

Table 4.8 Weightage given to different levels of questions(S.S. FA test papers)

Number of question papers	Weightage allotted to different levels of questions				
	HOTS-Analysis	HOTS-synthesis	Knowledge level	Understanding level	Application level
Three	15percent	15percent	40 percent	30 percent	
Two			79 percent	15 percent	6 percent
Four			50 percent	50 percent	

Out of nine papers only three papers had questions related to analysis and synthesis level and the weightage to the questions were 15percent only , while only two papers had questions related to application level and understanding having 6percent and 15percent respectively. The remaining four papers had all the questions related to knowledge and understanding level.

The above analysis 16 Social Science teachers responses and nine formative questions papers of Social Science reveals that12.5 percent Social Science teachers gave equal weightage to understanding and application level questions i.e. 30 percent and 40 percent and remaining to knowledge level questions, while only in 22.22 percent Social Science questions paper the application level question was seen and the weightage allotted was 6percent only. So there was no consensus between the teacher responses and questions paper analysis for the weightage given to different levels of questions.

12.5 percent Social Science teachers said that equal weightage was given to either application level questions and understanding level questions or knowledge, understanding and application level questions. While 44.44 percent Social Science question papers had 50 percent knowledge level and 50 percent understanding level questions, but no questions of application level.

While 33.33 percent Social Science question papers analysed show that 15 percent analysis type of questions were asked, 15percent synthesis type of questions were asked,40 percent knowledge level and 30 percent understanding level questions were

asked; but none of the teacher responses revealed the weightage given to HOTs or analysis type of questions.

Formative Activities for Cognitive skills development and their assessment

Formative Assessment Activities were considered here as the opportunities for developing the cognitive skills and assement criteria of those activities were analysed to check the mindset of the teachers towards enhancing the cognitive skills. The data sources used were students responses in the interview, teacher responses from the questionnaire and classroom observations.

1.2.1Opportunities given for cognitive skillsdevelopment by Science Teachers

There were 65 students who were interviewed personally, but each student had given more than one response, because in one formative assessment they had more than one activity. Since the aim of this objective was just to find out what type of activities were given student wise responses has not been analyzed, total number of responses of all the students have been segregated as the group activities and the individual activities and the type of activities have been described. Total there were 136 responses. Out of which only four responses(2.94percent) said that there was nothing given for formative assessment, 20 responses(14.70percent) revealed that the students don't remember what was given for the formative assessment.

Table 4.9. Type of FA activities given in Science (Teacher and Student responses)

Name of the activities Individual	No.of student responses	Number of teacher responses	Name of group activities	Number of student responses	Number of teacher responses
Assignments	2	3	Seminars	3	5
Small experiments (sowing a seed and taking care of it for germination)	2		preparing a write up about the symptoms, preventions and remedy of malaria	1	5
Lab activities	17	11	crossword making	4	
Class test	7		chart making	5	
Written lab manual	6		making eco-friendly working mode	2	
Chart making	4		making working model	7	
Individual model making	1		making still model	2	9
Quiz	2	9	Investigative research		5
statistical analysis based on the survey	1		Presentation using IT		5
explaining the summary of a chapter	1				
complete diagram based worksheet	4				
Posters	2				
power point presentation	8	5			
notebook completion	2				
Worksheets	12				

The individual activities related to Science: total 10 student responses(7.3percent) revealed that assignments were given, two responses (1.47percent)revealed that students had to sow a seed and take care of it till it was germinated, seven responses revealed that the students(5.14percent) were evaluated based on the class test, 17

responses(12.5percent) revealed that students were graded on the lab activities performed by the students, six responses(4.41percent) revealed that the students were graded only based on their lab manual not on the lab performance by them; four responses(2.94percent) revealed that the students had to make charts; individual model making was showed only in one response(0.007percent); 2 responses (1.47percent)reveal that the students had Science quiz; 12 responses (8.82percent)reveal that the students were given worksheets; two responses(1.47percent) show that the formative assessment was done based on the notebook completion; 8 responses(5.88percent) reveal that the students were given power point presentation by searching the matter on a topic from internet and put in power point; two responses(1.47percent) revealed that the students had to make posters ; four responses(2.94percent) show that the students had top complete diagram based worksheet; explaining the summary of a chapter was given by one student(0.007percent); one responses(0.007percent) also revealed that they were given the statistical analysis based on the survey they did.

The group activities that were given for the formative assessment of the students were: giving seminars(2.20percent); preparing a write up about the symptoms, preventions and remedy of malaria(0.007percent); crossword making in group(2.94percent); chart making in group(3.67percent), making eco-friendly working model(1.47percent); making working model 5.14percent and making still model (2.94percent).

If the total number of teacher responses was considered, it was 43. Out of that only 3/43(6.97percent) responses revealed that the teacher had given individual activities like Brochure making chart making and assignment. None of the teachers said that they had considered completion of notebooks, class test, worksheets and assignments for formative assessment.

Total 10 teachers out of 43(23.25 percent) said that they gave group work to the students for formatives, nine teachers(20.93percent) said the students conducted the quiz and model making. Five (11.62percent) group research investigative research, peer assignment presentation using IT seminar symposium similarly. If the total number of the teacher responses were considered then it was 43 and if the above responses of teachers for group activities was considered then it was 23/43(53.48 percent) which was

a considerable number.Total 11/ 43 responses teachers (25.58percent) had given the students to plan and execute the experiments.

The above analysis shows that 25.58percent teachers responses had given the students to plan and execute the experiments and assessed the students based on the performance of the experiments. While 21.32percent student responses revealed that they were assessed based on the lab activities and the observation and conclusion were just written in the lab book. 12.5percent students responses reveal that theywere assessed on the performance of lab activities. Since the number of students responses saying that they were assessed on the performance of the experiments was half than that of the teachers saying that they assessed the students formatively using lab performance so it can be said that out of 25.58 percent teachers half of them assessed the students on the performance in the lab and remaining half assessed the written lab manuals.

It can also be interpreted that though the lab activities were to be conducted or demonstrated in class IX, only 25.58percent teachers used it for formative assessment.

From the above analysis it appears that 25.58 percent teachers gave the students opportunity to perform experiments in the lab and only 12.25 percent students responses reveal that they were allowed to perform the lab activities and they were assessed on the their performance these students belonged to 3.75 percent schools in which this study was conducted.

Total 55.81percent teacher response and 17.64 percent student response revealed that group activities like chart making, crossword making, malaria, still model, working model.

The above analysis of scicence teacher responses and students response on the formative activities given in group show that many formative group activities were done by the students but consensus was drawn only on activities like make models, presentation in seminars and investigative research like searching details about malaria as responded by 55.81 percent teachers and 17.64 percent students.

Considering the analysis of Science teacher responses and students responses on individual activity formative activity given in Science, it can be seen that total 6.97 percent Science teacher responses revealed individual activities like Brochure making chart making and assignment and total 11.79 percent student responses revealed chart

making Science quiz, PowerPoint presentation and posters making were given as formative activities in Science.

So there was a consensus on the chart making in Science as an individual formative activity given to students as responded by 6.97 percent Science teacher and 11.29 students

None of the teacher said that they had considered completion of notebooks, class test, worksheets and assignments for formative assessment , but the 22.05percent student responses also revealed that worksheets and notebooks were also considered as the formative assessment activities.

Evaluation of Science FA Activities

10 teachers out of 18 (55.55percent) did not give any response about the criteria used for evaluation. This shows that they might have either not evaluated based on some criteria or they don't want to reveal the criteria of assessment.

The following were the criteria of assessment used for assessment of the different activities by the teachers. Only 8 teachers (44.44 percent) gave the criteria of assessment.

R1: group research: understanding exhibited during the presentation of the research and the content searched by the students.

R2: group research- innovation, presentation, research, confidence, use of IT, language proficiency and experimentation.

R3: model making-- hard work , involvement , innovation, presentation, sincerity

R4: model making Clarity of the model—self explanatory, overall how it was used for their learning ---relevancy to their grade level

R5: Investigative project--- Content, presentation, regularity

R6: Brochure making-- concept clarity(3marks),presentation(3marks) and team work (2 marks)

R7: chart making and assignment-- content, understanding of the topic, originality of the ideas.

make presentation-- presentation, content, timely submission

R8: model making--- content, presentation and timely completion

R8: experiments-- Practical, observation of attitudes knowledge behaviour, skills , goals

It can be observed from the above responses that, though these were assessment of Science related activities most common criteria used was presentation (75percent) which was part of communication skills, but cognitive skill like scientific skills, accuracy and logical thinking has not been indicated much. Another major criteria was content (50percent) used by majority of the teachers which means they have given weightage to the content clarity the child was having in the content being represented in the model, assignment or projects, this indeed was a criteria that would help in assessing the cognitive skill.

The other criteria like innovation, originality of ideas (37.5 percent) were also being used by few teachers indicating that only few teachers expect the students to think critically and creatively and bring some new ideas.

Timely submission was a criteria of evaluation for three activities (37.5percent) and one activity was assessed (12.5 percent) on hard work, involvement and sincerity which were hardly the cognitive skill, rather some other cognitive skills should have been assessed.

six teachers out of 18(33.33percent) have not mentioned the criteria of assessment which shows their disinterest on assessment of cognitive skills.

The above analysis of assessment criteria used by different teachers for assessing the formative activities show thatthough CCE focuses on evaluation of scientific skills like thinking skills, creative and critical thinking skills through the Science related activities but 75percent of the teachers responses reveal the use of values like sincerity, hard work, regularity and punctuality and use of language/ communication related components of assessment for Science activities like presentation, confidence and language proficiency. While only 25percent teachers used creative thinking and critical thinking components like innovation and originality of ideas.

1.2.2. Opportunities given for cognitive skillsdevelopment by Mathematics teachers

Total 65 student responses were taken regarding the type of activities; but 45 students responded to, remaining 20 did not remember the activities given for formative assessment. Each student gave more than one response so there were total 142 responses.

The individual activities enlisted for mathematics by the students were class test (2/142) (1.40percent); relating axioms with real life situations(1/65)0.007percent; notebook completion(1/65)0.007percent; worksheet(9/65)6.3percent; graph plotting(4/65)2.8percent; MCQ test(2/65)1.40percent; chart making(10/65) 7.04percent; power point making(12/65)8.45percent; statistical surveying(3/65) 2.11percent; proving a theorem (1/65)0.007percent; activities given in the activity book(17/65) 11.97percent.

While the student responses highlight few group activities like : quiz making and conducting(2/65) 1.40percent; finding the linear equations using graphs(3/65) 2.11percent; making a square root spiral chart(2/65)1.40percent; crossword making (13/65) 9.15percent; making different shapes from the material available and finding its perimeter (1/65)0.007percent; chart making (6/65)4.22percent; integrated project (1/65)0.007percent; making a clinometers or a senometer in group (4/65)2.8percent; finding heron's formula through an activity(3/65) 2.11percent and formation of ogive curve by taking some dimensions (2/65) 1.40percent.

However activities given in the activity book(11.97percent) requires critical thinking to actually derive the identity or the theorem from the activities given, but since it was self guided activity book the teachers has to take least effort in doing this and may be if the students just follow blindly the instructions given for each step in the activity book they will be easily completing it even if they don't understand it, so it depends on the teacher the students were made to imagine and visualize the formation for the identities or proving of the theorem while the students were doing the activity.

There were 16 Mathematics teachers who responded to the teachers questionnaire. Each teacher gave more than one response to the type of activities given for cognitive skill development, hence the total responses were 44. Total 10 teachers' responses (22.72percent) revealed that they used problem solving method most of the times and 2 responses(4.5percent) said that problem solving was done in groups. One response showed (2.2percent) that analysis using statistics was given to the students in the class. Mental Mathematics was taught by one of the teachers (2.2percent) to make calculations easy for all the mathematical calculations. Three responses revealed (6.81percent) that investigative project was given. One teacher (2.2percent) said that investigative project was done for proving the midpoint theorem. Two responses showed (4.5percent) that

crossword making and solving was given to the students, chart making was given by 3 teachers' response (6.81percent). Total of 14 teacher responses revealed data handling in the chapter related to statistics; 5 teacher responses(11.36percent) showed that model making on some mathematical concept; two teacher responses(4.5percent) showed they asked them to make working model to show that the volume of the cylinder and cone changes as the angle subtended changes. Presentations using IT were given by four teachers responses(9.09percent); 13 teachers' responses(29.54percent) revealed that the lab activities were conducted as givne in the activity book; presentation without IT was given by seven teachers responses(15.90percent) and two teachers responses (4.5percent) showed they gave research projects but the details about the topics were missing.

Total 11 mathematics classroom teaching were observed. All the teachers used the problem solving method. In five classes (45.45 percent) activities of the activity book being done, the teachers focused on how well the students were folding the paper and simultaneously explained the concept by drawing on the board also. In six classes(54.54 percent) the teachers gave the extra sums also for improving problem solving but hardly gave any time for the students to read and reflect, they directly started explain hence the problem solving ability was hardly enhanced.

The above analysis shows that10.56 percent student responses have described the the individual formative activities in Mathematics as worksheets, graph plotting, relating axioms to real life and proving theorem; while 22.72percent teachers' responses revealed that they gave assignments related to problem solving like worksheets, graph plotting & proving theorem.

Whereas (54.54percent) 6 classroom observations out of 11 Mathematics classroom observations reveal that extra sums for improving problem solving skills were given to students but students hardly were given time to read and reflect and understand the problems or to solve the problems. As soon as the problem was given the teacher directly started explaining hence 54.54 percent teachers didn't give any opportunity to enhance the cognitive skill even through classroom activities like problem solving.

Total 15.49 percent student responses confirm that activities like Individual activities chart making,power point making using IT were given as individual activities. Total 24.99 percent teachers confirmed that individual activities were given for formative

assessment like chart making , presentation without use of IT; power point making which was using IT. So it can be said that individual activities like power point making and chart making was given as individual formative activity as per the response of 15.49 percent students and 24.99 percent teachers.

The analysis of students and teacher responses on the group activities given in Mathematics reveal that 15.46 percent student responses showed that crossword making, making a square root spiral, finding linear equations using graphs; making of clinometer and senometer were the group activities given to them. Total 29.54percent teachers' responses revealed that the lab activities were conducted as given in the activity book. Most of the group activities mentioned by the students show that finding linear equation using graph, squareroot spiral were the activites given in the mathematics activity book. So it confirms that lab activities given in the activity book were conducted by 29.54percent teachers.

Evaluation of Mathematics FA Activities

Remaining 12 teachers, 5 teacher gave the same criteria for all the activities like

R1: criteria for activities: logical reasoning, figure, method and presentation.

R2: understanding of the concepts, neatness, accuracy, communication if it was a presentation, problem solving method and application of concepts to real life situation

R3: Evaluation of the activities: activity on conduct page: correctness(2marks), neatness(1 mark), observation(2 marks) and conclusion (2 marks), justification(2 marks) and team work(1mark).

R 4: Criteria of assessment: concept clarity, correctness of the answer

R5: Scientific and mathematical skills exhibited

Out of 16 five teachers(31.25percent) said gave the same criteria for assessing the all the activities given for formative assessment , from this it can be understood the aim of the teacher was to just assess different activities and make evidences. They rarely bothered what cognitive skills were enhanced in different activities.

Only seven teachers out of 16(43.75 percent) gave activity specific assessment criteria for different activities, this shows that they identified that different abilities were to be assessed for different type of activities. It can also be seen that along with mathematical

skills like accuracy problem solving, presentation etc , the teachers also observed the time management skills, team spirit and co-ordination.

R 1: research topic: content, relevance, originality, presentation and timely submission.

R2: integrative project: clarity of the content, presentation, viva, calculations accuracy and imagination. They made a field model

R3:Mathematics laboratory activities: of assessment: concept clarity, correctness of the answer.

R4: Statistic project was assessed based on the following parameters: originality, presentation/neatness, abstract, description and justification.

R5:evaluating problem solving: accuracy. For evaluating Mathematics lab activity: accuracy, time management,

R6: Lab activity: aim, procedure, activity performed, observations written and conclusion drawn

R6: Research project: content, presentation, team spirit.

R7: Powerpoint of surface area and volume of cube, cuboid, cone ,cylinder, sphere and hemisphere- criteria of assessment: presentation(3marks), content(3marks),technical co-coordinator (3marks) and team co-ordination(2marks).

The above analysis of the assessment criteria for mathematics formative activity show that criteria given by the five teachers who gave common criteria for all the individual activities only 31.25percent teachers have used logical reasoning / justification / correctness as the evaluation criteria which can be considered as the cognitive skill related to Mathematics. The assessment criteria given by 43.75 percent Mathematics teachers, who gave different criteria for different activities it can be seen criteria like understanding of content, accuracy, imagination and observation like cognitive skills were assessed.

1.2.3. Opportunities given for cognitive skillsdevelopment by English teachers

Out of 12 teachers, only 10 teachers (83.33percent) gave the name of activities offered to develop various abilities of the students. Since one teacher gave more than one response there were total 124 responses.

Responses of teachers on speaking activities:Total (3.22percent) teachers response revealed that presentation using IT was given; 8.87percent responses revealed that

debates were conducted; Total 10 responses (8.06percent) revealed that speech giving was given as an activity.

Responses of teachers on Writing activities: Total five responses out of 124 (4.03percent) revealed that poetry writing was given; seven responses (5.64percent) showed that autobiography writing was given; writing articles and essay writing was given by seven (5.64percent) and six (4.83percent) responses respectively; diary writing was given to the students as revealed by 10/124 (8.06percent) teacher responses. Total nine responses(7.25percent) revealed that newspaper article writing was given to the students; nine responses(7.25percent) also revealed that report writing was given and 11 responses (8.87percent) revealed that creative writing was given to the students.

Responses of teachers on Reading activities: 4.83percent teacher responses revealed that information gathering ; while 11 responses(8.87percent) revealed that comprehension was given to the students to develop the skills like reading writing, speaking and listening.

Responses of teachers on Listening activities:Total 10 out of 124 (8.06percent) teacher responses revealed that there were listening activities as a part of ASL (Assessment for Speaking and Listening) as directed by CBSE.

However it was to be observed from the above teacher responses total 64 teacher responses out of 124 (51.61percent)responses reveal that different writing activities were given. While speaking activities were given importance after writing activities; total 33 out of 124(26.61percent) show that the speaking activities were given to the students to improve their cognitive skills. While the listening and the reading skill related activities were revealed only by few responses i.e. 10 out of 124(8.87percent) and 17 out of 124(13.70 percent) respectively. Writing and speaking increase more psychomotor abilities than the cognitive abilities. Though all the three domains involved in human learning work hand in hand; but still speaking and writing requires more of psychomotor abilities with the cognitive abilities while reading and listening involves more of cognitive abilities. Since all the four skills LSRW of language have their own importance with respect to the domains of learning they belong, all should be given equal weightage.

Student responses FA activities: Total 65 students responded to the student interview. One student had given more than one response so there were 121 responses out of which, 10 responses said that in that particular FA the students didn't remember the FA activities and seven responses said that in the particular FA no activity was given.

Student responses on Speaking activities:four out of 65 said that there was panel discussion(3.30percent);11 said that there was role play(9.09percent); one said there was group discussion (0.008percent); one(0.008percent) said that they had skit; four (3.30percent said that they had radio show where they had to make an advertisement; two (1.65percent) said that they had to enact a poem; three (2.47percent) said they had oral survey on medicinal plants ; six (4.95percent) said they had extempore; one (0.008percent) said that they had recitation of the poem; three students (2.47percent) said that they had to give an individual speech.

Student responses on Writing activities:four students' response (3.30percent) said that they made comic script in the group with some idiomatic expression; four (3.30percent) said that they had story completion activity in group; two (1.65percent) had to make crossword in pairs; one (0.008percent) said they had story writing; nine students (7.43percent) said that they had to complete the worksheets; three (2.47percent) said that they had portfolio making ; one (0.008percent) said that dialogue writing was given to us; three (2.47percent) said that travelogue writing was there; three (2.47percent) said they were given the informal letter; two (1.65percent) said they were given the email writing; one (0.008percent) said that chart making was given; one(0.008percent) said their notebooks also were corrected and marks were given; one student (0.008percent) said that the formative assessment included pen paper test only; five (4.13percent) students said that they were given story writing individually; four (3.30percent) students said that they were given autobiography writing; two (1.65percent) students said that students had to make questions and find answers from a chapter; two(1.65percent) students said that they were given chart making on sonnet; three(2.47percent) students said that they were given worksheets.

Student responses on Reading activities: three students (2.47percent) said that summarizing the chapter was there; one(0.008percent) said that they had to elaborate a newspaper article; one (0.008percent) had summarizing the newspaper article; One

student(0.008percent) said that they were given to summarize the headline of twenty days newspaper; one student said (0.008percent) they were given the book review; one (0.008percent) student said that they had to make concept map for a topic.

Student responses on Listening activities:two student responses (1.65percent) said that their listening skills were assessed

Classroom observation of English classes: Moreover out of 14 classroom observation there were four classes(28.57 percent) where the students were doing role play. So based on all this it can be finally said that role play was definitely done and dialogue writing for the role play was done as seen in the classroom observation and express in the student responses. However it can be said that there was no much alignment in the teacher responses and the student responses as far as other activities were considered.

It can be seen from the above analysis of teacher responses, student responses and the classroom observations that 8.06percent teacher response and 4.95percent student response reveal that speaking activities like extempore were given. Total 2.47percent student response and 8.06percent teacher response confirm that there were speaking and listening activities conducted for assessment of ASL (Assessment of Speaking and Listening). There were many other activities enlisted for speaking skills by the teachers and the students responses but since there was no consensus between the teacher and student responses they were not considered.

Out of all the activities listed out related to writing skills only one activity was common from the student responses and the teacher responses, four (3.30percent) student responses showed that autobiography writing was given and seven teacher responses (5.64percent) also showed the same.

While there were other writing activities mentioned by student responses like story writing

(4.13percent) ; comic script in the group with some idiomatic expression (3.30percent) ; story completion activity (3.30percent) ; complete the worksheets(7.43percent). In all these activities enlisted for writing skills by the students more number of responses was for completion for worksheet, hence it can be interpreted that worksheet writing was more prevalent than story writing script writing or story completion. Total 41.9 percent teacher response said that creative writing; report writing ; newspaper article writing;

diary writing; writing articles; essay writing were the writing activities given and since all the activities were part of syllabus of class IX, it can be ensured that they were conducted.

There was no alignment in the reading activities mentioned by students and teachers. But the 4.83percent teachershad made a mentioned of having information gathering activity and 0.008percent student responses confirm that they had concept map for a topic making and also 0.008percent students had to summarize the headline of twenty days newspaper, for which information gathering and organizing was there. Hence it can be said that making the concept map and summarizing the newspaper headlines as said by 0.016 percent students were given to the students for enhancing the reading ability. Moreover 8.87percent teacher responses revealed that reading comprehension activities were given and the 2.47percent student responses said that they were given to summarize. Since assessment of listening skills was compulsory atleast once in a year as per the CBSE guidelines, it can be said that listening activities were conducted as responded by 8.06percent teacher responses and 1.65percent student responses. So it was confirmed that listening activities were conducted for assessment purpose only since the evidences have to be sent to CBSE office.

While 9.09percent student responses and four classroom observation out of 14(28.57 percent) also showed that the role play was conducted and all the students were asked to participate.

Evaluation of English FA Activities

Out 12 English teachers two teachers (16.66percent) gave the same criteria for assessing all the formative assessment activities which were as follows

R1: timely submission, hand writing, content of the material and presentation

R2: Language and vocabulary, Presentation & coherence of ideas

The above analysis of teacher responses on the criteria of assessment of FA activities show that 16.66 percent teachers used same criteria for assessing all the activities which shows that the teachers were least interested in achieving the objectives for which each activity was planned, the assessment was done just for the sake of doing it , not for the purpose of enhancing the abilities of the students. Moreover the same criteria used by 16.66 percent teachers also have presentation, timely submission and handwriting as one

of the criteria for assessment which seems to be less important criteria compared to other language abilities which could be assessed. Moreover the criteria like handwriting, timely submission and presentation indicate that the assessment of written activities was more focused than the reading and listening and speaking activities.

Those teachers who assessed the different activities using different criteria were as follows

R. 1: For assessing poetry writing: creativity, use of poetic devices like rhyming words, assonance, figures of speech, fluency etc.

R 2. Giving speech/conversation assessment criteria : Confidence, presentation, content knowledge---Presentation using IT assessment criteria : Team work, co-ordination, content knowledge, use of IT

R 3. giving speech assessment criteria fluency, content, pronunciation, accuracy

Essay writing: content, accuracy, fluency, punctuation.

R 4. The students can enact the drama by creating their own script and present on the stage with all props. Vocabulary, pronunciation, presentation, body language, acting and Dialogue delivery

R5.Creative writing: assessment criteria: imagination, use of language(content),sentence pattern

R6.Debate on whether mobiles should be allowed in school or not. Content pronunciation, fluency, rebut shown

R7. Group work, radio show. Creativity, audibility (modulation, intonation, fluency), language, correlation with the team.

R 8. Report writing: structure of report, use of language, sentence patterns, knowledge of report

The above analysis show that eight teachers (66.66 percent) gave different criteria of assessment for different activities and also said that all the activities done were not for assessment. Hence it can be seen that ample opportunities to enhance the cognitive skills were given in the language classes. All the criteria of assessment mentioned by eight respondents seems to be appropriate as per the name of the activity, while only one activity i.e. presentation using IT could have been assessed on the criteria like

presentation in terms of vocabulary, intonation, pronunciation instead of assessing on team work and co-ordination.

1.2.4. Opportunities given for cognitive skillsdevelopment by Social Science teachers

Teacher responses on FA activities in Social Science: Only one teacher out of16 teachers (6.25 percent) said that they didn't have any formative assessment activities based on the participation of the students in the competitions we were grading them for formatives. Out of 16 teachers only 12 teachers (75percent) named the activities which were given for formative assessment and the teachers felt that it improved their cognitive abilities. Each teacher gave names of more than one activity conducted for cognitive skill development. Total responses were 69 responses were there. Eight responses (11.59percent) revealed that investigative projects were given to the students; 12 responses (17.39percent) revealed that research projects were given; 11 responses (15.94percent) showed that presentation on a topic was given; five responses (7.24percent) showed that informative projects were given. Nine teacher responses (13.04percent) revealed that model making was given; seven responses (10.14percent) explained that chart making was given; seven responses (10.14percent) revealed that comparison and contrast assignments were given; five (7.24percent) revealed that source based analysis was given; two responses (2.89percent) explained that debate was given; one response (1.4percent) revealed that integrated project was given. One response (1.4percent) each said that role play and group quiz organization was given.

Student responses on FA activities in Social Science : Total 65 students' responses were analyzed after their interview to find out the opportunities given to them during formative assessment activities. Since one student gave more than one response the total number of responses were 119. There were 29 responses(24.36percent) which revealed that the students did not remember what formative assessment activities were given. If the individual activities were considered out of 65 students, 25 students(21percent) said that they were given written assignment on various topics like reading a given a passage on farmers' suicide and answering the questions, Nazism, endangered species; writing letter to Hitler for making peace in Germany, assignment on comparing the status of Delhi in the Sheila Dixit tenure and ArvindKejriwal tenure; assignment on prevention, causes and

effects of malaria; writing about the culture of Canada and Madhya Pradesh and assignment on traditional and modern farming methods; assignment on writing the a note on akshaypatra program and writing case study on case study on Hitler. The other activities include notebook completion (0.008percent); power point making(1.68percent); written test(4.20percent); chart making was given (4.20percent); worksheets(12.60percent); map marking(14.28percent); write a report interviewing the elders on the Nepal earthquake(1.68percent); report writing on the survey of experience of 5 individuals on voting (5.04percent); interpret the pictures(4.20percent). There were other activities like skit on discrimination based on caste and campaign for election(7.56percent); quiz making and conducting (2.52percent); article writing on Hitler (2.52percent); group discussion (0.008percent); debate (4.20percent); crossword solving (0.008percent); model making on types of soil and types of land forms and Himalayan ranges(3.36percent); making a question bank(0.008percent); role play on Nazism and caste system(2.52percent); making magazine or scrape book (2.52percent); group project on searching for Hitler's rules during his leadership and his rise to power (3.36percent); arranging a talk show in the class to discuss whether society needs to empower women or not.

From the above analysis it was evident that 6.25 percent teachers didn't give FA activities but were assessing the students based on the participation of the students in the competitions showed that there were also teachers who just don't plan any formative assessment activities but based on the participation of the students in the different activities graded the students for formative activities.

Total 17.39percent teacher responses revealed that the activities like research projects on topic physical features of India and on the mission to MARS were given none of the student response revealed this kind of activity. But 21percent student responses revealed that they were given written assignment on various topics like reading a given a passage on farmers' suicide and answering the questions, Nazism, endangered species; writing letter to Hitler for making peace in Germany, assignment on comparing the status of Delhi in the Sheila Dixit tenure and ArvindKejriwal tenure; assignment on prevention, causes and effects of malaria; writing about the culture of Canada and Madhya Pradesh and assignment on traditional and modern farming methods; assignment on writing the a

note on AkshayPatra program and writing case study on Hitler. Since all these assignments mentioned by the students involved lot of searching thorough the different resources, the teachers might have considered it a research activity.

7.56percent student responses revealed that skit on discrimination based on caste and campaign for election was given as an activity and five teacher responses and 7.24percent revealed that source based analysis was given, this shows that source based analysis was given where the source was the community members.

12.60percent student responses revealed that worksheets were given as formative activity but none of the teacher responses revealed the same, may be because the teachers didn't want to reveal that formative assessments were also based on written tasks.

Map marking was also a formative activity mentioned by 14.28percent student responses but none of the teachers mentioned it as formative activity since they might have not wished to reveal that map marking which was integral part of Social Science teaching was also considered for formative assessment. Thus map marking was used for formative assessment though it was just the part of teaching learning process only.

Evaluation of Social Science FA Activities

Eight teachers out of 16 (50percent)did not mention any criteria used for assessing the activities that they enlisted, may be all the activities were assessed without any criteria for few which were assessed was also not responded.

Two teachers out of 16(12.5percent) gave common criteria of assessment for all the activities.

R 1. Relevance of content, presentation, source, timely submission, sequential arrangement.

R 2. Presentation, comprehension, way of expression (in writing and speaking both).

The above response of the 12.5 percent teachers reveal that the teachers that since they use the same type of assessment criteria for all the formative assessment , the opportunities given to the students would also be of same type, so that it was easy for them to evaluate. So it can be interpreted that 12.5percent teachers just want to evaluate the formative activities and complete their task. When formative assessment was done

for the sake of doing then how can we expect that cognitive skills will be developed properly through the Social Science subject.

Total 37.5percent i.e. six teachers responses used different criteria for assessing different activities. The following were their responses.

R 1. Assessment criteria for power point presentation: content, research, body language, designing of ppt.

R 2. Assessment criteria for presentation: presentation skills, relevance of information collected

R 3. Power point presentation: presentation, confidence level, use of images/pictures, content, creativity/innovativeness.

Group quiz: co-ordination among group members, types of questions prepared by the students in each group, creativity and innovativeness, timely submission.

R 4: Power point presentation assessment : content, presentation, accuracy and punctuality.

R 5: Assessment criteria for ppt presentation: voice clarity, facts spoken and pronunciation.

Chart making : cost effectiveness of the materials used, stationery used and other resources used

R 6. Diary writing : presentation, language

Total 1.4percent teacher response revealed that there was one integrated project after they had a visit to Darjeeling, in this each student had to write a poetry in Hindi based on his/her experiences in Darjeeling, had to write a report on the visit in English which the English teacher evaluated for components of grammar and vocabulary used, they had to present a graphical representation of the demographic details of that place which was assessed for its accuracy by the mathematics teachers and in Science the students had to write the animals and plants that they saw in Darjeeling and find out its adaptation and write it which was to be assessed by the Science teachers. So each subject was formatively assessed using an integrated project the only thing the teacher said was that there no alignment between the topics given in the syllabus and this project components but the students enjoyed doing it. But however none of the student response confirmed the integrated project concept.

Learner centered activities for cognitive development except the FA activities

Cognitive skill were developed when opportunities were given to exhibit the skills in formative assessment activities and also when they were assessed some activity based learning experiences were conducted for teaching the concepts and not for assessment

Learner centered activities for Science teaching

Out of 18 Science teachers, eight teachers(44.44percent) did not respond whether they conducted learner centered activity or not. Five teachers (27.77percent) said that they demonstrated the various experiments like showing slide for the biological topics like apical meristem, xylem, Phloem, demonstrated osmosis in the cell, helped them identifying the species through observation, demonstrated precipitates and the colour change during the chemical reactions, demonstrated properties of hydrogen gas and Law of conservation of mass, sublimation and Identification of species through observation. The remaining four teachers (22.22percent) said that they showed power point presentation, showed them how to make a scrap book, used the smart board to teach them topics which needed visuals for understanding and also made indirect MCQs for the students to think critically and answer. However only one teacher out of 18 (5.55percent) said that activities for the students better understanding was conducted but did not write the name of the activity.

When the students were inquired about the activities conducted for Science teaching the students said that they said about the laboratory works done , explanation , discussion conducted and use of smart class. Many students gave more than one response so the total number of responses were 110. Out of 110 students responses total 37 student responses (33.63percent) said that they were allowed to perform the experiments in the laboratory after the teacher demonstrated the experiments, some of the experiments like making of slides of cheek cells and onion peel cells they performed individually, and the chemistry experiments they performed in pairs and the physics experiments they performed in group. Total 14 student responses (12.72percent) said that they were just demonstrated the experiments and they were not allowed to perform. While 14 student responses (12.72percent) said that they were neither demonstrated the experiments nor they were allowed to perform the experiments, they were just theoretically taught about

the experiments. Total 39 student responses (35.45percent) said that discussion happened in their class. While 6 students(5.45percent) said that they were taught Science using the smart class. So this leads to the interpretation that either the students were taught using some other activity based method or lecture method.

Teaching learning process: total student responses about the teaching learning process were 78. Thirty student responses(38.46percent) revealed that the teacher read the text and explained, while two responses (2.56 percent) revealed that teacher first told the summary of the topic and then read the text. However 31 responses(39.74percent) out of 78 responses revealed that the teacher taught directly without text she came prepared and taught directly. Twelve student response (15.38percent) revealed that teacher first gave notes to the students which she/ he dictated and then explained based on that. Three responses (3.84percent) also revealed that the teacher asked the students to read and in between she/he should stop the student who was reading and will explain. Since the responses about the explanation was based on the teaching strategies used by three different teachers in most of the school the percentage here was counted based on the total responses i.e. 78 and not on the total number of students who responded. There were also some schools where the there were only one teacher teaching all three chemistry biology and physics and in other schools there were three different teachers for each chemistry, biology and physics. However the teaching of Science which demands lot of demonstration and teaching aids was simply taught by the text and explaining it well.

From the above analysis of teachers response and students response it emerges that 50percent teachers used practicals like showing apical meristem, xylem, Phloem, demonstration of osmosis in the cell, helping students identify the species through observation, demonstration of precipitates and the colour change during the chemical reactions, demonstrated properties of hydrogen gas and Law of conservation of mass, sublimation and Identification of species though observation and also allowing the students to do it. Four out of 20 classroom observations (20 percent) of Science classes also support this since the teacher demonstrated the experiments then the students performed them. Total 33.63percent student responses also indicated that experiments in the lab were demonstrated and allowed to perform also.

However, 5.45percent students said that they were taught using smart class, and same was endorsed by the 22.22 percent teacher responses who said that they used smart class for teaching so that the 3-d images gave better conceptual clarity and visualization to the students.

Total 38.46percent student responses revealed that the teacher read the text and explained, while 2.56 responses revealed that teacher first told the summary of the topic and then read the text and 39.74percent responses revealed that the teacher taught directly without text she came prepared and taught directly.

Learner centered activities for Mathematics teaching

Out of total 16 Mathematics teachers five teachers (31.25percent) said that they demonstrated different activities given in the activity book to make them understand the concepts, like verify midpoint theorem by activity approach geometrically, obtaining the square root of natural number, making an isosceles triangles by paper folding, Construction of square root spiral; Verification of algebraic identities ; verifying sum of the angles of a triangle was 180 degree. Along with this the teachers also said that they constructed various geometrical diagrams also. Six teachers(37.5percent) said that they conducted the lab activities for better understanding of the topics but did not mention which activity they conducted. This may be interpreted as that they don't conduct the lab activities for better understanding of the concept or may be the lab activity was given to the students to conduct. The remaining five teachers (31.25percent) did not respond so maybe they didn't conduct such activity or they gave the students to conduct lab activity on their own. It appears that the lab activities given in the activity book was the only focus of the teachers or may be that was enough for the making the students understand the concepts; so no other activities were conducted by the teachers.

Teaching learning process: there were total 109 student responses since each student gave more than one response. Out of 65 students 61 (55.96 percent) students said that problem solving were the main method of teaching for mathematics, wherein the teacher used to solve the problems given in the text book and also gave some extra sums from the reference books. All the sums of the text books were not solved some were solved and the similar questions were given fort homework. Total 48 students 44.03percent said that teacher conducted discussion when some sums had to be solved from the reference books

and also the teacher discussed when some student raised some doubt while solving the problem.

Learner centered activities : there were 67 responses out of which 47 student responses70.14percent said that paper cutting activities were also conducted for proving some theorems and finding some identities. However these paper cutting and folding activities were already in the syllabus and a separate activity book was given to them for that, these activities the teacher did not create or bring from some other source. Only 14 students responses i.e.20.89percent said that puzzles were used to teach some of the topics, and 6 (8.95percent)student responses said that the smart class lessons were used to teach some of the topics which had geometrical figures. No other activity or some innovative activities were named by the students.

The above analysis of responses from the Mathematics teacher and the students gives a picture about the activity based classes conducted to teach Mathematics.

31.25percent teachers said that they conducted the activities given in the activity book to make the concepts of Mathematics clear to the students, similarly 70.14percent students said that their teacher helped them do the activity given in activity book for better conceptual clarity of various Mathematical formula and theorems. While 9.09 percent classroom observation show that activity making was done, the teacher was trying to do the paper folding and also trying to draw the same on the board so that the students can understand.

Other activities like using puzzles to teach Mathematics was confirmed by only 20.89percent students . 8.95percent students said that the smart class lessons were used to teach them. 55.96 percent student responses reveal that problem solving was the main method of teaching for Mathematics and this was revealed by 31.25percent teachers also. Total 44.03percent student responses showed that teacher conducted discussion when some sums had to be solved from the reference books 37.5percent teacher responses showed that they conducted the activities for better understanding of the topics but did not mention which activity they conducted.

Learner centered activities for English teaching

Four out 12 English teachers, gave no response about the activity based classes that they held , so either they didn't make any efforts to conduct such classes or they considered

the formative assessment activities only as the activities for learning. Out of 12, eight teachers (66.66percent)said that they conducted almost 4 to 10 activities but, the type of activities conducted listed were extempore, dialogue writing, Role play and conversation writing on My dog named dew, Recitation of Seven ages, Role play on Villa for sale, Debate on girl education on Main course book and writing of a Travelogue, these activities were the ones which were already given in the book for example villa for sale was a role play given in their book itself. So it can be interpreted that the teacher themselves didn't think anything new for clarifying the conceptual understanding of the students or didn't present a model for any LSRW skills from which the students could gather some understanding. Moreover all the activities done were done by the students; the only thing the teacher was doing was evaluating the students based on criteria like Fluency, presentation, content, presentation, intonation and accuracy. This gives an impression that teachers did the activities mainly for assessing the students rather than developing their understanding about the various concepts.

Learner centered activities: Students were inquired about the different activities done by the teacher to teach them the subject. Total 78 responses were given. Total 50 student responses (64.10percent) showed that the role play was done, sometimes to explain the chapter which in itself had role plays, then teacher will explain in between the role play. 20 students(25.64percent) said that there was story telling but the teacher never said the story , students had to say the story. Only eight students(10.25percent) said that there was street play made by them, one student each said that there was debate, story completion activity and story writing competition. So it can be seen here that the teachers hardly played any role in developing the language skills in the student, the only thing that they did was model reading and some of the teachers used smart class to explain grammar topics. Most of the student responses reveal that they had role play but that was for assessment and no feedback was given. It emerges that the teacher themselves didn't put much effort to enhance the cognitive skills related to language but just assessed them or they gave few opportunities like reading, storytelling and role play where the students could display they cognitive abilities.

Teaching learning process: one student gave more than one response so the total responses were 116. Total 53 student responses (45.68percent) said that the teacher read

the text and explained and then gave the students a chance to read one by one. However five students (4.31percent) said that the teacher didn't allow any student to read, one student response (0.006percent) said that the students were allowed to read only if there was a role play in the book, one student response(0.006percent) said that only selected students were allowed to read, three student responses (2.58percent)said that smart class was used to explain grammar topics. However, the teacher conducted discussion was said by 54 students (46.55percent). Four students (3.44percent) said that the teacher explained very well integrating her own life experiences.

The above analysis show that the activities mentioned by 10.25percent and 25.64 percent student response said street play and story-telling was done by them.

Total 66.66 percent teacher responses and 64.10percent student response confirm that role play was conducted based on plays given in the book and students participated in that but no skill based feedback was given. So whether it was street play, role play or storytelling, teachers hardly have any role to play everything was done by the student themselves, the only thing that the teacher can do was give effective feedback. But 64.10percent student responses show that teachers just asked to do role play no feedback was given.

The learner centered method used by the English teachers as revealed by 46.55percent student responses was discussion. However model reading was important for cognition of language skills and allowing the student to read was also important. The model reading was done and then teachers allowed students to read as said by 45.68percent student responses.

0.006percent student responses reveal that teachers only allowed selected students to read; 0.006percent student responses revealed that teachers conducted role play that was given in the book while 4.31percent student responses said that teachers didn't allow any student to read at all.

Learner centered activities for Social Science teaching

Out of total 16 Social Science teachers, three teachers (18.75percent) could not respond about the activity based classes that they conducted.

Out of 16 teachers, 10 teachers (62.5percent) said that they conducted activities like Role play, chart making, model making, group discussion on NREGA and debate on

Empowerment of Indian women act 2005, skit on Poverty story of a village assessment on Presentation skills, crossword making on Story of village Palampur, role play on Electoral politics, mock parliament., passing of the bill—money bill and statutory bill , Rajyasabh and Loksabha and the enactment of functioning of Diwan-e-khas and Diwan-e-aam in the Akbar's kingdom. Though all these activities were to be performed just by the students and teacher had no role to play except assessment if it had to be done, the type of activities might have given a conceptual understanding to the students about the functioning of the parliament, details of NREGA and women act. Out of 16 , three teachers(18.75percent) had conducted Guided self study in history wherein the teacher gave one question and ask them to read one or two paragraphs which consists of those answers for those question of once they have found the answers then they have to discuss with their friends sitting next to them, then they will present in the class and the lacking points and some extra points were added by the teacher herself, taught the children to make story board and also showed videos on iron, steel, mineral resources and extraction of minerals.

Teaching Learning Process

From the student responses it emerges that in some schools there were four teachers to teach social science, one for history, one for geography, and one for civics and another for economics, in some schools only one teacher taught all the topics. Hence when the students were asked how they were taught and which different activities were conducted to teacher history , geography, civics and economics, student had told about the general teacher method for all the teachers so there were 123 responses. Total 74 student response (60.16percent) revealed that the teacher read the text book and explained, 28 responses(22.76percent) revealed that teachers explain without reading the text, while 3 responses(2.43percent) revealed that teacher first asked the students to discuss about the topic among themselves then she explained the topic, one student (0.008percent) said that the teacher gave notes to the students and then she explained, only two students (1.62percent) said that the teacher explained the main points and then she made them underline the main points. Five students(4.06percent) said that the teacher used to smart class to teach them, two student responses showed (1.62percent) each said that the teacher connected the topics to the present day and to the national problems and

connects the topic to teachers real life experiences. Four students (3.25percent) said that the teacher first explained then read the topic from the book. Four students responses(3.70percent) revealed said that that teacher gave notes then explained the topics.

Learner centered activities

The total number of responses was 161 since each student gave more than one response. A total of 61 students (37.88percent)said that they had discussion in their class, 37/65(22.98percent) students said that they had role play in the class, 36/65(22.36percent) students had debate in their class, and 27/65 student responses (16.77percent) reveal that they had quiz in their class.

The above analysis reveal that 62.5percent teachers conducted activities like Role play, chart making, model making, group discussion on NREGA and debate on Empowerment of Indian women act 2005, skit on Poverty story of a village assessment on Presentation skills, crossword making on Story of village Palampur, role play on Electoral politics, mock parliament, passing of the bill—money bill and statutory bill , Rajyasabh and Loksabha and the enactment of functioning of Diwan-e-khas and Diwan-e-aam in the Akbar's kingdom and 83.22 percent student responses also confirmed that debate, discussion and role play was conducted for better understanding of the concept. Moreover from the 75 percent classroom observation, most of the time the teacher tried to create an environment of discussion and debate too. So 83.22 percent students did role play, discussion and debate on various topics related to social science.

60.16 percent students responses revealed that the teacher read the text book and explained, 22.76percent student responses revealed that teachers explain without reading the text.

Guided self study in history was given by 18.75percent teacher responses, wherein the teacher gave one question and ask them to read one or two paragraphs which consists of those answers for those question of once they have found the answers then they have to discuss with their friends sitting next to them, then they will present in the class and the lacking points and some extra points were added by the teacher herself, taught the children to make story board and also showed videos on iron, steel, mineral resources and extraction of minerals and conducting the mock parliament and bill passing session

in Rajyasabha and Loksabha - money bill and statutory bill and the skit on poverty. This was confirmed by while 2.43percent student responses also revealed that teacher first asked the students to discuss about the topic among themselves then she explained the topic. So it can be said that 18.75percent teachers conducted guided self study so as to make the students to understand the concept in a better manner and not for assessment.

Development of Psychomotorskills

The aim was to find out what were the activities planned, implemented and assessed for psychomotor skill development. The data sources were teachers responses, students responses, principal responses and classroom observations. The aspects analysed were the opportunities given for psychomotor development, assessment of psychomotor activities and planning of psychomotor activities.

Opportunities given for Psychomotor Skill development

Teachers, principals and the students were inquired about the opportunities given for development of psychomotor skills. The different psychomotor activities conducted by 80.64 percent teachers, as per their responses were making working and still models, making best out of waste , flower decoration, drawing scientific diagrams, sketching and drawing activities, poster making, role plays, laboratory work, Drawing of scientific diagrams, making charts, projects, salad making, making geometrical diagrams with geometrical box, poster making for value based issues or environment based issues, collage making(save the earth; flood and earthquake), role plays, bulletein board preparation, crossword making, garden work, role play in advertisements, sports events, using musical instruments, sketching activities, heritage cycling all over the city, origami, power point presentation, making geometrical diagrams with geometry box; making still models of different type of angles make using different type of articles found in day to day life , making the congruence of angles using leaf, garden work, map marking using symbols, salad making, street plays, rally participation , use of musical instruments, rally participation(human chain and voting awareness) and heritage cycling all over the city.
80.64 percent teachers ensured that different activities were given to the students where the psychomotor skills were developed. While there were 19.35 percent teacher who did not respond to this question, may be either because they did not give any such activity or

even if they gave any such activity they did not give with the intention of development of psychomotor skills in the students.

Purpose of assessing Psychomotor activities

The response of the teachers about the planning for these activities and the assessment criteria used for assessing them will give an idea, if the psychomotor development was the actual the purpose behind these activities.

Teacher Responses: Out of total 62 teachers 50 teachers (80.64percent) named the activities given for psychomotor development. The different activities given were making working and still models, making best out of waste , flower decoration, drawing scientific diagrams, sketching and drawing activities, poster making, role plays, laboratory work, Drawing of scientific diagrams, making charts, projects, salad making, making geometrical diagrams with geometrical box , poster making for value based issues or environment based issues, collage making(save the earth; flood and earthquake), role plays, bulletin board preparation, crossword making, garden work, role play in advertisements, sports events, using musical instruments,sketching activities, heritage cycling all over the city, origami, power point presentation , making geometrical diagrams with geometry box; making still models of different type of angles make using different type of articles found in day to day life , making the congruence of angles using leaf, garden work, map marking using symbols, salad making, street plays, rally participation, use of musical instruments, rally participation(human chain and voting awareness) and heritage cycling all over the city.

When the assessment criteria were asked to the above 50 teachers who enlisted the psychomotor activities; total 15 teachers (24.19percent) said that common criteria were used for assessment of different activities, 18 teachers(29.03 percent) gave different criteria for different activities, two teachers(3.22 percent) said that such activities were not assessed and 15 teachers did not mention the assessment criteria. The common assessment criteria for all the activities mentioned by 15 teachers(24.19 percent) were as follows. R1, R2 symbolize the different type of responses received from these 15 teachers.

R1: Presentation skills, choice of material, team work, attitude and values.

R2: By observing leadership quality, inspiration quality, teamwork quality, communicating quality and use of life skills.

R 3: contents, presentation, team work (if assigned as group activity), timely submission, clarity of thoughts

R 4: Content, presentation/organization, team work/participation, conclusion/outcome.

R 5: Understanding, reasoning, collecting and time management.

R 6: Appropriate usage of materials for making the model, content clarity, authentic and relevant information and proper write up

R 7: The teacher said the activities which involves psychomotor skills were observed while the students were doing it in the class and was checked for the amount of resources used and the way in which the resources were used and for the innovative ideas that they put in

R 8: content , relevance, originality, presentation and timely submission

R 9: By using checklist, anecdotal records and rating scale

R 10: Correctness of results will be the assessment tool

R 11: content, language, presentation, neatness

R 12: Accuracy, relevance, difficulty level, understanding of facts, reasoning, skill used, information, display and creativity

R 13 : We assess these activities based on the co-ordination of students with other students, participation interest shown by the student, moral and basic values that they learn by doing the respective activity.

R 14: We don't have any assessment criteria we give grades based on our own wish.

R 15: content, expression of content and presentation.

Out of the 50 teachers who enlisted the psychomotor activities, 18 teachers (29.03 percent) used different assessment criteria for different activities .

R 1: model making the criteria like understanding the aim of the model and the working principle behind it was used for assessing it

R 2: for group research: innovation, presentation, confidence, language proficiency, experimentation, use of IT.

R 3: lab work assessment were: how well the slide was made, process of slide making and how well was the microscope focused while the slide was being shown.

R 4: lab activity assessment : discipline stand at their particular roll number apron should be worn, writing whatever was dictated in form of aim , procedure,

R 5: Construction was assessed based on accuracy.

R 6: By using the observation and accuracy in making the geometrical figure.

R 7: Assessed based on the appearance of the articles and the materials used and the neatness in completion of the work.

R 8: Laboratory work. accuracy, performance of the lab activity, neatness, and write up

R 9: Assessment Poster making: neatness, relevance of the topic, clarity and overall presentation. Role play: co-ordination , confidence, accuracy of speech and voice modulation.

R 10: Laboratory work-ASL-listening ability, speaking skills, knowledge of topic, confidence, pronunciation and presentation.

R 11: Role Play: on the basis of presentation, As language teachers their vocabulary, pronunciation, body language, delivery of dialogues, the neatness, understanding of the concept(text) can be used for assessment

R 12: role plays: content(3mrks), presentation (3Mrks), group dynamics(3Mrks), innovative /creative 3Mrks and accuracy 3Mrks.

R 13: Role Play: the dialogue delivery by students, intonation, pronunciation, the sense and understanding of the particular role assigned to the students.

R 14: Role play: expression, fluency, pronunciation, confidence

R 15: The students were assessed with criteria like proper dialogues and correct dictation and proper script for role play and street play

R 16: Role play assessment: theme selected, presentation and subject.

R 17: Collage making: content, accuracy , presentation and punctuality

R 18: role plays**:** performance, expression, actions, clarity in communication

Out of 18teachers , seven teachers(38.88percent) gave assessment criteria for laboratory work either for Scienceor mathematics , seven teachers(38.88percent) gave criteria for role play which was done by English and social Scienceteachers; one teacher (5.55percent)each gave criteria for collage making, assessment of speaking and listening, work experience and poster making; while one teacher(5.55percent) gave assessment

criteria for model making. So the most assessed activities can be considered as role play and laboratory work.

The above analysis shows that out of the 15 teachers who used common criteria for assessing the psychomotor activities, Eight teachers(12.90 percent) out of 50 who enlisted the psychomotor activities gave psychomotor assessment criteria like expression, accuracy, display and creativity, neatness, correctness, presentation, appropriate usage of materials for making the model(manipulation), presentation/organization and communicating which seem to be appropriate for psychomotor assessment. While the remaining criteria like understanding the aim of the model, discipline stand at their particular roll number, write up, relevance of the topic, theme selected for collage making and punctuality mentioned by six teachers doesn't seem to be psychomotor assessment criteria but since an activity is not exclusively done for psychomotor assessment it may have some criteria from other domains liked cognitive and affective also.

Out of 18 teachers who mentioned the criteria of assessment, six teachers(9.67percent) said that performance, expression, clarity in communication (intonation, dialogue delivery), presentation, accuracy for role play which seem to be a psychomotor skill assessment. Four teachers out of 18(6.45percent) had used psychomotor criteria like accuracy, focusing the microscope, slide making for Sciencelaboratory activity while the same four teachers used neatness and accuracy in Mathematics laboratory activity also used speaking skills, pronunciation and presentation for ASL (assessment of speaking and listening skill). Eight teachers (12.90percent) gave criteria for model making and collage making like accuracy, presentation, working, and principle behind the model. All the 18 teachers (29.03percent) who gave different criteria for different psychomotor activities have given appropriate psychomotor criteria as per the type of activity. While eight teachers (12.90 percent) from 15 teachers who gave common criteria of assessment for all the activities had given appropriate psychomotor criteria. So adding both the responses it can be said that 41.93 percent teachers used appropriate psychomotor criteria to assess the psychomotor activities.

Planning of Psychomotor Activity

Out of the enlisted activities for psychomotor development majority of the teachers gave assessment criteria for laboratory activity and role play. So the students were asked about

the regularity and assessment of these two activities. The teachers responses to the assessment criteria were also focused on role play and laboratory activity. But to the questiona about planning of the psychomotor activity only 20 teachers(32.25percent) responded and 42 teachers out of 62 (67.74percent)

The six respondents (9.67 percent) out of 62 were Scienceteachers. They said that they planned for revision session of the Sciencetopics like passing the parcel, planned for practical work given in the syllabus, gave model making to the students.

Six Mathematics teacher(9.67percent), out of 62 revealed the details about the psychomotor activities they planned and said that they planned for construction activities given in the syllabus and the activities given in the activity book.

Four teachers (6.45percent) out of 62 were English teachers, the activities given were role play from the literature book itself, chart making and poster making.

Four teachers (6.45percent) out of 62, were social Scienceteachers, role play, map marking and collage making club called Upaj where the students have to plant a sapling and take care of it.

Laboratory Activities

The students interview analysis also shows that the teachers focused on laboratory activities in Mathematics and Science25 students out of 65(38.46percent) said that they were demonstrated the lab activities and asked to perform in groups and 15 students (23.07percent) said that they performed it individually. The remaining 25 were only demonstrated the lab activities, not allowed to perform. From the above it can be considered that total 40(61.53percent) students got an opportunity to perform lab experiments and were evaluated on the laboratory activities; 25/65 (38.46percent) did not get an opportunity to perform the experiments.

Out of total 14 principals, 11 principals out of 14 principals gave response and three denied responding to any questions.

Three principals(27.27percent) out of 11 did not respond to the question. Four principals(36.36percent) out of 11 said that the sports activities, mass drill and yoga conducted in the school developed the psychomotor skills in the students. Three principals(27.27percent) said that the Sciencelab activities and the Scienceand social Scienceexhibition conducted in the school developed the psychomotor skills. Three

principals (27.27percent) said that the dance and music that they learn in the school help them develop the psychomotor skills. While there was one principal (9.09percent)who said that work experience classes in which the students learnt art and craft, making articles like paper bags, meal planning, embroidery doing, correction of electrical appliances and tips were given for mountaineering, helped them develop the psychomotor skills.

From the above analysis about the planning for psychomotor activities it was can be seen that Seven Teachers 11.29percent had given criteria of assessment for lab activities like accuracy, correctness, slide making ability for Sciencelaboratory activity, microscope focusing ability and neatness as criteria of assessment; only 9.67 percent teachers said that they planned for the mathematics lab activity. while 27.27 percent principals and 61.53 percent students were allowed to perform the laboratory experiments. This shows that for lab activity was planned by only 9.67 percent teachers, 11.29 percent teachers assessed them based on psychomotor criteria and 61.53 percent students were allowed to perform the lab activity without giving any criteria based feedback this was been supported by 27.27 percent principals responses.

25/65 (38.46percent) were only demonstrated the experiments but did not get an opportunity to perform the experiments which might only help in cognitive understanding of the concepts the psychomotor aspects would not be developed. Though laboratory activity has both cognitive and psychomotor skill development, the focus of the majority of the teachers was just to improve the cognitive skills.

Role play

Planning: Seven teachers said out 62(11.29percent) teachers that they planned for role play.

Assessment : total seven teachers (11.29 percent) gave criteria for assessing role play teachers gave criteria for role play which was done during English and social Scienceperiods. The criteria for assessment given were speaking skills, pronunciation and presentation for assessment of speaking and listening skill. During the classroom observation also three out of the 22 (13.63 percent)of social ScienceandEnglish classes role play was conducted and all three were for the purpose of formative assessment, however the teachers just sat and gave the grades on the each child's performance and

sometimes passed the judgment as to whether the child performed well or not, but did not give any criteria based feedback for improvement. This shows that that the assessment was done but no feedback for improvement was given. So some psychomotor criteria were used for assessment but no feedback for improvement was given. Even if the criteria based feedback was not given atleast good points in the students should be appreciated so that the performer gets motivation and other students get to know how to use that particular skill properly rather than doing this the teachers just passed on the judgmental comments which was not much motivating.

If the planning for role play was considered 50 students out of 65(76.92percent) said that role play was done. Sometimes the role play in the text was done for formative assessment activity and sometimes to explain the chapter, so the teacher just observed and graded if it was for assessment or if the role play was for better understanding of the chapter then she will explain in between the role play.

So total 76.92percent student response shows that role plays were conducted especially for those chapter which were given in form of role play in the text books. The students also said that sometimes it was for assessment and sometimes it was for explaining the chapter. Since 38.88percent teachers said that they planned for role play and assessed also, it seems that 38.88percent teachers planned and conducted the role play for assessment purpose and this has been supported by 13.63 percent classroom observations also. So 76.92 percent students performed role play, 38.88 percent teachers evaluated the role play but none of the teachers gave criteria based or skill based feedback to the student for improving their psychomotor skills.

the other psychomotor activities were not named by the teachers but 28.57percent, 27.27percent,27.27percent; 9.09percent principals said that sports activities, mass drill, yoga; Scienceand social Scienceexhibition; dance and music and work experience tasks conducted in the school developed the psychomotor skills in the students respectively.

Development of Affectiveskills

The aspects in this objective was the tools/techniques used for affective skill development. Orientation for writing anecdotal records, format for writing anecdotal records, transaction of life skills, values and attitudes, impact of lifeskill, values and attitude transaction. The data sources were teachers, students, parents and lesson plans.

Tools /techniques used for evaluating the affective skills

Teacher Responses: Out of total 62 teachers, 54 teachers (54.09percent) did not respond about the tools or techniques used for affective skill assessment. Only two teachers (3.22percent) said that the anecdotal records were maintained by different teachers teaching in a particular class were used to assess the affective skills, while the remaining six teachers (9.67percent) said that general observation of the behaviour of the students was the only technique used to assess the affective skills. So there were total eight(12.30percent) teachers who used anecdotal records or general observation for evaluating the students on their life skills, attitudes and values.

Out of 14 principals, seven principal (50percent) did not respond about how the affective skills were assessed and how they were enhanced. Out of the remaining seven who responded; one principal (7.14percent) was unaware about the affective skill so he posed a question to the investigator " what do you mean by anecdotal record." The remaining six principals(42.85percent) said that the affective skills were assessed based on anecdotal records and observation. The activities planned for affective skill enhancement were extramural lecture on MahavirJayanti, AmbedkarJayanti; celebration of Earth day, Environment day; Group dance on cultural perspective of different countries ; visit to an orphanage; donate food and clothes. Life skill activities were conducted based on the manual for life skills.

Format of writing Anecdotal Records

Out of 62 teachers 43 teachers (69.35percent)said that there was no format for writing the anecdotal record. The format given by 13 teachers (20.96percent) had name of the student, date of observation, comment or description of the behaviour and teachers point of view. While two teachers(3.07percent) gave the format which was inappropriate for recording the behavioural aspects; the aspects mentioned were name of the subject, chapter number, topic, tools being used and the homework and performance of the student, this format seem like a lesson plan not a format for anecdotal record. One teacher(1.53percent) said "What did you say anecdotal record .....it means short stories na?" which means that the teacher never heard or read about anecdotal record.

Orientation given for writing the Anecdotal Records

Out of 62 teachers, 55 teachers (88.70percent) said that they were not oriented for writing the anecdotal record. Two teachers (3.22percent) said that they were oriented to write separately for academicians, life skills, sports and performance of the students this orientation did not include mention of anecdotal record. While five teachers(8.06percent) said that they were oriented for writing anecdotal records but did not mention the aspects told to them. It seems they were hardly told anything about anecdotal record.

Utilization of anecdotal recordsfor assessment of Affective skills

However few teachers 15out of 62(24.19percent) said that they were used the anecdotal record for assessing the affective skills. While majority47/62(75.80percent) of the teachers said that all the teachers teaching in a particular class sit together and gives the grade for affective skills based on their general observation i.e. without the use of anecdotal records.

Teacher Responses: The teachers were also asked as to who maintains the anecdotal record for a class. 20 teachers 32.35percentsaid that all the teachers teaching in a class maintained the record, seven teachers 11.29percent said that no one maintained the anecdotal record and 10 teachers (16.12percent) said that the class teachers maintained. Many of the teachers (25/62) 40.32percent did not reveal, who maintains the anecdotal record, which seems that either they don't maintain it or were unaware about it, whatever the reason for no response the anecdotal record was not maintained regularly. Moreover seven teachers said that they don't maintain any such record, if both the numbers were added up it becomes 32outof 62 which shows that a significantly large number of teachers don't maintain the anecdotal record.

Student Responses: Out of 65 students 43 students (66.15percent) said that they were graded for life skills but not shown to them but it was written in the final grade sheet. Out of 65 parents 33 parents 50.76percent did not completely agree with the parameters used for describing their childs' attributes in the report card. While 32 parents 49.23percent said that they parameters written in the report card were as per their childs' personality. More than 50 percent of the parents said that the parameters written for their child were inappropriate. This shows that the observation which was the only technique used for

assessing the life skills, attitudes and values was not used properly. It may also be due to the lack of anecdotes that were maintained regularly. So if the anecdotes were not regularly maintained then the teachers might be giving the grades and parameters based on his/her own perception about the child. This also shows lack of proper orientation for the need of writing anecdotal records and its utilization for assessing the affective characteristics.

From the above analysis certain key points arise which were described as follows. 42.85 percent principal response and 12.30percent teachers responses reflect that observation was the technique used for affective skill exhibited in behavioural terms and anecdotal records were maintained by the teachers to register the observations. However 42.85 percent principal response speaking the fact that anecdotal record and the observation used to evaluate affective skills confirmed that they were aware about the affective skill evaluation and the means through which it had to be done. 7.14percent principals were unaware about the affective skill so a question was posed to the investigator "what do you mean by anecdotal record, were they the short stories?" One teacher(1.53percent) said "What did you say anecdotal record .....it means short stories na?" which means that the teacher never heard or read about anecdotal record.

Total 69.35percent said that there was no format for writing the anecdotal record. The format given by 20.96 percent had name of the student, date of observation, comment or description of the behaviour and teachers point of view. While 3.07percent teachers gave the format which was inappropriate for recording the behavioural aspects; the aspects mentioned were name of the subject, chapter number, topic, tools being used and the homework and performance of the student, this format seem like a lesson plan not a format for anecdotal record. Thus the overall picture was that only very few teachers (8.06percent) were given orientation about the anecdotal records. However a small number of teachers 3.07percent gave inappropriate format of anecdotal record(name of the subject, chapter number, topic, tools being used and the homework and performance of the student) and 1.53percent asked the investigator "What did you say anecdotal record .....it means short stories na?" which can be interpreted as the unawareness about the very purpose of anecdotal records as stated by CBSE. However few teachers 15 out of 62(24.19percent) said that they were used the anecdotal record for assessing the

affective skills. Hence the only tool used for assessing the affective skills was anecdotal record and that was used by only by 24.19percent teachers this was confirmed by 42.85percent principal response also said that affective skills were assessed based on anecdotal records this was also in alignment with the 32. 35percent teachers response who said that all the teachers teaching in the class wrote the anecdotal record. The gap between the teachers' response about the use of anecdotal record for evaluation and the principal response might be because the principals theoretically felt that anecdotal records might be used but in practice only few teachers might be doing it. 32.35percent teachers maintained the anecdotal records but 24.19 use it for evaluating the students. Out of the remaining teachers75.80percent; 11.29percent teachers were bold enough to say that they neither used the anecdotal records nor the general observations for grading the child on the affective skills and 16.12percent teachers said that only the class teachers maintained the anecdotal records and then they discuss about the general observations of all the teachers teaching in a particular class, to grade the students and the remaining 48.39 said that all the teachers teaching in a particular class got together and discussed the general behaviour of the student and then gave the grade. The student response confirms that the affective skills were not objectively evaluated as 66.15percent students said that they were not shown the grades for life skills and attitudes and values and it was given in the report card. The lack of objectivity in observation of the teachers was also reflected in the 50.76percent parent responses who did not agree that to the parameters written in the report card about the life skills attitudes and values of their child was not in alignment with the actual attributes of the child.

Transaction of life skills,attitudes and values

Teacher Responses: Eight out of 18 Scienceteachers (44.44percent) did not incorporate the life skills, values and attitudes during the lesson and planning and while transacting. Two teachers (11.11percent) said that life skills attitudes and values were enhanced by the morning assembly activities; CCA activities and yoga.

Five teachers (27.77percent) said that the students we given group work on save electricity, situational analysis, skit performance for life skill, brain storming sessions, critical analysis of Cinema characters behaviour and attitudes for value development and attitude development.

There were three teachers (16.66percent) who said that they explained life skills (discriminate between desirable and undesirable acts or habits) while explain the Purity of substance and by explaining the compound and the simple mixtures; explained the value of life through explanation about the vegetative propagation; survey project on health diseases were given to teach them the topic and also to help them develop social interaction with their neighbours and hence enhance social values. Eleven out of 16 Mathematics teachers (68.75percent) did not incorporated in lesson plan nor they told about the activities which enhanced life skills, attitudes and values.

Four out of 16 teachers (25percent)said that they have separate teachers like yoga teacher, library teacher and life skill teachers who give grades for life skills values and attitude. One out of 16 teachers (6.25percent) incorporated in lesson plan while explaining Ratio and proportion through the example of salads, to develop positive attitude, Sharing and teamwork towards peers gave statistical data collections and graphs presentation in groups. Four English teachers (33.33percent) out of 12 did not plan for life skill, attitude and value inculcation through the topics that they taught nor did they state separate activities being conducted. Three teachers (25percent) said that separate activities than their regular subject were used to enhance life skill, values and attitudes. Teachers said that speech on Cleanliness and hygiene and practically cleaning of campus was planned to inculcate the values in them; chart making and group discussion on patriotism; doing a role play to enhance social skills; Group discussion on super natural power to enhance the emotional stability and scientific thinking

Two English teachers(16.66percent) said that the worksheet with creative pictures to assess the creativity of the students were used to enhance life skills and values. Two teachers (16.66percent) said that they incorporated life skills, values and attitude in the their lesson plan; Critical analysis of a character PatolBabu given in their book and role play of different phases of the life as given in the Poem : seven ages but they had to write the dialogues on their own which helped them bring out their creativity. One teacher(8.33percent) said that the poetry and the fiction in the English books, if explained properly would develop the life skills and values therewas no need of extra efforts. Nine out of 16 social Scienceteachers (56.25percent) did not plan for the incorporation of life skill inculcation, values and attitudes in their lesson plan.

Four teachers out of 16 (25percent) said that the life skills had separate activities like Poster making on Conservation of resources(environmental values; worksheets ,analysis of some value based cinema; Disaster managements classes and cleaning the villages and horse riding swimming was counted for life skill assessment.

Three teachers (18.75percent) gave examples of incorporation of activities in the teaching and learning for enhancing life skill, attitudes and value enhancement. The topic of land forms made by river, was correlated with the origin of Ganges to develop critical thinking and creative thinking, while teaching them ancient civilization like Mohenjo-Daro and Harappa, the teacher asked them to correlate the formation of land forms with less amount of floods that occurred during those days. Critical thinking, problem solving and decision making was focussed while asking the students to correlate the city planning of Mohenjo-Daro, with present day Chandigarh. Role play on elections for helping them campaign for their political parties in group to help them learn co-ordination with the group members. While assigning the group work a child with low esteem was kept in the team of one with high esteem, so that they learn to adjust with each other. Case study on the topic poverty was given in the chapter 'people as resources', so that the students become aware about the state of poverty in the country and can also critically and creatively think about solving the problem.

During the classroom observations also the investigator could find one class where the students were given a work sheet in which certain problematic situations were given and they had to write how they would solve the problem if they were in that problem. While there was one class where the teacher had incorporated the certain aspects which could make the students aware about the bad condition of the rivers(2percent) while teaching chemistry the teacher discussed for creating while only in two classes the values were focused indirectly(4percent) through social Scienceclass.

Student Responses: Out of total 65 students, 15 students (23.05percent) had just filling in the worksheet, explanation of the life skills this seems to be a superficial level of wherein the teacher just theoretically gives a lecture on the life skills and asks the students to fill in a worksheet based on it. While 17 students (26.15percent) had cinemas and problematic situations given to them for which they had to write their own reflections. Making their own critical reflections would not only make the students creative, critical

thinkers, better problem solvers and will also enhance their capacity to cope with such situation hence can also help them cope with emotions and stress. While 33 students didn't have any separate life skill class (50.76percent).

From the above analysis it can be seen that **l**esson plan analysis of eight Scienceteachers; 11 Mathematics teachers; four English teachers and nine Social Scienceteachers lead to the conclusion that there was no plan for the incorporation of life skill, attitude and values in any of their lessons. So no incorporation of life skills values and attitudes in 51.61 percent teachers lesson plans. The teacher responses to the teacher questionnaire revealed that three social Scienceteachers, two teachers English teachers, one mathematics teacher and three Scienceteacher who incorporated the life skills values and attitudes through teaching of different topics. So total nine teachers (14.51percent) incorporated life skills values and attitudes while planning for teaching learning process.

The large number of teachers not planning for incorporation of values attitudes and life skill enhancement through subjects was evident from the class room observations also only one class(1.88 percent) the teacher discussed for creating awareness in the students about the environmental problems and only two classes the national values were focused indirectly(3.77percent) through social Scienceclass. So it can be said that in almost 2 percent classroom teaching the attitude towards environmental was addressed and in almost 4 percent class national values were incorporated. So in almost only in 6 percent classrooms the teaching learning process the incorporation of values, attitudes and life skills.

The lesson plan analysis shows incorporation of values , attitudes and life skills in the lesson plan of only 51.16 percnet teacher's lesson plans and 14.51 percent teachers wrote in the teacher questionnaire that they planned for the incorporation of life skill, values and attitude integration and only in 6 percent classroom observation the incorporation of values and attitudes were found. So considering the 6 percent classroom observation, 14.51 percent teachers verbal response and 51.16 lesson plan analysis were considered it can be said that only 6 percent classroom teaching learning process incorporates life skill , positive attitudes and values though it was being planned by 51.16 percent teachers

While many teachers teaching two Science Teachers; four Mathematics teachers; three Englishand four social Scienceteachers i.e. total 13 teachers(20.96percent) named

different activities done under co-curricular activities which enhanced life skills, values and attitudes in the questionnaire response. The activities mentioned were morning assembly activities; CCA activities; yoga; Poster making on Conservation of resources(environmental values; worksheets,analysis of some value based cinema; Disaster managements classes and cleaning the villages and horse riding swimming was counted for life skill assessment and speech on Cleanliness and hygiene and practically cleaning of campus was planned to inculcate the values in them; chart making and group discussion on patriotism; doing a role play to enhance social skills; Group discussion on super natural power to enhance the emotional stability and scientific thinking. This has been emphasized by 50.76percent students response who said they didn't have separate life skill class. Thus some students have co-curricular activities for enhancing life skill, values and attitudes. So the 20.96 percent teacher responses and 50.76 student responses support that they had morning assembly, CCA activities like poster making on environment conservation, disaster management classes, analysis of value based cinema, swachchbharat rallies which enhanced the life skills, values and attitudes.

While there were five Scienceteachers and two English teachers. So there were total seven teachers (5.64 percent) who said that there were separate life skills class where different activities like giving creative pictures to assess the creativity, group work on save electricity, situational analysis, skit performance for life skill, brain storming sessions, critical analysis of Cinema characters behaviour and attitudes for life skill, value development and attitude development. This has been emphasised by (26.15percent) students who had cinemas and problematic situations given to them for which they had to write on their own reflections. Making their own critical reflections would not only make the students creative, critical thinkers, better problem solvers and will also enhance their capacity to cope with such situation hence can also help them cope with emotions and stress. So 5.64 percnet teacher response and 26.15 percent student response confirm that there were separate life skill classed in which critical analysis of cinema characters, skit performance, situational analysis and brain storming session were conducted to enhance values life skills and positive attitudes.

There were23.05percent students response who had explanation of life skills and worksheet filling. 5.64 percent teacher response shows that separate life skill class were

there but the type of activities were different. So 5.64 percent teacher responses and 23.05percent student response assures that life skill teaching was done through direct explanation of life skills and giving worksheets based on it.

8.33percent said that the poetry and the fiction in the English books, if explained properly would develop the life skills and values there was no need of extra efforts. Though 8.33percent was very less percent but the response given by the teacher was significant in terms of the least efforts the teacher wishes to take to enhance attitude values and life skills in the students.

So it can be interpreted that planning for incorporation of life skills, values and attitudes or teaching it separately as a subject was less practiced while majority of the teachers tried to develop the affective skills through various co-curricular activities, hence there was no clarity whether the affective skills have to be taught in an integrated way , separately or both.

Training given to transact the Affective skills (Life skills, Values and Attitude)

The principals were asked regarding the training and orientation given to the teacher with respect to life skill, attitude and value enhancement by the teachers. Two principals (14.28percent) out of 14 principals said that the teachers were taught how to be observant about the life skills, values and attitudes while in the class and also got a theoretical idea about integrating the life skills, values and attitude in the lessons taught no practical experience was given. Though the integration was not exemplified but the theoretical explanation also helped the teachers to some extent to think in those lines to integrate the life skills, attitudes and values while making the plan for teaching and for co-curricular activities. The remaining two principals (14.28percent) said that the teachers were oriented how to make different activities for life skill classes and value enhancement, due to which the teachers planned for food festival and environment day celebrations to enhance the different values like co-operation, team work and environmental awareness. There was one principal (7.14percent) who said that when CCE started Life skills were taught as separate subjects, but from 2014 onwards, some schools started integrating them into subject topics.

It can be said that 51.61percent teacher responses which reveal the incorporation of the

life skill attitude and values in the subjects they taught may be due to few teacher training for it which was supported by 14.28 percent principals responses which said that the training program taught the theoretical concept of life skills values and attitude and explained how to be observant about the student behaviour but no practical exposure was given.

However 7.14percent principals responses reveal non- uniform training orientations given for the integration of life skills attitudes and values to the teachers. While 28.57percent responses reveal that the orientation or training was given for organizing co-curricular activities for enhancement of life skills attitude and values before 2014. Total seven principals (50 percent) did not respond about any training/orientation given to the teachers, so either the training to their teachers was not given or the principals themselves were unaware about the life skills values and attitudes enhancement as given in the CCE objectives.

Impact of Life skill, Values and Attitude assessment and transaction

The impact was studied based on the parent responses. Out of the 65 parents, 53 parents(81.53percent) say that the students have improve on life skills but they have improved more on thinking communication and social skills, while the emotional skills were not much addressed. However, one parent(1.5percent) was of the view that the child will develop all this with his own experiences it need not be taught and the remaining 11 parents (16.92percent) felt that there was no much change in the life skills in the students. Total 52 parents (80percent) said that there was no much difference in the attitude of the student and remaining 13 students(20percent) felt that the attitude cannot be taught it comes from the family and this cannot be developed in school. While, 50 parents(76.92percent) said that there was no change in values of the students and four parents(6.15percent) said that the students improved upon co-operation and politeness. While the remaining 11 parents (16.92percent) said that the values were to be taught at home and that the school should focus on teaching the content properly rather than celebrating so many festivals, festivals were celebrated at home and also said that they were taught to socialize with their peers but due to so many assessments they hardly were able to attend the family social functions due to which they do not socialize with their cousins and elders in the family.

The above analysis show that total 81.53percent parent responses revealed that the thinking skills and socials skills especially the communication was enhanced due to assessment and transaction of life skill and emotional skills were not enhanced at all . This shows that only the thinking skills and socials skills were being enhanced through different life skill activities or the classroom teaching but the emotional skills were not addressed. While the 80percent parent responses show the lack of attitude enhancement due to the lack of proper attitude of the teachers towards the students and the subject itself and classroom environment.While 76.92 percent parent response revealed that there was no much change in values indicate that the values were not taught properly neither separately nor in an integrated manner through subjects.

4.2 Analysis & Interpretation of Enhancement of Values, Attitudes and Life skills

To check whether the different practice done in the CBSE schools really enhances the life skills, values and attitudes three tools for measuring life skills, attitudes and values were implemented as pre-test and post test on the 164 students. The life skill test had total 153 items which were divided into sets for the ease of implementation i.e. Tool A with 85 items and Tool B with 68 items. The life skill tool was a 5-point Likert type scale. The response for all the 153 items on Tool A and Tool B was to be given on scale from N(never), R(rarely), S(sometimes), O(often) and A(always). While scoring the the responses N was scored as '1'; R was scored as '2';S was scored as '3'; O was scored as '4' and A was scored as '5'. The scoring and analysis of all the items of tool A and B were done together since both the tools had items related to the 10 life skills namely Critical Thinking,Decision Making,Problem Solving,Effective Communication,Self Awareness,Creative Thinking,Interpersonal Relation,Empathy,Coping with emotions and Coping with Stress as given in the CCE teachers manual.

There were total 60 items in the attitude scale which was made to measure the attitude of the students towards school, teacher, peers and environment. This attitude scale was also 5-point Likert type scale. The responses on the attitude scale was elicited on the scale which ranged from SD(Strongly Disagree), D(Disagree),U(Undecided), A(Agree) and SA(Strongly Agree). While scoring the repsosnes of the students SD was scored as '1'; D was scored as '2'; U was scored as '3', A was scored as '4' and SA was scored as

‘5’.

A tool made to measure the ten values given in the CCE teachers manual namely politeness & courteousness, commitment, honesty and ethical integrity, peer influence, leadership, community awareness, respect for diversity, time management, respect for opposite sex and self respect was made . This tool made for measuring value was called Tool D and had 119 items and the response was to be given on five point Likert scale. For all the items related to politeness & courteousness, commitment, peer influence, leadership, community awareness, respect for diversity, time management, and respect for opposite sex the five point scale ranged fromN(never), R(rarely), S(sometimes), O(often) and A(always). The responses N was scored as ‘1’; R was scored as ‘2’;S was scored as ‘3’; O was scored as ‘4’ and A was scored as ‘5’. While for the items related to honesty & ethical integrity and self respect the responses were elicited on the scale that ranged from SD(Strongly Disagree), D(Disagree),U(Undecided), A(Agree) and SA(Strongly Agree). While scoring the responses SD was scored as ‘1’; D was scored as ‘2’; U was scored as ‘3’, A was scored as ‘4’ and SA was scored as ‘5’.

The life skill tool , attitude tool and tool to measure value was implemented to find out the effect of the various CCE activities being done to enhance the life skills, values and attitudes in the students.

The pre-test and post test scores were compared based on the Wilcoxon Sign Rank test. Since the data was a ranked data and the sample was randomly selected from the population and each respondent had a pair of scores, the Wilcoxon sign rank test was implemented. Hypothesis for testing the pre-test and post test was not made since the aim of conducting the pre-test and post-test was to find whether the CCE activities contributed to the enhancement of life skills, values and positive attitudes in the students, moreover the investigator had not implemented any program for the enhancement of the life skills, values and attitudes so the control group was also not taken. The sole idea was to check whether there was a contribution of CCE activities in enhancement of values, life skills and attitudes.

The analysis of Wilcoxon sign rank test for the scores of life skill tool shows that the Z value for Life skill tool was found to be -8.583.The p-value was found to be 0.000 which was less than 0.05 level of significance. So it can be said that there was a significant

difference in the pre-test and post test scores of the students on life skill tool. Thus it can be said that the CCE activities conducted in the CBSE schools did have significant contribution on the enhancement of life skills in the students in duration of one academic year.

The Z value for the attitude scale was found to be -6.736 and the p-value was found to be 0.000 which was less than the confidence level of 0.05. Thus it can be said that the pre-test and post test scores differed significantly. So it can be said that the CCE activities contributed significantly in enhancing the positive attitude towards school, teachers , peers and environment in the students during one academic year.

The wilcoxon sign rank test analysis shows that the Z value for the Tool measuring value was -4.284 and the p-value was 0.000 which was less that the confidence level of 0.05 thus it can be said that the pre-test and post test scores differ significantly. So it can be said that the CCE activities had contributed significantly in the enhancement of values of the students during one academic year.

However it cannot be denied that the students were also influenced by the environment at home and there was no efforts done by the investigator to zero out the effects of influence of home environment or the outside school environment which might also had an influence on the life skill, value and positive attitude enhancement. But it can be definitely said that the enhancement in life skills, values and attitudes definitely was influenced by the CCE activities since five hours of their day they spend in the school daily.

4.3 Analysis & Interpretation of Feedback provided for the written and performance based formative tasks

The aspects considered forthis objective were the type of feedback given for written tasks like notebook, assignments and formative test papers; Feedback given to low achievers ; Feedback given for performance based activities ;Criteria based feedback given for performance based activity . The data sources were teachers, principals and student responses, lesson plans , classroom observations.

Feedback given in notebooks, answer books and assignments : The type of feedback given to the students also play a vital role in motivating and de-motivating the students or

giving them proper feedback about their life hence the teachers were asked what type of feedback they gave to the students on the written formatives. For this the feedback given on the notebook completion and the formative pen paper tests were considered.Out of 62 teachers four teachers(6.45percent) did not respond. From the remaining 58 respondents, eight teachers gave more than one response, so the total number of responses were 65. Total 14teacher responses out of 65(21.53percent) revealed that the written feedback was given with comments like good, very good and excellent or incomplete as applicable; four responses(6.15percent) revealed that the mistakes were encircled or demarcated when incomplete answers written and it wasupto the students to ask the details of the demarcation; five responses(7.69percent) showed that corrections or missed out points were written in the notebooks and answer books. However 28 responses (43.07percent) revealed that both oral feedback and written feedback were given, but the written feedback were like good, very good keep it up or need to improve, incomplete work etc. While 10/62 teacher responses(15.38percent) revealed that they did not write anything in the notebooks or answer books, they only gave oral feedback. Thus written feedback was only limited to writing comments like good, excellent, keep it up , incomplete in the notebooks as reflected by 14 teacher responses who give such written feedback and 28 teacher responses (43.07percent)that revealed that both oral and written feedback were given.

Feedback given for the formative test papers: Out of the total 62 teachers 48 teachers (77.41percent) said that they discussed the mistakes done by the majority of the students after correction of the formative test papers when the papers were shown to the students. Seven teachers did not respond seven out of 62(11.29percent). Two teachers out of 62(3.22)percent said that the correct answers were written in the place of incorrect answers. One teacher out of 62(1.61percent) said that the mistakes were discussed during the PTM in front of the student and the parent; one teacher one out of 62 (1.61percent) said that the mistakes were discussed during the extra class and two teachers out of 62(3.22 percent) said that the mistakes were discussed in the class and during PTM and one teacher out 62 (1.61percent) said that individually the mistake was told to the students. Adding up the number of teacher responses in which it was shown that the

students were given oral feedback either in the extra class, individually, during PTM or in front of the class, the total was five responses(8.06percent) can be considered

Parents Response: Out of 65 parents 51(78.46percent) said that the notebooks were corrected but no mistakes were pointed out or no comments for correction were written; eight parents(12.30percent) said that the motivating comments like good, excellent neat work keep it up were written; while four parents (6.15percent) said that only comment written was incomplete if at all it was incomplete or late submission and two parents (3.07percent) said that teachers wrote the points that the students had not written. Eight parents(12.30percent) said that the motivating comments like good, excellent neat work keep it up were written; while four parents (6.15percent) said that only comment written was incomplete if at all it was incomplete or late submission. So the total written comments given by the parents can be taken as 12 out of 65 (18.46percent).

Students responses for notebook correction: Out of 65 students said that their notebooks were checked regularly, and only two students said that notebooks were not checked. Three students out of 65(4.61percent) said that the teacher only wrote 'seen' after checking the books; 35 students out of 65 (53.84percent) said that the teacher wrote good or very good or incomplete wherever applicable ; one student 1/54(1.53percent) said that teacher only wrote comment on handwriting; three students3/54 (4.61percent) said that the teacher just wrote comment on improvement of vocabulary; nine students 9/54 (13.84percent) said that teacher wrote only incomplete if applicable otherwise no comment written. Adding all the above responses for the written comments given by the teacher as told by the students, it can be said that total 51 student responses(78.46percent) reveal that teachers gave written feedback by writing incomplete, seen, good or very good in the notebooks. While three students out of 65(4.61percent) said that the teachers wrote the missed out points for the students. Out of 65,11 students9/65(13.84percent) said that no comments was written at all during correction.

Students responses for formative tests assessment: All the 65 students said that they were shown the formative assessment test papers after they were corrected. Total 34 students (52.30percent) said that no comments were written for wrong answers only they were marked wrong and that it wasupto the students to go to the teachers and find out why the answers werewrong or what were the missing points in their answer; 23 students

(35.38) said that teachers wrote comments for improvement; 8 students out of 65 (12.30percent) said that teachers wrote the incomplete points in their answer books for them to understand. Out of 65 students, 50 students(76.92percent) said that the teachers discussed the common mistakes of the students in the class before showing the corrected papers. Only 15 students (23.07percent) said that the teachers called the low scorers separately and explained them their mistakes and gave suggestions for improvement.

However 33 out of 65 student responses show that the mistakes in the formative papers were marked and it was up to the students to go and ask about the mistake or the missing points in the answer but however the major mistakes done by all the students were discussed before showing the corrected answer books as said by 50 studentsoutof 65. Thus individual feedback either in written or oral form was very meager and feedback to the low scorers was also very less.

Feedback given to low achievers

Teacher Responses: Out of 62 teachers 37 teachers (59.67percent) said that they gave personal feedback to low achievers. Six teachers (9.67percent)gave feedback in front of the class itself; eight teachers(12.90percent) said that they gave feedback both in front of the class and the personally also; two teachers (3.22percent)gave feedback to students in front of the parents only; four teachers(6.45percent) said that they gave feedback personally and parents also. Five teachers (8.06percent) said that they did not give separate feedback to low achievers.

Student Response: Only students responses show that 17 students (26.15percent) said that the teachers called the low scorers separately and explained them their mistakes and gave suggestions for improvement. while the remaining 48 students (73.84percent) said that they were given feedback in front of the class. During the classroom observations in one of the classes where the formative test papers were being shown the teacher scolded the student who score less by saying ‘only completing your notebooks by copying it from your friends will not fetch you marks in the exams’ and after this all the other students in the class laughed, this was indeed discouraging for the student for whom this was spoken and he just shook his head and looked at his answer sheet. So in 1/53 classes the low scorer was discouraged in front of the class. From the classroom observation also it can be seen that out of the 5/53 classes observed where the formative assessment papers were

being given the teacher only responded to the students who went to the teacher ask about their mistakes and missing points and some of the shy students just asked about their doubt to their friends who scored well. Thus the proper feedback for the low scorers was not given through formative assessment tests

Feedback given for Performance Based Activities

Teacher response: out of 62 teachers, 18 teachers (29.03percent) said that immediate feedback was given for FA2 and FA4 activities, 26 teachers (41.93percent) said that the feedback was given after the correction of the submitted assignment or project; 13 teacher (20.96percent) said that no feedback was given and five teachers (8.06percent) said that the feedback was not given but the grades were given at the end of the semester in report card. Above responses show that 18 teachers gave immediate response and 26 teachers gave responses after the correction of the submitted assignment which can also be considered immediate. So adding both the responses it can be said that 44 teachers (70.96percent)gave immediate response. While 13 teachers said that they gave no feedback and the five teachers said that the grades were given in the report card no feedback was given so both the responses can be considered as one. So adding both the responses it can be said that 18 teachers(29.03percent) said that no feedback was given.

Student response: Out of 65 students 44 students (67.69percent) said that immediate feedback was not given and the grades were also not shown to them immediately, grades were written in the report card. Total 16 students (24.61percent) said that sometimes the immediate feedback was given for presentations and enactment, but most of the feedback was on improvement of presentation skills or the feedback will have only good, very good or good confidence. While 21 students(32.30percent) said that feedback was not given on the activities which were submitted like charts, projects, assignments etc.

While 15 student responses(23.07percent) said that they were given the criteria of assessment while the instructions for formative activities was given but no feedback was given based on that and neither the grades were shown so the teachers might be considering it as criteria based feedback. From the classroom observation also 3/48(6.25percent) also it was observed that the teachers only gave feedback on confidence no criteria based feedback was given.

Criteria based feedback given for Performance Based Activity

Teachers responses : Out of 62, 45 teachers (72.58percent) said that no criteria based feedback was given verbally to the students. While 12 teachers (19.35percent) said that they gave criteria based feedback, to the students in those activities had to perform like some presentation, role play, demonstration of a model etc. Two teachers (3.22percent) said that neither the criteria were told nor the grade was told to them. 45 teachers (72.58percent) said that no criteria based feedback was given to the students and two teachers(3.22percent) said that nether the grades not the criteria based feedback was given to the students. Adding both the responses it can be said that 47 teachers(75.80percent) said that no criteria based feedback was given to the students and 3.22percent teachers said that the grades were also not shown. While 3 teachers(4.83percent) said that they already gave the rubric to the students while instructing for the activity hence no feedback was needed and the grade were given in the final report card. so it can also be said that 59 teachers out of 62(95.16percent) did not give the criteria for assessment while instructing the students about the formative activity.

Classroom observation: Similar was the observation during classroom observation, 5 classes(10.41percent) out of 48, where the teachers were assessing the students on role play, they did not give any criteria based feedback only feedback given to two or three students was good and very good, the teachers regularly wrote the grades in the diary/book.

Students' responses: Total 60 students (92.30percent) said that they were not given criteria of evaluation nor were given criteria based feedback. All the 65 students said that the grades for FA activities were not shown to the students; it was given in the final semester exam result card only.

Instructions given for formative activities: Before the activities the students should be given appropriate instruction also. In this regard, 41 students(63.07percent) said that the criteria for evaluation was not given while giving instruction for the activity, nine students(13.84percent) said that the criteria for evaluation was told to them when the instruction for the activity was given and 15 students(23.07percent) said that sometimes they were told the criteria on which they would be assessed.

Principal responses: When the principals were asked about the orientation given to teachers about the feedback, all the 14 principals said that it was up to the teachers to give feedback to the students, the teachers were not told how to give feedback. It was up to the teachers to give criteria based feedback or not to do so. This shows that the actual aim and importance of giving feedback to the students on the formative activities was not conveyed to the teachers.

Analysis of formative assessment sheets: The formative assessment sheets for various activities were received from four different schools for different formative activities that were conducted. The sheets had the criteria for assessment for different formative activities assigned to the students. The name of the schools cannot be disclosed so they were named S1,S2,S3 and S4. However the other schools denied givning such sheets so the available data has been analysed.

Table 4.10. Rubric Analysis for Different Subjects (Schoolwise)

Subject	Name of the activity	Criteria for assessment	Name of the school
English	Chart making on theme: Theme 1: Gulliver and Captain Richard Theme 2: emperor of Lilliputs and Lilliputians	Creativity, Comprehension, Interpretation, Clarity, Presentation	S1
	Essay writing on library week	No criteria of assessment, only two columns were made and total marks were written as 4 and 6.	S2
	Write a reported speech	No criteria of assessment, only three columns were made and total marks were written as 3,4,4.	S2
	Advertisement making and presentation	presentation , facts and accuracy	S2
	Radio show on any topic	Content, language and presentation	S4

	Group discussion on current social issues raised in the news papers	Group dynamic, fluency, presentation	S4
	Conducting an interview on the topic named Dog named Duke: The Solitary reaper.	Content, creativity, fluency, presentation and group dynamics	S4
Mathematics	Lab activity on laws of exponents	**lab ethics** (bringing the proper materials and arranging it in the space given, proper utilization of lab material); **lab discipline**(punctuality); completes activity independently, needs help to complete activity, works independently to complete the task, tries and makes effort but the task wasincomplete, just initiates the task	S1
	Mathematics activity from the activity book(lab activity)	Understanding, precision, neatness, accuracy logical thinking and rational thinking.	S3
	Make a project on the use of geometry in daily life	presentation, knowledge and accuracy	S4
	sums on probability	interest, calculation and report	S4
	Group activity to find area of different shapes using Heron's formula	Assembling all the shapes and drawing the figure; making the list of formulae as per instruction; finding area of each part and the whole figure	S4
Social Science	Paragraph writing on conservation of natural resources	correctness of information , analysis, originality of presentation	S1

	prepare working and non working models to use renewable source of energy	presentation and understanding	S4
Science	Model making in biology	participation, innovation and interest	S4
	Chart making in chemistry	concept, innovation, art	S4
	Experiment performance on laws of inertia, momentum, and laws of force	Material used, performance, explanation of the concept and answers in viva voce.	S4

The above analysis shows that the total parents responses for the written comments given in the note book were 12 out of 65 (18.46percent). So it can be said that 18.46percent parents said that written comments were given in the notebooks. Adding all the student responses for the written comments given by the teacher, it can be said that total 51 students(78.46percent) gave written feedback by writing incomplete, seen, good or very good in the notebooks. The written feedback was only limited to writing comments like good, excellent, keep it up , incomplete in the notebooks as reflected by 42 teacher responses(64.61percent) out of 65 responses. Two parents (3.07percent) said that teachers wrote the points that the students had not written. five teacher responses(7.69percent) showed that corrections or missed out points were written in the notebooks. While three students 3/65(4.61 percent) said that the teachers wrote the missed out points for the students. Total 51(78.46percent) parents said that the notebooks were corrected but no mistakes were pointed out or no comments for correction were written and 11 students9/65(13.84percent) said that no comments were written at all during correction. While 10/62 teacher responses(15.38percent) revealed that they did not write anything in the notebooks or answer books, they only gave oral feedback.

Total 43.07percent teacher responses revealed that both oral and written feedback were given None of the parent responses or the student responses confirm this so this response cannot be considered as a finding. Adding up the number of teacher responses in which it

was shown that the students were given oral feedback either in the extra class, individually, during PTM or in front of the class, there were five teacher responses(8.06percent) which revealed that oral feedback was given to the students individually or during PTMs. Total 34 students (52.30percent) said that no comments were written for wrong answers only they were marked wrong and it was upto the students to go to the teachers and find out why the answers were wrong or what were the missing points in their answer. Total 48 teachers (77.41percent) said that they discussed the mistakes done by the majority of the students after correction of the formative test papers when the papers were shown to the students. Total 50 students(76.92percent) said that the teachers discussed the common mistakes of the students in the class before showing the corrected papers. 3.22 percent teacher responses showed that the correct answers were written in the place of incorrect answers. 12.30 percent student responses showed that teachers wrote the incomplete points in their answer books for them to understand.

Total 59.67percent teachers said that they gave personal feedback to low achievers and 12.90percent teachers said that they gave feedback both in front of the class and the personally, so adding both it can be said that 72.58percent teachers said that they gave personal feedback to the low achievers. While 73.84percent student responses confirm that the low achievers were given feedback in the class itself. In 6 out of 53 classroom observations(11.32 percent) classroom observations i.e. approximately 11 classroom observations it was shown that low achievers were given negative feedback in front of the class itself. Since 11 classroom observations prove that the low acheiivers were not given personal feedback rather were given harsh feedback in front of the class it confirms that 72.58 percent teacher responses about giving personal feedback to low achievers might was just a an ideal way of responding.

From the student responses and the teacher responses it can be seen that 67.69percent students said no feedback was given to the students , while only 29.03percent teacher said that the feedback was not given, hence only few teachers could be honest enough to say that they did not give any feedback. Total 32.30percent students said that feedback was not given on the activities which were submitted and checked by the teacher later on like charts, projects, assignments. Total 41.93percent also said that they gave feedback after

correcting the submitted projects or assignments, but it seems impossible since the teachers might not remember the feedback to be given to each student, it seems the teachers might be giving grades based on the criteria but might not be able to give criteria based oral feedback to each student. So 32.30 percent students never got feedback for submitted tasks like projects, assignments, charts etc. on the skills that they have to improve then how those skills can be further enhanced. Total 70.96percent teachers said that they either gave immediate feedback or after correction of the assignments, 23.07percent student responses showed that the rubric or criteria of evaluation were already told to them while instructing for the FA activities so the teachers might be considering it as criteria based feedback and 16 students (24.61percent) said that whenever immediate feedback was given it was in form of good or very good and feedback on confidence and presentation skills only. The 3 classroom observations out of 53 also (5.66 percent) i.e. approximately 6 percent also indicate that the teachers only gave feedback on confidence exhibited by the students, no other criteria were spoken. If the numeric value for students given the criteria of evaluation during instruction and the number of students who got superficial feedback in form of 'good' and 'very good' then it was 47.68percent.

13.84percent students said that the criteria for evaluation was told to them when the instruction for the activity was given. While 4.83percent teachers said that they already gave the rubric to the students while instructing for the activity hence no feedback was needed and the grades were given in the final report card. Total 75.80percentteachers said that no criteria based feedback was given to the students. The same has been expressed by 60 students (92.30percent). Similar was the observation in 5 out of 53 classes (9.43 percent) classes i.e. 9 percent classes, where the teachers were assessing the students on role play that they performed, but did not give any criteria based feedback only feedback given to two or three students was good and very good, the teachers regularly wrote the grades in the diary/book. Total 19.35percent teachers said that they gave criteria based feedback, to the students in performance based activities like role play, presenting a model or a skit. But none of the students responses supported this.Only 3.22percent teachers said that the grades were not told to the students it was given only in the final result card. This was confirmed by the responses of all the 65

students who said that the grades for FA activities were not shown to the them; it was given in the final results. This shows that majority of the teachers did not give criteria or grade to the students but only 3.22 teachers were honest to disclose that they didn't do so. Out of the seven formative assessment rubric for English activities two rubric i.e. 28.57percent rubric did not have the criteria written only the marks obtained by the students out of ten were written. In one(14.28 percent) of the criteria for evaluation of advertisement making in English activities out of the seven rubric analysed was 'accuracy' which seems inappropriate

the assessment criteria could have included the content in the advertisement or the innovative ideas put to present the advertisement or the script written for the advertisement could have been a criteria. Out of all the criteria of assessment given in rubric of five Mathematics activities, assessment criteria for the lab activities in Mathematics was different in different schools. School S3 didn't do the lab activity in the lab and had assessment criteria like Understanding, precision, neatness, accuracy logical thinking and rational thinking. While school S1 had separate Mathematics laboratory and had assessment criteria like lab ethics; lab discipline; student completes activity independently, needs help to complete activity, works independently to complete the task, tries and makes effort but the task was incomplete, just initiates the task. School S3 focused on the Mathematical abilities to be assessed while school S1 focused on the individual abilities to perform the lab activities and the behavior that student exhibits in the laboratory. This shows that the flexibility given by CBSE in terms of taking formative assessment has been used in such varied ways by the teachers. There were only two social Scienceactivities that could be gathered from the schools. Out of that one activity(50percent) to prepare working and non working models for using renewable source of energy and the criteria of assessment were 'presentation and understanding' since the model were being made the usability of the model, the working of model could have been a criteria of evaluation none of such criteria were there. This shows that the teacher was just concerned about giving a worthwhile topic for formative activity but assessed it just for the sake of doing it so the appropriate criteria of assessment were not used.Out of the three Scienceactivity rubric two were (66.66percent) were not appropriate. Model making in biology was assessed on the criteria 'participation,

innovation and interest' since it was a formative activity it would be compulsory for all the students to participate then participation should have been a criteria of assessment. Also 'Interest' was an innate ability the assessment of the model will not show the interest that the student has in biology. The assessment criteria could be the appropriate use of scientific principle for making the model, the usability of the model, the material utilized for making model could have been criteria. Another activity was Chart making in chemistry which was assessed on the criteria 'concept, innovation, art' the criteria of concept selected/ depicted in the chart and the innovative idea used to depict it seems appropriate but the criterion of 'art' seems odd for an activity related to science. The criteria could be the organization of the content or the ideas on the chart or the comprehensive representation of the content or the logical sequencing of the content or ideas. All the 14 principals said that it was up to the teachers to give feedback to the students, the teachers were not told how to give feedback. It was up to the teachers to give criteria based feedback or not to do so. This shows that the actual aim and importance of giving feedback to the students on the formative activities was not conveyed to the teachers by the principals who had to actually manage the entire CCE implementation along with the teachers.

4.4 Analysis& Interpretation of Diagnosis and remediation of learning difficulties for improving student's achievement

This objective was analyzed with three aspects: regularity in diagnosis of the students learning difficulties; Tools/Techniques used for diagnosis; Means used for remedial practices and provisions in the time table for remedial classes. The data sources were teacher responses, student responses, principal responses.

Regularity in diagnosis of students' learning difficulties

Teacher responses: There were total 62 teachers, but 14 teachers did not respond (22.58percent). Total 48 teachers responses (77.41percent) responded about the frequency of diagnosing the learning difficulties. If diagnosis has to be used to improve the students' performance then it should be done frequently.

Few teachers gave more than one response the total responses was 64. Out of 64 responses, 27 teachers responses(42.18percent) showed that the diagnosis was after the

completion of every chapter. While 16 responses(25percent) revealed that diagnosis was done while revising the syllabus before the exam. Total 13 teacher responses (20.31percent) said that diagnosis was done after a unit of related chapters was taught.
One teacher response (1.56percent) showed that the diagnoses of learning difficulties was done during stay back. One teacher(1.56percent) diagnosed learning difficulties while checking the notebooks and class tests; four teachers(6.25percent) diagnosed learning difficulties during the teaching learning process itself; one teacher(1.56percent) diagnosed the learning difficulties while the students solves the extra questions after every chapter; One teacher (1.56percent)said that the diagnosis was done after all the chapter in the semester was taught.

Table 4.11. Frequency of Diagnosis of Learning Difficulties

Sr. No.	Frequency of diagnosis	Number of teacher responses
1.	After the completion of every chapter	27
2.	After a unit of related chapters was taught	13
3.	While revising the syllabus before the exam	16
4.	Diagnosed learning difficulties during stay back.	1
5.	Diagnosed learning difficulties while checking the notebooks after the completion of two chapters	1
6.	Diagnosed learning difficulties during the teaching learning process itself	4
7.	Diagnosed the learning difficulties while the students solves the extra questions after every chapter	1
8.	After all the chapter in the semester was taught	1

The above analysis show that total 42.18 percent teacher responses revealed that diagnosis of the learning difficulties was done after every chapter. While 20.31percent teacher responses showed that the diagnosis was done after teaching two or three related chapters in a unit. Total 25 percent teacher responses showed that the diagnosis was done during revision, so it seems that the teachers have and probably the teachers might be

solving the students' doubts that the students have so it seems that teachers have understood diagnosis and solving doubt as the same thing. Total 6.25 percent teachers responses showed that diagnosis was a continuous process and it occurred during the teaching learning process, but if the steps of diagnosis were observed it seems impossible to do continuous diagnosis. During the teaching learning process, the doubts of the students could be solved so it seems that the teachers considers solving doubts and diagnosis as the same thing. 20.31percent teachers responses revealed the diagnosis after teaching an unit of related chapter and 25percent teacher responses showed diagnosis done during the revision periods. Adding both the responses it can be said that 45.31percent teacher responses showed that diagnosis was done after a few chapters were taught.

Tools/Techniques used for diagnosis

Out of 62 teachers 48 teachers used different means to diagnose the learning difficulties. Each teacher out of 48 teachers gave more than one response. So the responses of the teachers were comprehended in the following way.

Table 4.12 Sources used for Daignosis

Sr. No.	The ways used to Diagnose the Learning Difficulties	Number of teachers
1.	Identifying difficulties based on the oral responses of the students	**35**
2.	Based on the queries/doubts/questions raised by the students	**34**
3.	After assessing the exam papers	**23**
4.	while correcting the notebooks	**18**
5.	Class test performance	**5**
6.	Based on face reading and facial expression	**3**

Total 48 teachers responded to the means used to identify the learning difficulties. Each teacher gave more than one response, so the total number of responses was 118. Total 35 teacher responses(29.66percent) revealed that the learning difficulties were identified based on the oral responses of the students to the questions asked by the teacher. Thirty four teacher responses(28.81percent) revealed learning difficulties were identified based

on the queries/doubts/questions raised by the students. Total 23 teacher responses(19.49percent) revealed that learning difficulties were identified based on assessment of the exam papers. Eighteen teacher responses(15.25percent) showed that learning difficulties were diagnosed while correcting the notebooks. Five teacher responses(4.23percent) confirmed that Class test performance helped in diagnosing the learning difficulties. Three responses(2.54percent) revealed that learning difficulties were diagnosed based on face reading and facial expression.

The above analysis shows that there was no specific tools used for diagnosing the learning difficulties of the students, as it could be seen 29.66percent of the teachers, 28.81percent teachers used oral responses of the students and type of queries/doubts/questions raised by the students to identify the learning difficulties respectively.

While the process of diagnosis included preparing a diagnostic test based on the difficult areas of learning identified after the achievement test. Thus, it can be said that 58.47percent teacher responses revealed that they have equated identification of concepts difficult for understanding of concepts by the students to diagnosis of learning difficulties. Adding all the responses of the teachers who said that Exam papers, class tests and notebook correction were the sources used for diagnosis of learning difficulties the total percent of teachers 38.97 percent. The responses from 38.97 percent teachers reveal that the learning difficulties were found while correcting the exam papers, class tests and notebooks, thus no diagnostic tests were made by these teachers for diagnosing the learning difficulties.

The steps of diagnosis and remediation mentioned in the literature says that diagnosis and remediation should be error centered or student centered. The five steps of diagnosis and remediation include : identifying the students committing errors(who were the pupils having trouble?); identifying the concepts for which they have trouble(where the errors were located?); finding out the causes of the errors committed(why the errors occur?); finding out the remedies as per the causes of errors identified(what remedies were suggested?); finding out how to prevent the errors(how can the errors be prevented?)

However none of the teachers mentioned about making of such a diagnostic test. Thus either the teachers have not understood about the diagnosis process or not having time to diagnose or they give least importance to the diagnosis of learning difficulties

Thus there was no specific tool or technique used for diagnosis of learning difficulties of the students so that they can be provided remedial classes and lead to improvement in the students' performance.

Strategies used for remedial teaching and time provisions for conducting remedial classes

The teachers were asked what they do after diagnosing the learning difficulties and the following responses were given. Some teachers gave more than one response so the number of responses was more than the number of teachers who responded. The responses given were organized in the following table.

4.13 Strategies Used for Remediation

Sr. No	Different strategies used for giving remediation	Number of teachers responses
1.	Arrange for peer teaching	23
2.	Re-teach even if slow learners have not understood	15
3.	Plan for remedial teaching forthe slow learnersimmediately	13
4.	Re-teach thetopicif majorityof thestudents havenot understood	14
5.	Provide micro teaching	4
6.	Furtherclarificationandexplanationwaspostponedtillallotherchaptersin thesyllabi werecompleted.	3
7.	Students weak in the subject called in the general period like art, games P.E to help them by making them understand the difficult concepts	2
8.	Take up the topics during the revision	2
9.	Only retest given no remedial given	2

Out of 62 teachers only 48 teachers responded about what they did after diagnosing the learning difficulties. But since some teachers gave more than one response, the total number of responses was 78. Total 23 teacher responses(29.48percent) revealed that after diagnosis they arrange for peer teaching and 15 teacher responses reveal that they re-teach even if slow learners have not understood(19.23percent). While 14 teacher responses (17.94percent) reveal that they re-teach thetopicif majorityof thestudents havenot understood and 13 teacher responses (16.66percent) showed that the teachers plan for remedial teaching forthe slow learnersimmediately after the diagnosis. Four responses(5.12percent) show that the teachers provide micro teaching. Three responses revealed that further clarification and explanation was postponed till all other chapter sin the syllabi were completed. While two responses reveal that the students diagnosed weak in the subject were called in the general period like art, games P.E to help them by making them understand the difficult concepts. Also two responses each revealed that the hard topics diagnosed were discussed again during the revision session and that only retest were conducted for the weak students to improve their score but no remedial classes were given after diagnosing their learning difficulties.

Time allotted in the time table for Remedial Class: All the 62 teachers said that there was no special period for remedial class allotted in the time table. Though there was no special allotment for remedial classes, in the time table still the teachers responded about the time slots when the remedial could be conducted. However, only 31 teachers named the time slots that could be used for remedial teaching.

Out of 31, six teachers (9.67percent) said that they had two periods in a week which could be used for remedial teaching and for other purposes also; three teachers (4.83percent) said that they had a zero period every day in which the teachers can arrange for remedial teaching or for other purposes like co-curricular activities and syllabus completion; one teacher (3.22 percent) said that they had one hour daily for remedial classes one subject each day after the school gets over.

Nine teachers (14.51percent) said that the remedial classes were conducted during periods like CCA, PE, games, yoga, art and drawing or in the free period or recess. Eight teachers (12.90percent) said that the weak students were called on 2nd and 4th Saturdays when the school doesn't work but only teachers were coming no students turn up. Four

teachers (6.45 percent) said that remedial was conducted when they had stay back after the school twice in a week.

Topics taught for the remedial class: The teachers were also asked to name the topics for which the remedial was conducted in the semester. Out of the total 31 teachers who said that they conducted remedial classes by adjusting the free periods or the co-curricular periods or during stay back or on 2nd and 4thsaturday, only 11(17.74percent) teachers could name the topics for which the remedial classes were conducted in the present semester or last semester. Two teachers (3.22 percent) said that they conducted 2 periods remedial for grammar; two teachers (3.22 percent) conducted remedial conducted for the chapter People as a resource in social science. One teacher (1.61 percent) conducted remedial for physical features of India; one teacher (1.61 percent) had conducted remedial for writing skill improvement while two teachers (3.22 percent) conducted remedial for Linear equations, trigonometry, Co-ordinate geometry and quadratic equations. Two teachers (3.22 percent) conducted remedial to teach out the classification of animal kingdom and one teacher (1.61 percent) conducted remedial for chapter Was matter around us.

Principal responses: Out of 14 principals, six principals (42.85percent) said that the remedial classes were not conducted. Three principals (21.42percent) said that the remedial was conducted after school hours when the teachers have stay back. Two principals (14.28percent) said that the remedial class was held on 2nd and 4th Saturdays, when the school was not working while one principal(7.14percent) said that remedial teaching was done in school during zero periods. Two principals (14.28percent) said that the remedial were conducted during PE periods, games period or drawing period.

Student responses: Out of 65, total 29 students (44.61percent) said that there were no separate classes for low scorers. Eighteen students (27.69percent) said that there was compulsory remedial class for the students who scored less, they were called on Saturdays when the school did not function. Remedial classes were conducted some times in zero period as said by eight students (12.30percent).The remaining 10 students (15.38percent) said that remedial classes were arranged during stay back of the teachers but it was at the wish of the students whether to attend or not.

Parent responses: Out of 65 parents total 29 parents (44.61percent) said that there were no extra classes or remedial class for the slow learners or the weak students. Total 18 parents (27.69percent) said that remedial class were arranged 2nd and 4th Saturday when the school was not functioning while eight parents(12.30percent) said that the remedial class were conducted in the zero period in the time table which were also used for other activities. Ten parents (15.38percent) said that remedial were conducted during on two days of the week when the teachers stay back was there, but the students were not ready to go.

From the above analysis there were four types of responses that emerge. One type of response was that remedial classes were arranged during stay back of the teachers but it was at the wh of the students whether to attend or not. This has been a provision offered to weak students for remedial class as said by 15.38percent students, 15.38 percent parents, 21.42 percent principals and 6.45 percent teacher responses. Also1.61 percent teachers said that each day after the school was over subject wise remedial class were arranged for which the weak students had to compulsorily stay back. So the addition of both the teacher responses for conducting remedial classes during stay back and having daily remedial classes makes the number of teacher responses was 8.06 percent. The teachers had to stay back on two days in a week.But however the 15.38percent parents said that the students were not interested in going for the class on the stay back days. The number of responses from the parents and students were in alignment hence it can be said that 15.38percent students were having provisions of attending the remedial classes during teacher stay back days or daily remedial periods, as arranged by the respective schools.

27.69percent student responses, 27.69percent parent responses, 14.28percent principal responses and 12.90 percent teacher responses confirmed the provision of remedial classes on 2nd and 4th Saturday when the entire school was not functioning and only the teachers were in the school. this provision was available and was compulsory for all the weak students or low scorers to attend. The teacher responses, parent and student responses were almost nearby in terms of numerical figures. Thus it can be said that 27.69percent students had the provision of compulsory remedial classes on 2nd and 4th Saturdays when the other students were having holiday. But the 27.69percent parents

respondents said that though this arrangement was there from the teachers side not all parents co-operated to bring their children to the school on a holiday. So there were instances in which though the remedial class were arranged parents didn't co-operate to bring their children for remedial classes.

The third type of arrangement was having remedial in zero period /circle period which could be used for remedial teaching as per 4.83 percent teachers or having two periods in a week for remedial as said by9.67 percent teachers , adding both the number of teacher responses it can be said that 14.5 percent teachers had some period which could be utilized for remedial teaching. While 12.30percent students, 12.30percent parents, 7.14percent principal responses said that remedial classes were conducted only sometimes in this period, since most of the times this period was used for co-curricular activities. 41.66percent classroom observations were done in the zero period and found that those periods were used for completion of the syllabus rather than remedial teaching. Thus it can be said that 14.5percent teachers have the provision of using the zero period for remedial teaching but they use it for general teaching and completion of their syllabus rather than remedial teaching and also that period was utilized for co-curricular activities sometimes.

The fourth type of time slot used for remedial class was using the recess or free period or PE periods or games periods or drawing and arts period for solving the doubts. This was reflected in 14.28 percent principal responses and 14.51 percent teacher response. None of the parents and student response confirmed that remedial teaching was conducted in PE period or games period or drawing or art period. But none of the students spoke about the use of recess or co-curricular activity period for the use of remedial teaching. Thus it can be interpreted that teachers might be calling the students to solve their doubts in the recess or other periods and this they considered as remedial teaching. Thus 14.51 percent teachers did not understand the meaning of remedial class they considered solving the doubts in recess, PE period drawing period or art period as remedial teaching.

4.5 Analysis & Interpretation of Modifications in teaching learning strategies; learning environment provided to the learners, based on the type of learners

To find out whether evaluation has become an integral part of teaching learning it was necessary to find out the environment provided by the school and the teacher for teaching learning; teacher empowered through the various training programs to conduct teaching learning process in the CCE perspective; teacher empowered through the various training programs to conduct teaching learning process in the CCE perspective; components of the training program that helped them to improve their teaching learning process and evaluation process and what further was needed in terms of training.The data sources were teacher responses, principal responses, student responses and parent responses, lesson plan analysis and classroom observation**.**

Orientation of teachers with respect to CCE components and agencies involved in it

Out of 62 teachers, 45 teachers(72.58percent) were orientated through orientation program, either by CBSE personnel or by the school principal. 10 teachers (16.12percent) could know about CCE from their colleagues and 6 teachers(9.67percent) got to know by reading the teachers manual. One teacher (1.61percent) was introduced to CCE through the B.Ed. course that she pursued. The 45 teachers who attended the orientation program were given orientation by the principal of the school itself and the components of the program were introduction to teaching skills, classroom management, innovative ways of teaching, tools and techniques of evaluation, structure of CCE inclusive of FAs and SAs and the criteria of assessment life skills , the grading pattern, objectives of CCE knowledge about the integrated projects. While 5 teachers received orientation from the nodal officer of CBSE Principal of one of the schools in the district, who talked about the criteria of assessment for the co-scholastics, up gradation to be given to the students in one subject based on the co-scholastics grade, OTBA and PSA. Total 6 of them were given orientation by the CBSE empanelled publishers like Codova, oxford etc. told them basic structure of CCE and then started showing the books published by them and the activities mentioned therein but the remaining 2 teachers said that they were oriented by a resource person who came from CBSE board Delhi and they told them about the innovative teaching different

type of tests like pen paper test , problem solving tests , classroom management parameters of assessment like communication skills, and comprehension skills. However two teachers had received training from NCERT. 4 teachers were trained by the KVS all were kendriyavidyalaya teachers, the aspects of training were FAs, SAs, co-scholastic aspects and the grading point scale even the two teachers were trained by the mentor schools , but they did not mention the aspects of training.

The above analysis shows thatsince CCE had a structure which was quiet different than the traditional structure, for which each teacher had to be given atleast some orientation. The data shows that 52(83.87percent) teachers have been oriented by the principals or the nodal officer or by the CBSE personnel, who touched upon all the aspects of CCE. Four teachers (6.45percent) who were trained by KVS were also orientated about all the aspects of CCE. But six teachers (9.67percent) oriented by CBSE empanelled publishers were just told about what was CCE and then were shown about the formative activities which was to be conducted.

However it was clear that 90.32percent teachers were oriented atleast once through official agencies like KVS, CBSE or Principals 9.67percent through publishers. But atleast all were oriented once about CCE.

Duration of the training and its impact on teaching learning and evaluation process

The studies reviewed show that there has been a great impact on evaluation after the teachers have been trained. Hence more the training more should be the impact. So analysis was done in terms of impact of one training, two training and three or more than three day training. From the teachers response it was learnt that there were 15(23.81percent) teachers who got only one training, 13 teachers (20.96percent) got two trainings and there were 16(25.40percent) teachers who got more than 3 trainings while 18 teachers(29.03percent) never got any training. So out of the total teachers 23.81percent teachers had received only one training.

Impact of one training (duration 1 day)

Aspects of training : Out of the 15 teachers (23.81percent) responded that the training was of one day and it just gave a general outline or structure of CCE and what type the type of tools to be used for evaluation and the name of the activities that can be used for formative assessment.

I**mpact on teaching learning process:** 9 teachers out of 15(14.51 percent) spoke that the one training did not make any impact on their teaching strategies while 3 teachers (4.83percent)said that they could plan some activities for formative assessment and evaluate them better than before. The remaining 3 teachers(4.83percent) say that they could think out of the box and plan some activities for formative assessment and could also teach the students with discussion method and they could do criteria based evaluation after the training. It can be seen that majority of the teachers who had one training only have hardly gained anything from it so as to bring change in their teaching learning process.

I**mpact on the evaluation process** : out of 15 teachers 7 (11.22percent)teachers did not respond as to how the training helped them in evaluating the students, probably the training did not help them much in the evaluation of the students as per CCE norms. While 2 teachers (3.22percent) responded that they could understand the structure of the evaluation of formatives which was FA1-pen and paper 10 marks; Activity one 8 marks; Activity two of 7 marks Total 25 marks ;Same pattern for FA2;FA3- Pen paper test 10 marks and integrated project 15 marks; Co scholastic aspects: Group activities conducted – value based and making of charts presentation. The remaining 6 teachers (9.67percent) said that they could learn that the child was not only to be evaluated based on the pen paper test, he has to be graded on pen paper test one 9 point scale and to grade his co-scholastic aspects his general behavior has to be observed and has to be graded on 5 points scale. They also said that topics can be given for role play and debate so that the child's hidden talent can be exposed and we can develop his life skills like comprehension and communication skills.

Impact of two trainings

Out of 62 there were total 13 teachers(20.96) had taken only two trainings.

Aspects of the training: Only 2 (3.22percent) said that one of their training was general and one was specific to the subjects, one teacher was given specific training to social Scienceteaching and the LSRW. While there were 3.22percent teachers had both the trainings for subject itself, out of which 1.61 percent teacher got training related to ASL and ELT, 1.61 percent teacher got training related to use of smart class for mathematics teaching . Total six teachers out of 13 i.e 9.67 percent teachers had both the trainings in the general way, and the remaining 4.83percent did not specify as to how was the training whether general or specific.

Impact on teaching learning

The two teachers 3.22percent who took two subjects specific training could use the smart class in revising the mathematical concepts due to the skills taught in the training, the other teacher said that the subject specific trainings helped in improving the teaching strategies and to include social skills, emotional skills, thinking skills and literary skills while teaching.

Out of 13 teachers, 3.22percent teachers who attended the one subject specific training could understand the practical use of language compared to traditional trend of learning English. The teachers said that due to training the focus was more on the speaking and presentation skills of the students.

Even the 9.67 percent teachers who took two general training said that Teaching became activity based with frequent feedbacks, correlation of topic with other subjects was done, planning for projects, better classroom management was some of the learning from the general training.

I**mpact on evaluation** : Out of the 13 teachers, who had two trainings; 3.22percent teachers said that the subject specific training helped them to understand the use of tools like Observation schedule, Rating scale, document analysis, anecdotal records, objective types questions, short answer questions can be used for scholastic assessment and observation for the presence of Social skills, emotional skills, thinking skills, values and attitude towards peers, literary and creative skills, performing arts skills for co-scholastic assessment , they also learnt about the use of rubric for assessment. While 9.67 percent teachers who had both the training as general training could not learn anything about the evaluation from training, they were just given the list of innovative evaluation tools like

Skit, drama, role play and group discussion and creative activities like using the placards for assessment. Out of all the 13 Only one teacher(1.61 percent) said that the training helped specifically with respect to evaluation, the teacher could make the Questions based on skill and knowledge and helped in understanding the use of rubric for activity assessment, the training also helped the teacher to make rubric consisting of criteria like presentation, discipline and language.

Impact of three or more trainings (1 day to 2 days training)

The impact of 3 training or more than 3 trainings was also found during analysis of the teacher responses .There were 16 teachers who had taken 3 trainings or more than that .**Aspects of the training**: Out of 16; 7 teachers (11.29 percent) had attended the general training in which creative ways of teaching were told to them, type of FA activities were told to them, but the teachers would not mention even a single creative way of teaching or they could not name a single formative assessment activity which was told to them in the training however the general training was given by the CBSE empanelled publishers like oxford, Codova and others. Two teachers (3.22percent) mentioned that the trainers enlisted the scholastic activities and co-scholastic activities that can be conducted in general. Four teachers(6.45 percent) said that the training focused on showing the Mathematics activities especially with respect to algebra, life skill and value inculcation , clarification of the basic Mathematical concepts, kind of activities to be conducted chapter-wise in social science, Rubric making for formative assessment activities like interviews, quiz, surveys given in social science, and the teaching strategies to gather the interest of a student i.e his/her interest in history, geography, civics or economics and also the trainers told them how to conduct the remedial classes. Out of the 16, the remaining three (4.83 percent) said that they had subject specific training but the content of the training that they described revealed all general aspects like developing the intellectual as well as mental level, having a different approach towards content and subject, assessment of aesthetic skills and other skills, method of checking the answer sheets has changed and has implemented the grading system and overall evaluation of the students. Out of these three, two teachers had just one day training programs and one teacher was from KV who had undergone 1 week training especially for his subject still could not spell out some specific things highlighted in the training. This gives an impression that either the training program was not enriching or the

resource persons were not competent to make an impact on the teacher's ability to improve teaching learning strategies.

I**mpact of training on teaching learning process**: Total ten teachers out of 16(16.12percent) mentioned how their teaching learning process has changed due to training. The Scienceteachers said that they learnt creative ways of teaching and ways and means to involve the students, like conducting lab activities, other activities but did not mention the names of the activities. The mathematics teachers said that after training the activities done in the workshop were really useful for conducting formative assessment. Also the social Scienceteachers said that they developed the ability to analyse the content develop activity from the content, find out the feasibility of the activity, Reliability of activity and learnt to develop parameters/scoring scales and how to give feedback. The teachers also said that the subject specific training helped them to realise that improving self skills will only lead to better learning in the students. The teachers said that they could change the approach of teaching from "It was not what I want to get from students but what they have learnt, that I have look".

The teachers also said that they learnt how to observe a child and what all aspects to observe in the child, also they learnt some activities to generate interest in the child for social Sciencelike quiz, debate, and discussion. Thus 16.12percent teachers responses show that they gained from continuous subject specific training, has helped them to use analyse the content , integrate lab activities and other activities to teach the subject in a better manner.

I**mpact of training on evaluation process**: out 16 teachers who underwent more than three trainings six teachers(9.67 percent)said that through training they could understand the Period at which the formatives activities have to be conducted , how to take re-test, ways to evaluate the life skills, values and attitudes of the students, making rubrics and conducting remedial classes, formats for assessing different activities especially the formative assessment activities and also ways to give feedback. Since 6 teachers out of 16 (9.67 percent) gained an insight into assessment it can be said that even the general training helped the teachers to understand the evaluation process in details. However the 4 out of the 16 teachers (6.45 percent), who had taken up subject specific training said that training helped to know how to evaluate the life, values and attitudes of the students and observe

positive attributes and negative attributes of a child in the group work like team spirit, creativity, problem solving, different parameters to evaluate different type of activities, how to make the rubric or parameters of evaluation. This shows that more number of training and especially the subject specific training creates a greater impact on the teachers understanding of the system.

There were three teachers (4.83 percent) who didn't have any training but had lot of discussion in their subject specific department made in the schools from which they gained lot of experience about teaching learning process and evaluation process. Even without having any training after orientation they could swiftly do evaluation and teaching learning process based on the principles of CCE given in the teacher's manual. The remaining three teachers (4.83 percent) didn't feel that training helped them to improve the assessment practices.

Duration of training and frequency of training from principal questionnaire

All 14 principals(100 percent) had taken training with regard to CCE and its aspects.

All 14 principals were asked about the duration and frequency of the training given to the teachers, the agencies who organize the training was also asked. All 14 school principals said they had training programs but the frequency of the programs was not fixed. Out of these 14 principals, three principals (21.42percent) said that they had their own in-house training in form of workshops and trainings which was definitely done once in a year and mostly it was subject wise, the duration of this in-house training was 2 to 4 days and sometimes resource persons from CBSE were also invited to give a one day training and at that time they also invited teachers from other CBSE schools to participate in the training program. Two principals (14.28percent)said that they had one week subject specific training program for teachers once in 5 years organized by KVS. Nine principals (64.28percent) didn't have a definite training every year, as and when the other schools organized some training program they sent their teachers or else whenever the CBSE empanelled publishers like Ratnasagar, Codova, Madhuban, or oxford came with their new books and gave some training that was provided to the teachers, the Sahodaya(group of CBSE schools of Gujarat state) which had a committee and a chairperson also organized some workshops and trainings.

Aspects of training : The different kind of trainings organized in the last 5 years for the

teachers were, overview of all CCE aspects like ASL, use of rubric making, problem solving, considering learning disabled students and how to handle them; special training program on Life skill training; workshop on Importance of Scienceeducation, how to conduct activity (evaluation was done based on the teachers manual by the teachers), Capacity building program on CCE for teachers, special training on training program on ASL and the one week KVS in-service training was compulsory for all PRTs, TGTs and PGTs. All the mentioned trainee program was for one day or maximum two days only KVS training was for one week(but it was overall training CCE was taken up only in one session remaining sessions were for subject enrichment).

Aspects of training given by CBSE empanelled publishers: General trainings given by the CBSE empanelled Publishers for half a day in which the general structure of CCE was explained and then the specific features content of the books published by them were told.

However, all the principals said that there was no training that was compulsory from CBSE and hence it was up to the schools and the teachers to participate in the trainings related to CCE. Moreover all the trainings were paid except the ones given by CBSE empanelled publishers, because the publishers were more interested in displaying the specific features of their books. So the teachers who were really motivated to attend paid and attended the training. It can be interpreted that the since the training was not compulsory majority of the teachers got oriented about CCE but could not get proper training unless the school was really interested in providing the training.

Changes observed in the teachers after training: The principals were also asked about the changes that they observed in the teachers after the training program with respect to teaching learning process and the evaluation of students.

Out of the 14 school principals only four(28.57percent) said that they have seen the teachers change their teaching learning strategies, one principal (7.14 percent) said that the teacher have learnt to integrate life skill activities in their subject teaching itself while another principal(7.14 percent) said that the teachers have become objective in identifying the student learning problems and addressing them and two principal said that the teacher were using different pedagogies to improve their teaching learning process especially integrating the new updated knowledge of their subjects. While the

remaining 10 principals(71.42percent) did not respond anything about the changes in the teaching learning strategies in the teachers after they underwent training.

Out of the 14 principals, only 8 principals(57.14percent) indicated that they have observed the changes in the teachers with respect to the evaluation as per the guidelines of CCE, the principals said that the training made them thinking about various type of activities that can be taken up for formative assessment, they could understand life skill evaluation and they could evaluate the student based on parameters and could maintain the evidences properly after the training. The remaining 6 principals(42.85percent) did not respond about the changes they observed in the teachers with respect to evaluation.

The above analysis shows that 64.28percent principals responseconfirm that the teachers were sent for one day training program either at other schools organized, which was not fixed or CBSE empanelled publishers like Ratnasagar, Codova, Madhuban, or oxford organized some training. However all the principal responses (100percent) indicate that CBSE did not make training for teachers compulsory and majority of the principals 64.28percent did not organize compulsory training program for teachers, they just sent the teachers to other schools to get training when it was organized for one day or gave one day training when publishers came to the school. However the duration of the training program was 1 day and all the training programs organized at different schools were paid programs and those conducted by publishers were free. But the aim of the publishers was to advertise the features of their book rather than teacher training.

Only Two principals (14.28percent) said that the teachers had one week subject specific training given by KVS.

Three principals(21.42percent) confirmed that the teachers were given subject specific training every year for 2 to 4 days in the in-house training sessions.

The above points indicate that most of the principals 10 principals(71.42percent) principals did not indicate the changes in the teaching learning process after the teachers were trained but were more focused on seeing how the teacher organize the activities for formative assessment and how they evaluate and then make it as an evidence rather than improvement in the teaching learning process. While only few principals 4/14(28.57percent) that have teachers have learnt to integrate life skill activities in their subject teaching itself, they have become objective in identifying the student learning

problems and addressing them, and were using different pedagogies to improve their teaching learning process especially integrating the new updated knowledge of their subjects. This indicates that only 28.57percent principals were focused on the improvement of teaching learning process so as to improve the assessment results. But the remaining 57.14percent principals were interested in completion of formative assessment and collection of the evidences.

The frequency and duration of the training programs does have an impact on teaching learning process and evaluation process. This was indicated by the teachers responses.

Only 4.83 percent teachers who underwent one training program had learnt only how to use discussion as a good method for the teaching learning process. while only 4.83 percent teachers could modify the evaluation pattern due to one training program.

While 3.22 percent teachers who got two subject specific training and 9.67percent teachers who got two general training could understand about the planning of the project to be given to the students for formative assessment and could get strategies for classroom management.

3.22 percent teachers who got two trainings could use of tools like Observation schedule, Rating scale, document analysis, anecdotal records, objective types questions, short answer questions can be used for scholastic assessment and observation for the presence of Social skills, emotional skills, thinking skills, values and attitude towards peers, literary and creative skills, performing arts skills for co-scholastic assessment , they also learnt about the use of rubric for assessment and 9.67percent teachers teachers who had two general trainings could only learn the list of innovative evaluation tools like Skit, drama, role play and group discussion and creative activities like using the placards for assessment.

While 16.12 percent teachers who underwent 3 or more trainings show that they gained from continuous subject specific training, and learnt how to analyze the content and integrate lab activities and other activities to teach the subject in a better manner.

However there were 16.12 percent teachers who got three or more trainings either general or subject specific could understand the Period at which the formatives activities have to be conducted , how to take re-test, ways to evaluate the life skills, values and attitudes of the students, making rubrics and conducting remedial classes, formats for

assessing different activities especially the formative assessment activities and also ways to give feedback, ways to evaluate the life , values and attitudes of the students and observe positive attributes and negative attributes of a child in the group work like team spirit, creativity, problem solving, different parameters to evaluate different type of activities, how to make the rubric or parameters of evaluation.

Thus with the increase in the number of training programs there was a better understanding in the teachers with respect to the evaluation tools to be used and the different teaching learning methods to be used.

There were total 18 teachers i.e. 29.03percent out of 62 who never got any training**.**

So it can be concluded that the principals also understood CCE in terms of an evaluation pattern and an evidence creating system about child's assessment and were least focused on improving the teaching learning process. It was a fact that evaluation was not a stand-alone function of the school system, teaching learning and evaluation go hand in hand, if evaluation has to be improved or changed the teaching learning pattern also needs to be changed. It can also be said that since Principals themselves did not wholistically understand the meaning of CCE they would have hardly put any efforts to make the teacher understand the actual meaning of CCE.

Training needs identified

The questionnaire also intended to find the training needs of the teachers. Out of the 62 teachers only 11 teachers (17.74percent) revealed the training needs, however it seems that though 29.03percent teachers had never got any training still only 17.74percent teachers spoke about the training needs. Most of the respondents were novice teacher or the ones who had not got any type of training or the teachers who were really having many discussions with their colleagues about the various activities and also had many training. 2 teachers(3.22percent) said that the list of activities for formatives should be given and it should be fixed and the evaluation criteria should also be fixed. One teacher(1.61 percent) said that training needed to do some innovative activities so that all type of children were taken care of (both the inactive and the active students). Two teachers(3.22percent) said that subject specific training should be given to give clarity in Parameter based evaluation so that students can be evaluated properly in subject

specific formative assessment activities and pen paper tests. One teacher (1.61 percent) highlighted the need to have training in conducting interdisciplinary teaching. One teacher(1.61 percent) emphasized the need to have demonstration of the formative activities for each subject so that it was uniformly practiced across the schools.

Two teachers (3.22percent) said that in Mathematics there were many topics where the activities can't be planned so training should be there to find out such topics and give training on that and also time management was a great problem in Mathematics so some strategies should be shown to reduce the time consumed so that the syllabus was completed in time. One teacher (1.61 percent)said that training to prepare the result as per the CCE guidelines should be given. one teacher (1.61 percent) also said that there should be some platform where we can express about the redundant data in the textbooks so that the students were given the right knowledge , because the textbooks were updated only once in 8 to 10years so the students over the years learn the same content especially the statistical data related to population , literacy rate, and other geographical and civics related data.

Use of formative assessments results to modify the teaching strategies and create a better learning environment

The teaching strategies play a vital role in defining the learning environment, so to know this, the teachers were asked to share about their experiences, about instances where they identified a learning difficulty and had to change their strategy immediately. Out of 62 teachers which consisted of 18 Scienceteachers, 16 Mathematics teachers and 12 English teachers and 16 social Scienceteachers, it was found that only 12 teachers identified the difficulty of the students and modified the strategy to explain them in a better way.

Table 4.14. Number of teachers modifying teaching strategies based on learning difficulty

Sr. No	Number of teachers	Subjectwise teacher responses	Total number of teacher respondents out of 62
Science	2 out of 18	11.11percent	3.22percent
Mathematics	4 out of 16	25percent	6.45percent

English	3 out of 12	25percent	4.83percent
Social Science	4 out of 16	25percent	6.45percent

Out of 18 Science Teachers only 2Scienceteachers(11.11percent) said that they used the method of dictating the notes and then explaining them the concept so that they can better understand because only explaining was making them move away from the topic and also in one of the class students were asked to get arranged in form of DNA structure so that the students can understand the structure of DNA.

Four out of 16 (25percent) were Mathematics teachers and 3 of them used the smart class to explain Euclid axioms, teaching mensuration 3-D shapes, cross section of cylinder and one teacher related the topic of mensuration with the daily life objects to explain it in a better way like cooking utensils and glass and cups.

Three out of 12 English teachers(25percent) used demonstration of the prose text in from of small skit, group work followed by discussion of the novel" three men in a boat" and use of more grammar related examples to make the students understand the poetic devices used in the poem.

4 teachers(25percent) out of 16 Social Scienceteachers, the modified strategies included teaching the French revolution using smart class, asking the students to silently read two paragraphs and then asked each student about his/her doubt and clarified the doubts, making the model with the students of the physical feature of India for explaining them well , use of questioning like 'big boss' to teach all the topics related to civics.

There were total 13 teachers identified the difficulties but did not change the teaching strategy or if at all they have changed they did not mention. 4 teachers (30.76percent) out of 13 identified that the difficulty was there in understanding topics related to Data, reproductive biology, mole in chemistry. Six out of 13 teachers(46.15percent) said that the doubts that emerge were solved immediately or in the recess, but whether the teaching strategy different or not was not mentioned. While 3 teachers out of 13 (23.07percent) said that they identified problems were inability of the students to do home work due to doubts, inability to understand the medium of instruction and so the teachers started to teach only important topics with respect to board paper. However 5 teachers (8.06percent) said that

they never had to modify their strategies because they always used the discussion method to explain the topics. While a large number of teachers i.e.32 teachers (51.61percent) didn't respond to this question.

Methods used in learner centered approach: The methods of teaching play a vital role in ensuring the classroom environment so the teacher were asked to tell about the methods used for the learner centered approach of teaching. 18 teachers out of 62 teachers gave no response (29.03percent), so it may be interpreted as they were not using any learner centered methods for teaching or they were not ready to share the methods used. However the remaining 44 teachers used the learner centered methods like using charts, discussion, peer learning, allowing to ask questions, debate, experiment and demonstrations in the lab and inside the classroom, use of ICT, students to solve one or two on the board., dramatization, recitation, reading aloud, model speech, role play, debate.

It can be said that the teachers might not be sensitive enough to modify their teaching strategies in the class as per the need but they plan very good learner centered methods to teach.

The teacher were also asked what kind of teacher centered methods they use while teaching so all the 62 said that they used lecture method. 44 teacher said they used the learner centered methods and all the 62 said they also used lecture method, so itwas necessary to find out the methods of teaching used predominantly. So they were also asked what type of classroom environment they like to complete their syllabus, to know which method they might be using maximally to complete the syllabus. Out of the 62 teachers 7 teacher gave no response (11.29percent) while 31 teachers (50percent) said that the class can be good if it was interactive and the student participation, 13 teachers (20.96percent) said about reducing the class strength to thirty students, reducing the syllabus and providing physical resources like recording room, ICT facilities. 11 teachers (17.74percent) said that the classroom should be disciplined and silent and calm for the completion of the syllabus.

Student responses: Responses were collected from 65 students regarding the method of teaching used in teaching learning process. Out of 65 students, 51 students described why exactly they like to study certain subjects in the school. The responses gave the sense of the good learning environment that the teacher taught with, either with their personal attributes

or the teaching methods that they used to make the teaching learning better. The students named different subjects that they like to study like Mathematics, English, hindi, Sanskrit, ScienceandSocial Science, each student mentioned the reason for which they liked to learn a particular subject in the school.

Total 41 students(63.07percent) said that they liked to learn subjects where the teacher brings extra information, asks questions and allows them to ask questions, reads each and every page and explain the chapter was very long, involves them discussion, does each and every step of a mathematical problem or numerical on board, explains and gives proper points to understand, gives less activities and explain the meaning well, interacts with them, allowed them to express their ideas, students also said that they liked to learn in the class when the teachers crack some jokes and keep the environment light and friendly. However, 3 students(4.61percent) said that they like to learn the subjects where the teacher connects the topic with real life examples , 2 students(3.07percent) said that they like to learn in the class where the teachers say stories to explain the topic, 3 students(4.61percent) said they liked to study a subject because the teacher used PowerPoint presentation and images and photos to teach the subject , 1 student(1.53percent) said that he liked to study biology subject because the teacher made us to imagine the things, another student liked to study Mathematics because the teacher used puzzles to explain each concept. The above analysis shows that there were total forty seven students (72.30percent) who just liked to learn a subject because the teacher gave real life examples or told a story or made them to imagine or just solved step by step the Mathematical problems. This shows that student to study a subject not if the teacher uses big aids or activities but they like when the topic was connected to various examples and when they were also allowed to interact and discuss the topic in the class. However this indicates that the things that the teachers highlighted as taught in training like creative teaching , use of activities etc was hardly utilized in the class room. Further classroom observations were also done to find out the classroom environment.

Analysis of Classroom observations: Total 53 classroom were observed, in which 20 were Scienceclasses, 11 were mathematics class, 14 were language classes and 8 were Social Scienceclass. Though there was no much innovation in the ways of teaching but there were

some things which made the class interactive and some classes were totally governed by the traditional chalk and talk method or only the lecture method.

Out of 11 mathematics classes, the number of aspects observed in each classroom were considered and in one class more than one aspect was observed so the total number of aspects observe was more than the total number of classes observed. The total aspects observed were 17. In 8 classes (15.09 percent) the teacher used problem solving, while in 5 classes (9.43percent) the students were allowed to share their doubts and to calculate and speak the answers, in 2 classes (3.77 percent) the paper folding and cutting activities were conducted the teacher demonstrated the activity and then the students had to do, the students could also do the activity as per the instructions given and stick and submit the activity book for evaluation. However out of the 11 mathematics class only one class was there in which the component of evaluation could be observed, the teacher was discussing the solution of the sums which majority of the students calculated wrong, but she also asked the students who failed to raise the hands and one student who scored the least was told that " you have been able to solve nothing, so think how you will improve yourself in the next test". This feedback on evaluation of the papers for the low scorers in front of the entire class was not desirable as per the norms of CCE.

Out of the 20 Scienceclasses, in 8 classes(15.09percent) the teacher used lecture method, questioning and discussion and organized the points appropriately, but in 6 classes(11.32percent) though the lecture method was used along with examples they were not explained properly and not organized well, also the explanation of a chemical reaction which was demonstrated on the previous day was being given which was not intelligible to the students but they were not allowed to ask the doubts also. While in the remaining three classes(5.66percent), either the teacher was busy filling the evaluation sheet , or checking the notebooks or was discussing the answers of the questions which the students had not written properly in the test.

Out of the 14 language classes 6 classes(11.32percent) were having the formative assessment activity in form of role play and debate, while the students did the role play the teacher gave feedback based on some criteria but not to all the students , but most of the times no feedback was given. In the 7 classes(13.20percent) the students were asked to read the text or recite the versus of the poem and the teacher explained the meaning and also

helped the student while he/she read wrong or was not able to pronounce properly, thus the speaking skills were exhibited were enhanced and the explanation was also seen. In 1 class(1.88percent) the teacher discussed the question and answers related to the chapter and in 2 classes(3.77percent) the teachers did model reading and explained the topic by relating it to the real life examples.

Out of the 8 Social Scienceclasses 5 classes (9.43percent) used lecture method cum discussion for explaining various topics , out of these 5 only in one class the explanation was not as per the level of the students it varied so much that the students hardly paid attention to the explanation. In one class (1.88percent) there was map marking activity, but the teacher did not teach the students map marking just asked them to do it looking into the textbook.

The above analysis can be interpreted as follows :

Out of 53 classes , in 28 classes(52.83percent) the teacher used different methods like demonstration of Mathematics paper folding activity, problem solving, allowing the students to share their doubts, to calculate and speak the answers, lecture method, questioning, discussion, explanation with well organized points, allowing the students to read the text or recite the versus of the poem, helping the student read correctly, lecture method cum discussion for explaining various topics. So most of the teachers used the teacher centered methods but ensured student participation through allowing them to raise their doubt and share their ideas while discussion. Almost similar response was expressed by the students forty seven students (72.30percent) who liked to learn different subjects because their teacher brought extra information, told stories , asks questions and allows them to ask questions, reads each and every page and explain the chapter was very long, involves them discussion, does each and every step of a mathematical problem or numerical on board, explained the points properly, gives less activities and explain the meaning well, interacted with them, allowed them to express their ideas and cracked some jokes to keep the environment light and friendly. While 50percent of the teachers favoured interactive class room environment were in favour of having a student centered environment for syllabus completion. The 52.83percent classroom observation aspects and the 50percent teachers responses were in alignment to the explain that interactive classroom exists in 50percent of the classrooms. But the 72.30 percent student responses

of having a teacher who would crack jokes and allow them to ask their doubts and share their ideas and the need for the teacher to bring extra information, explain each step and explain all the points seems to be fulfilled 50 percent of the classes and 30percent classes don't fulfil that need of theirs.

The 10.76percent students responses reveal that studentsliked to learn a subject because the teacher gave real life examples or told a story or made them to imagine or just solved step by step the Mathematical problems, such a practice was seen only in 2 class room observation (3.77 percent) the teachers did model reading and explained the topic by relating it to the real life examples. The 10.76percent student responses and 3.77percent classroom observations aspects reveal that only few students(10.76percent) could learn from the teachers who connected the real life with the topics of study.

Out of 53 classes observed 12 classes(22.64 percent) were such where teacher used lecture method and also did not organize the teaching points properly as per the level of the students and tried to explain a chemical reaction shown on the previous day theoretically which was totally not helping students to understand, scolded the students when they tried to ask their doubts and just asked the students to do map marking looking into the text without any demonstration. Total 17.74percent teacher responses reveal that they favoured silent and disciplined class room for syllabus completion. Though the percentage of teachers who favoured disciplined class and the percentage of aspects seen in the classroom observation were not in alignment, still they werenear by and it can be considered that almost 25percent classes teachers like only teacher centered classroom environment for completion of the syllabus and since their focus was only completion of the syllabus they hardly bother to organize the points well and scold the students if they try to raise their doubts.

Out of 53 class room observation 3 classes(5.66percent) were such which had component of evaluation, the teachers discussed the answers which were wrongly written answers or about the mistakes done by majority of the students, thus it was evident that such discussion would help in giving feedback to the students for improving their learning for the next test. But one of the teachers also asked the failed students to raise their hands and one student who scored the least was told that " you have been able to solve nothing, so think how you will improve yourself in the next test", such feedback after evaluation of

the papers of low scorers in front of the entire class was not desirable as per the norms of CCE. While there were 6 classes(11.32percent) where role play and debate were being conducted for formative assessment activity, but most of the students were not given feedback. So it can be said that verbal feedback 6.25percent times was given in an undesirable manner and 37.5percent times the feedback was not given though there was a scope to give the feedback.

By analyzing the teachers responses, the principal responses, students responses and by analysis of classroom observation it can be seen that the teachers were trained for different activities, but the principal responses indicate that no much change in the teaching methods and most of the students responses indicate that the main teaching strategies used to make a good environment for learning was to make the environment light using some jokes or letting the students interact in the class through questioning and engaging them in discussion. Total 10 principals(71.42percent) principals did not indicate the changes in the teaching learning process after the teachers were trained but were more focused on seeing how the teacher organize the activities for formative assessment and how they evaluate and then make it as an evidence rather than improvement in the teaching learning process.

Thus it can be interpreted that there was no much change in the learning environment being created in the classroom due to the teaching strategies and also it seems that the creative teaching strategies that seven teachers out of 16 teachers(11.29percent) who underwent more than 3 trainings were mentioning was not at all seen in any of the classroom observation or else they might be trained to do so but the teachers didn't actually implement those strategies. However it can be seen that the evaluation practices students said that different FA activities were given for evaluating them, but most of them 38.46percent students they were not given criteria based feedback. So it can be said that the learning environment in 50percent classes have become a bit different with the use of discussion, student interaction by asking questions, and organised points for the completion of the syllabus. But in 25 classrooms(47.16 percent) the lecture method with teacher centered approach was used which also involves scolding and using undesirable language by the teachers.Paper folding activities was also seen only in 2 classes out of 53 classes(3.77percent) instances and role play, Mathematics group activity and debate was

also conducted in 6 classes out of 53(11.32 percent) instances for the sake of formative assessment and criteria based feedback was also not given.

Also the teacher responses when asked about modifying the teaching learning experiences in case of learning difficulty revealed that only 3 teachers (4.83percent) out of 62 teachers used the activity to explain something in Scienceor used the objects to teach mensuration and only 7 teachers(11.29percent) used smart class to explain French revolution and euclids axioms, thus the teachers mindset to use something new to modify the teaching learning strategy has arised only in 16.03percent teachers.

So the overall scenario, that emerges from the teachers responses, students responses and the classroom observations was that training has made an impact of changing the teaching learning strategy from traditional method of reading the text to lecture cum discussion and involvement of the students through asking questions, allowing them to read or recite, or just citing some jokes to keep the environment friendly, but no drastic change has come, the principals were also interested in getting the evaluation done with proper evidences and not much bothered about the training and enhancement of the teaching skills, also CBSE was least bothered for improving the teaching learning process hence it provides paid training to teachers hence the modification of the teaching learning process and modification of teaching environment was very slow.

4.6. Analysis & Interpretation of Orientation & Feedback given to parents

Parents were also one of the pillars on which the CCE scheme of evaluation, aimed at seeking support for the child's overall development. But since it was new system of evaluation process without proper and frequent orientation to the system it was difficult to support in this process.

So the teachers and parents were asked about the orientation given about CCE, frequency of CCE orientation and the aspects of orientation. The data sources for this objective were the teachers ,principals and the parents responses. The aspects which were analysed under this objective were frequency of orientation about CCE and its aspects ; regularity in feedback about the student's scholastic and co-scholastic performance ; mode of

feedback for parents through PTM/email/ sms /phone call / note in almanac ; quality of feedback given to Parents about the student; role of PTA.

Frequency of orientation about CCE and its aspects

Teacher responses: Out of 62 teachers, 30 teachers (48.38percent) said that the parents were oriented every year when the academic year began, while 10 teachers (16.12percent) said that the parents were explained about CCE when it began in 2009, later no orientation was given. While 22 teachers (35.48percent) said that no orientation for CCE was given to parents about its aspects. The 30 teachers who said that the parents were oriented every year, said that the aspects of orientation program were communicating the school norms, code of conduct for the students in the school, board demands, marking pattern of CCE, PSA(problem solving ability),ASL(assessment of speaking and listening) and VBQ(value based questions), tools of assessment methods, grading system, weight age of scholastic and co-scholastic, importance of formative assessments, respective weightage of FA and SA.

Parents response: Similar number of parents, 30 parents (46.15percent) said that orientation for CCE was given every year, while 10 parents (15.38percent) said that it was given only when CCE started after that it was not given. While 25 parents (38.46percent) said that no orientation was given at all. The 10 parents who were orientated only once when the CCE started were told about the general guidelines of CCE as formative assessment and summative assessment and its grading pattern and weightage in the final result while those 30 parents who received orientation every year were told about scholastics, co-scholastics, co-curricular, formative assessment and summative assessments the marking scheme and the grading pattern etc.

The above analysis reveal the following points

Total 46.15percent of the parent responses and 48.38percent teacher responses said that the parents were given orientation every year and the aspects of orientation were scholastics, co-scholastics, co-curricular, formative assessment and summative assessments and the marking scheme and the grading pattern and importance of formative assessments. So it can be said that 46.15percent parents were oriented every year about the various aspects of CCE.

Total 38.46percent parent responses and 35.48percent similar number of teachers expressed the same. The number of teacher responses and parent responses both were almost same, so it confirms that 38.46percent parents were never oriented about CCE. The aim of CCE was overall development of the students and for that efforts has to be by parents and teachers both at home and school respectively. So if the parents were not oriented about actual purpose of CCE then no much change would be there in the child's development, and the actual purpose of CCE was defeated.

Total 15.38 percent parents said that it was given only when CCE started after that it was not given and same was said by 10 teachers (16.12percent) who said that the parents were explained about CCE when it began in 2009, later no orientation was given. Since the number of teacher responses and parent responses were similar, it can be interpreted that 15.385 parents were given orientation about CCE only once eight years, that too when the CCE just started. After that there had been many new changes like introduction of HOTs questions, VBQs. Earlier for one formative assessment one group activity, one individual activity and one pen paper test wasconducted and later it was changed to one activity and one pen paper test for one formative assessment. All these changes were to be communicated to the parents.

Regularity in feedback about the student's scholastic and co-scholastic performance

If the child's learning has to be constantly improved there has to be a collaborative effort at home and school front both. Regular feedback to the parents about the students' performance in scholastic as well as the co-scholastics will help them help their children to perform well. For this itwas necessary that the teachers not only discuss the result of the students but also discuss the learning habits of the student with the parents and give some suggestions to improve his/her study habits and improve the grasping and interest in these. For this frequent teacher parent interaction was important to share about the child's interests in learning different subjects and co-curricular activities.

Teacher Responses: It can be seen from the teachers response that out of 62 teachers, 27 teachers (43.54percent) said that four PTMs were conducted, one each after FA1 and FA3 and after SA1 and SA2. Total 15 teachers (24.19percent) said that two PTM were conducted in a year after SA exams, two teachers (3.22percent) said that six PTMs were conducted; four teachers (6.45percent) said that five PTMs were conducted in a year. One

teacher (1.61percent) said that one Saturday in every month, two teachers (3.22percent) said that every Saturday there was a PTM except 2nd Saturday, five teachers (8.06percent) said that 3PTMs in a year. One teacher (1.61percent) said that the result was sent through email. Five teachers (8.06percent) said that no response was given.

Out of 62 teachers, 20 teachers (32.25percent) said that if the parents have to meet other than PTM then they have to take appointment through a note in almanac. Total 18 teachers(29.03percent) said that they met the parents on Saturdays as per the timings given in the almanac or after the school gets over or during stay back days; 22 teachers (35.48percent) said that the parents can come any time to the school and if the teacher was free they will meet if the parents want to meet. Two teachers (3.22percent) said that they don't meet other than PTM day.

Table 4.15 Frequency of PTMs

Number of teacher responses	Timings of the meeting	Number of PTMs in a year
27 teachers (43.54percent)	One each after FA1 and FA3 and after SA1 and SA2	four PTMs
15 teachers (24.19percent)	One each after each SA exams	two PTM
two teachers (3.22percent)	One meeting each after four Formatives and one each after each SA exam.	six PTMs
Four teachers (6.45percent)	One after FA1,FA2,FA3 and after SA1 and SA2	five PTMs
One teacher (1.61percent)	One Saturday in every month	Total around 8 to 10 meetings
two teachers (3.22percent)	Every Saturday except 2nd Saturday	Around 24 meetings
Five teachers (8.06percent)	One in the beginning of the year and one each at the end of each SA exam.	3PTMs in a year
One teacher (1.61percent)	Result was sent through email	No PTM
Five teachers		No response

(8.06percent)		

Parent Responses: Out of 65 parents, 29 (44.61percent) said that they had four PTMs in a year 25(38.46percent) said that they have only two PTMs in a year and 11 parents(16.92percent) said that they had 6 PTMs in a year.

Apart from PTM 16 parents(24.61percent) said that they could meet the teachers after taking appointment through a note in the almanac, 20 parents(30.76percent) could meet the teachers any day after the school got over; 29 parents (44.61percent)could meet the teachers every Saturday except 2nd Saturday at the time given in the almanac.

The above analysis reveal the following points

Total 43.54percent teachers and 44.61percent parents said that there were atleast two PTMs in a semester means four PTMs in a year, one each after the completion of both the formative assessment in a semester and one after the summative in a semester. Both the numeric value given by the teachers and parents confirm that there were four PTMs in a year. Thus it can be said that 44.61percent parents were given feedback twice in a semester and four times in a year. But if continuous assessment and improvement has to be ensured then feedback should be after the completion of each formative assessment, if the feedback was given to the parents they might help their child to improve.

Total 3.22percent teachers said that there were six PTMs in a year. These two teachers have not conveyed whether the six meetings were conducted after each FA exam and each SA exams. FA4 was just having ASL(Assessment of Speaking and Listening) and PBA (Problem Solving Ability) for which the papers came from the board, while in Social Scienceitwas OTBA (Open Text Book Assessment) for which the assessment was done by the board, so the school may not give a feedback. So the six meetings might be one in the beginning of the year and five during the year like after FA1,FA2, FA3, SA1 and SA2. Similar, responses was given by four other teachers so adding both the responses the total teacher respondents was now six (9.67percent). Also there were 16.92percent parents who confirmed that there were six PTM in a year. Since almost 50 percent teacher responses compared to the parent responses confirm that there were six PTMs, it can be said that 16.92 percent parents had six PTMs in a year. However

constant meet of the teachers and parents would help in discussing feedback about learning of the students.

Total 24.19percent teachers said that two PTMs one each after each SA exams were conducted. There were 8.06percent teachers who said that there were three PTMs in a year, one in the beginning of the year and one each at the end of each SA exam. If the one in the beginning of the year was considered as an orientation meeting then it can be said that there were only two PTMs for conveying the students' progress, so these five responses can be added to the above teacher responses. So total 32.25percent teacher responses confirm that there were two PTMs in a year one each at the end of each Summative exams.While 38.46percent parents said that there were only two PTMs in a year. The purpose of FA exams was to give feedback about the students' progress, so if the feedback was given to parents only after the summative exams then parents will not be able to help the students in improving their learning. So 38.46 percent parents do not get feedback of their child for formative assessments hence the improvement in learning cannot be addressed by the parents.

Total 1.61percent teacher said that one PTM on a Saturday in every month Total around 8 to 10 meetings in a year. But none of the parent response convey the same. So this response cannot be considered. None of the parent responses support this hence this cannot be considered for the findings of the study.

Total 3.22 percent teachers said that every Saturday except 2nd Saturday and 44.61percent parent said the same that they could meet the teachers every Saturday except 2nd Saturday at the time given in the almanac. The number of teacher responses compared to the parent responses was less but since parents have said that the timings were fixed and given in the almanac, it might be happening, so it can be considered that 44.61 percent parents can meet the teachers at the given time.

Apart from the PTMs 30.76percent parents were also allowed to meet the teachers after the school and 24.61percent parents said that they could meet after taking an appointment through a note in the almanac. This55.37 parents could meet the teachers even if it was not a PTM day, to discuss about child's learning

Total 1.61percent teacher said no PTM was held but none of the parents response confirmed it so this response cannot be considered.

Mode of feedback for parents through PTM/email/ sms /phone call / note in almanac

Teacher responses: When the teachers were asked how they gave feedback to the parents on the scholastic aspects of the students 54 teachers(87.09percent) said that the parents were informed about the students scholastic performance through PTM and eight teachers (12.90percent)did not tell how the feedback was given to the parents.

Along with PTMs , five teachers(8.06percent) also sent notes through diary , three teachers send message through e-mails, four (6.45percent)used application called Aplane to send messages and four teachers(6.45percent) sent the worksheets and class test to make the parents aware about the scholastic performance of the students.

Teacher responses: Teachers were also asked about the feedback for co-scholastics. Out of 62 teachers, 39 teachers (62.90percent) communicated the co-scholastic feedback to parents through PTM during the report reading. Six teachers(9.67percent) said that they could have PTM every Saturday except on 2nd Saturday especially for the students having some behavioral problems and low scorers. While total 17 teachers (27.41percent) did not respond about the about the feedback given about co-scholastics, probably they did not give much importance to co-scholastics.

Out of 39, eight teachers who gave feedback for co-scholastics during PTMs also gave a phone call to the parents who misbehave in the class; nine teachers also sent the diary notes to inform the parents about the undesirable behaviour of the student; three teachers said that they displayed the co-scholastic activities on the school website for the parents to see; two teachers said that giving certificates to the ones who won in co-scholastics was also a feedback. While three teachers said that the co-scholastics was communicated exclusively through e-mails in form of the grades that the student got and the final grade was displayed in the report card. While one teacher used the application called Aplane to communicate the grades in co-scholastics to the parents.

Parentsresponses: All the 65 parents said that the purpose of conducting PTM was to show the report card and the answer sheets of different subject. Total 10 parents(15.38percent) said that the formative or summative papers and the report card were shown and some behavioural issues were discussed; 31 parents(47.69percent) said

that the formative answer sheets were sent home for parents to see and only the summative papers were shown in the PTM and then some two or three observations about the child were spoken, which hardly gave any feedback about child's weak performance in a subject and also about co-scholastics, they said that the real academic feedback was given in the tuition classes rather than from the school. 15 parents(23.07percent) said that the report card was shown in the PTM and the child's attributes were discussed only if itwas asked by the parents and that feedback was also general, no specific suggestion wasgiven for improving the child's behaviour or child's achievement. Nine parents(13.84percent) did not respond about the feedback given on co-scholastics by the teacher to them .

The above analysis reveal the followingpoints:

It can be concluded that 87.09percent teachers gave feedback on the scholastic achievement of the students through PTM and other means like diary notes, emails and phone applications, the feedback was only expressing the grade that the child has gained or the marks that the child has gained no scopes of improvement or suggestion on the improving the child's achievement was given , this was confirmed by the 100percent parents responses who have expressed that name of feedback for scholastic achievement only the answer sheets were shown and report card was shown. Thus the teacher themselves have not shifted their focus from marks and grades to improving students learning , so were unable to provide suggestions for improvement of students ' learning. Thus it can be said that all the 65 parents were informed about the scholastic performance through PTMs.

Total 62.90 percent teachers said that the co-scholastics were communicated during the PTMs and 9.67 percent teachers said that every Saturday the PTMs were held and the co-scholastics were expressed in those PTMs, so adding both the above mentioned responses it can be said that 72.58percentteachers communicated the co-scholastics through PTM. Total 47.69 percent parents said that the answer sheets were shown and then some two or three behavioural observations about the child was spoken in the PTM similarly 15.38 percent parents told that the report card was shown and the few behavioural observations were shared by the teachers in the PTMs, so it can be said that total 63.07percent parents were communicated about the behavioral aspects of the child

in the PTM. However the number of teacher responses and the parent responses were almost nearby so it can be said that atleast 63.07percent parents were told about the behavioural aspects in the PTMs along with report reading.

Total 1.61percent, 12.90percent, 14.51percent, 4.83percent, 4.83 percent, teachers said that Mobile application, telephonic information, diary notes, co-scholastic activities on the school website and emails were used to communicate the feedback about co-scholastics of the students to the parents. But none of the parents revealed any such means of communicating the co-scholastics other than PTM. So it implies that major feedback on co-scholastics was given through the PTMs only.

If the type of feedback for co-scholastics was considered then the 63.07percent parents said that only few observations of behavioural aspects were spoken by the teacher after giving the report card , no other feedback about any qualities or suggestions to improve the co-scholastics were given. Moreover, 23.07 percent parents said that the report card was shown in the PTM and the child's attributes were discussed only if it was asked by the parents. That feedback was also general, not specific for improving the child's behaviour or child's co-scholastic performance. So it can be said that all 86.14 percent parents were given behavioural description as co-scholastic feedback of the students, so the actual aim of overall development was not considered because co-scholastic was not only the behavioural aspects it also includes the co-curricular activities. While nine parents did not receive even receive feedback for behavioural aspects also.

Quality of feedback given to Parents about the student

The quality of feedback can be ensured with purpose of PTMs mentioned by teachers and principals. Face to face communication was more direct than any other mode of communication, so if majority of the teachers and parents have said that PTM was used for giving feedback to parents about child's performance it would be more effective in terms of making the parents understand that what was the improvement needed in the student in scholastic and co-scholastic areas. To know the actual purpose of the feedback the teachers' response, parent responses and principal responses were elicited.

Teachers' response: The purpose of PTM mentioned by 37 teachers (59.67percent)was to discuss the academic performance of the students with the parents. Total 16 teachers (25.80percent) said that purpose of PTM was to discuss about the result of scholastic

performance and also to discuss about the behavioral aspects and co-curricular activities. While two teachers (3.22percent) said that the co-curricular and scholastic and co-scholastic were given feedback about the students and also were communicated through the email to parents. Total seven teachers (11.29percent) did not respond about the purpose of PTM.

Parents response: Out of 65 parents, total 10 parents (15.38percent) said that the formative or summative papers and the report card was shown and some behavioral issues were discussed. While 31 parents (47.69percent) said that the formative answer sheets were sent home for parents to see and the summative papers were shown in the PTM and then some two or three observations about the child were discussed, which doesn't give proper feedback about child's weak performance in a subject and also about co-scholastics, the real academic feedback was given in the tuition classes rather than from the school. Adding both the parent responses, it can be said that 41 parents(63.07percent) said that the report card was shown and some two or three behavioural aspects about the student was spoken which were not always correct about the student. Total 15 parents (23.07percent) said that the report card was show in the PTM and the child's attributes were discussed only if it was asked for by the parents and that feedback was also general, no specific suggestion was given for improving the child. While Nine parents did not reply.

Principal response: Out of 14 principals, two principals(14.28percent) said that the report card was shown and behavioral issues if any were discussed. While the remaining 12 principals (85.71percent) said that the PTM was to show the answer sheets and show the report card of the students to the parents.

The above analysis shows the following points

If the above responses of the teachers parents and principal were observed it can be said that59.67percentteacher responses, 63.07percent parents responses an 14.28percent principal responses show that the purpose of PTM was to show the report card and to discuss some behavioral issues if any. It can be said that the report card was shown and some two or three behavioural aspects about the student were spoken which were not always correct about the student.

Total 85.71percent principals said that the purpose of PTM was to show the answer

sheets and show the report card of the students and reflecting on behavioural aspects were really not the concern while giving feedback during PTMs. While 47.69percent parent responses show that the behavior related feedback given was also not appropriate to the child, sometimes common feedback to the parents and 23.07percent parents said that the behavioural aspects or co-curricular aspects related feedback was given only if the parent asks. Both the parents responses shows the disinterest of the teachers to given feedback related to behaviour, thus adding up both the responses it can be said that 70.76percent parents feel appropriate feedback related to student behaviour were not given by the teachers. So both 70.76 percent parents and the 85.71 percent principal responses show that the teacher just gives the report card and completes her/his task and was least bothered about giving feedback on the students behavioural aspects or the other co-scholastic aspects.

Role of PTA

CBSE has suggested making of a PTA which would support the schools in dealing with the issues arising in between the teachers and parents and also to extent academic help whenever and wherever needed, so it becomes imperative to find the role of PTA in CBSE schools and whether it has any special role to play in CCE impelementation.

Teacher responses : Total 54 teachers (87.09percent) said that there was no PTA in the school. While eight teachers (12.90percent) said that there was functional PTA in the school which helped in organizing the annual meet and sports meet and also gave some speeches on social issues and if there were some issues from parents side then the PTA members communicate to the concerned teacher or the principal directly.

Parent responses: Total six parents(9.23percent) said that the PTA was there but was not much active in the school where their child studied. While 10 parents(15.38percent) said that the PTA functioned to resolve the problems between parents and teachers and bridge the gap and also took care of canteen hygiene and suggested GPS system in school bus. The remaining 49 parents (75.38percent) said that there was not PTA in the school.

Principal responses: Only three principals (4.61percent) said that they had PTA in the school and they contributed to organization of annual meet, sports day and conveyed the issues of other parents to the principal or the concerned teacher to PTA.

The above analysis shows that total 15.38percent parent responses , 12.90percent teacher responses and 4.61percent principals responses confirm that PTA was active only in few schools and since the function of PTA was to bridge the gap between the parents and the teachers if some problem was there it becomes functional, otherwise the PTA members just helped in general organization of sport events, annual function and maintaining canteen hygiene but there was no academic contribution from PTA. Total 9.23percent parents could access to a PTA but it was not much active in getting their issues resolved with respect to their child and school related things.

4.7 Analysis& Interpretation of Provisions for participation in co-curricular activities and the assessment of those activities

The co-scholastic aspects has one section called the co-curricular activities which was to be assessed under two sections:

Section I had four sub sections 1. Literary & Creative Skills 2. Scientific Skills 3. Aesthetic skills 4. Performing arts, Eco club and health and wellness club

Out of these four aspects only two were to be assessed.

Section II was called the Health and Physical Education had eight subsections:

1. Sports/ Indigenous sports (Kho-Kho etc.)
2. NCC / NSS
3. Scouting and Guiding
4. Swimming
5. Gymnastics
6. Yoga
7. First Aid
8. Gardening/Shramdaan

It was clear from the above that students had to be evaluated on any two aspects from each section. CBSE suggested to have clubs to include these aspects.

Out of total two sections in co-curriuclaractivitie two each from each section was to be assessed. So total four aspects should be assessed and offered to the students.

The data sources for this objective were eight co-curruiuclar teachers with who the inestigator had discussed about the orientation given to them about CCE and the aspects

to be evaluated and the assessment practices they conducted the other data source were students.

The aspects under this objective were provisions to students for enhancing the different skills through co-curriular activities ,the feedback given and the assessment of these activities.

Provisions for Scienctific /Aesthetic /Literary Skills/ Eco & Wellness Club

The activities for developing various skills could be either directly provided or through various clubs as per the guidelines of CBSE.

Scientific skills: the suggested activities by CBSE, for developing scientific skills wereScienceClub, Projects, Mathematics Club, ScienceQuiz, ScienceExhibition and ScienceandMathematics Olympiad. However since the assessment used by the teachers were also written together it was necessary to see the assessment criteria given by CBSE for the assessment of scientific skills in the CCE manual. The criteria given for assessment of scientific skills in CBSE manual were : participation in school level, state level and national level Sciencecompetitions; initiative taken for participating and conducting Sciencerelated activities; help organize different events; well informed about the topics of study; keen observations; mature deductions; display of experimental skills; ability to apply Sciencein the everyday context; collaborative ability in a group; inspire others also to involve in Sciencerelated works; display scientific temperament

The following were the responses of the teachers regarding, the activities they felt enhanced the scientific skills and the criteria used for assessment of those activities.

The activities conducted for the enhancement of scientific skills would be either in the class, through the club activities or through the CCA activities like conducting different house activities and competitions. Out of 62 teachers 21 teachers(33.87percent) felt that activities like project, Sciencequiz, model making for Scienceexhibitions, power point presentations, laboratory activities , problem solving, Sudoku solving and puzzle solving, seminar presentation and answering the questions in the Scienceclassrooms enhanced the scientific skills. While 41 teachers(66.12percent) did not respond about the enhancement and assessment of scientific skills. The no response might be either because they were not Scienceor Mathematics teachers or because they lack awareness about the various activities conducted as club activities or the competitions.

Teachers responses : Three teachers out of 21 teachers(14.28percent) said that ScienceProjects enhanced the scientific skills and the assessment criteria used were Concept clarity and presentation skills. The teacher could have used the criteria like the applicability of scientific principles shown in the project; the deductions made in the project and the analysis and organizing abilities expressed in the project as given by the CCE teachers manual.

Five teachers out of 21 teachers(23.80percent) said that ScienceQuiz helped in enhancing the scientific skills, the assessment, only three teachers said the criteria of assessment like Correctness, awareness. The criteria for assessment of the quiz seems to be correct but the teachers could have added the applicability of scientific concepts or awareness about the scientific concepts and the collaboration shown by the students with his team mate.

Total two teachers out of 21(9.52percent) said thatScienceModel making enhanced the scientific skills but no criteria of evaluation were mentioned. It was seems that the teachers did not assess the model made based on any criteria, they could have used the criteria like initiative take by the student to make the model, the experimental skills displayed during the model making and the scientific principles applied while making the model, assessing a model without criteria seems an unscientific approach towards assessment itself.

One teacher out of 21(4.76percent) said that the power point presentation that they made on historical aspects of algebra improved their scientific skills, the assessment criteria used were originality , topic appropriateness, language used, imagination and presentation. The criteria used to assess the PowerPoint presentation seems to be appropriate but topic could be a little broader in which the students could be asked to establish a connect between the historical aspects and the present algebra so that they would have used their critical and analytical thinking too.

Six teachers(28.57percent) said that the Sciencelab activities helped in improving the scientific skills, the assessment criteria mentioned were co-ordination of materials in the laboratory. The lab activities could also be observed for seeing the scientific skills like application of scientific principles, accuracy of measuring the materials or mixing them, the keen observation done to take the readings the deductions made after getting the results.

One teacher(4.76percent) said that the problem solving, Sudoku solving and puzzle solving enhanced the scientific skills but no criteria of assessment were given. The teacher could have assessed the problem solving /puzzle solving sing criteria like organizing abilities shown while step by step solving the problem or puzzle, keen observations made to find the hints given in thequestion to solve the problem.

One teacher (4.76percent) said that Seminar on Sciencetopic enhanced the scientific skills but the criteria of evaluation were not mentioned. The teacher could have used the criteria like organization of content, the awareness about the topic shown by the student, the ability to give examples related to daily life could be used as criteria of assessment along with the fluency and presentation skills exhibited.

Two teachers (9.52percent) said that the response to the questions asked in the Scienceclassroom helped in enhancing the scientific skills and the assessment was done on the basis criteria like Imaginative ability, application of concepts taught. This criterion seems appropriate for assessing the scientific skills of the students, but since the questions were during the classroom teaching learning process it was necessary for the teachers to take note of the scientific skills exhibited by the students immediately which seems difficult.

Out of these 21 teachers majority of the teachers were Scienceand mathematics teachers and six teachers did not mention the criteria for assessment which shows that some of the teachers conducted the activities without keeping an objective of assessing any skills. Nonetheless, providing the opportunities in the form of activities helps the child to develop the scientific skills.

Student responses: The students were also asked about the various club activities an competitions conducted. Out of 65 students, 43 students responses (66.15percent) said that they had house activities or competitions like Sciencequiz, Mathematics quiz, Scienceexhibitions chemistry quiz, puzzle solving and panel discussion in ScienceandMathematics. Out of 46, three students (6.97percent) said that they had Scienceproject, 21 (48.83percent)said that they had Sciencequiz, eleven(25.58percent) said that they had model making, one(2.32percent) said that they had power point presentation. Four students (9.30percent) said that they had lab activity, four students (9.30percent) said that they had innovative Scienceclub, four students(9.30percent) said

that they had Problem solving and puzzle solving and Sudoku, one(2.32percent) said that they had seminar.

Comparing the analysis of the responses of students and teachers following things can be interpreted

66.12percent teachers and the 73.84percent students it seems the students have enlisted variety of activities(Sciencequiz, Scienceproject, model making, problem solving and puzzle making) that was done in the Scienceclub or in the Scienceclass , how the low response of the teachers indicate that either the teachers were not aware that these activities enhance the scientific skills and they conduct them only for the sake of completion of the CCA activities or the club activities. Hence the opportunities given to enhance the scientific skills were many but the evaluation was not objectively done.

Total 32.30 percentstudent responses revealed that they had Sciencequiz, 21 teachers (100percent) said that ScienceQuiz. Since the number of student responses were almost equal to the teacher responses, it can be said that 48.83percent students were given Sciencequiz as an activity to enhance the scientific skills. Three teachers (4.83percent) said the criteria of assessment like Correctness, awareness. 6.15percentstudents said that they had lab activity and 9.67percent teachers said that the Sciencelab activities helped in improving the scientific skills. The number of responses of the students who said that lab activity was done during their Scienceclub periods and the number of teachers who said the same was not varying much so it can be said that 6.15 percent students were given Sciencerelated activities in the scientific clubs.

6.15 percent student responses said that they had Problem solving and puzzle solving and Sudoku in mathematics club and 1.61percent teacher responses confirmed the same activities for enhancing the mathematical and scientific skills. Since the number of student responses and the teacher responses vary largely, it seems doubtful if really the activity was conducted or not.

1.53percent student response reveal that they had seminar and 1.61percent teacher said that seminar on Sciencetopic enhanced the scientific skills, both the respondents response number was same hence, it can be said that 1.53percent students had seminar on a Sciencetopic in the Scienceclub period for enhancing the scientific skills but the criteria of evaluation were not mentioned. Since the criteria of evaluation were not mentioned it

can be said that the aim was to allow students to conduct a seminar and improve their scientific skills not to assess them.

3.22percent teachers said that the response to the questions asked in the Scienceclassroom helped in enhancing the scientific skills and the assessment was done on the basis criteria like Imaginative ability, application of concepts taught. Responding to the questions asked by the teachers was done by many students and that was done in all the subjects taught in the school, so that cannot be considered as an activity for only enhancing scientific skills.

Total five activities were enlisted by the teachers and that students which helped in enhancing the scientific skills out of which only assessment criteria were given only for four activities which were as follows.

Table 4.16 Assesment criteria for Activities for Scientific skill Enhancement

Name of the activity	Assessment criteria used	Suggestive assessment criteria
ScienceQuiz	Correctness, awareness	applicability of scientific concepts or awareness about the scientific concepts and the collaboration of students with team mate/s
power point presentation on historical aspects of algebra	originality, topic appropriateness, language used, imagination and presentation	Connect established between the present algebra and earlier concepts.
Sciencelab related activities	co-ordination of materials in the laboratory	application of scientific principles, accuracy of measuring the materials or mixing them, the keen observation done to take the readings the deductions made after getting the results

Thus it can be understood that out of five activities mentioned by teachers and students which seems to enhance scientific skills, only three were assessed so other five activities might have been conducted as part of subject activity or in form of inter house competitions. So it can be said that eight activities gave opportunities to the students to enhance their scientific skills but they did not get any feedback for further improvement. The three activities for which the assessment was done was for grading purpose and not for giving criteria based feedback.

The number of teacher responses and the number of teachers who responded was exactly the same as the number of teachers who responded i.e. 21 , this shows that each teacher gave name of only one activity which enhanced the scientific skills, this itself shows the lack of awareness that the teachers have about enhancing the scientific skills and assessment of it.

Literary & Creative Skills: The suggested activities for developing literary and creative skills by CBSE were Debate, Declamation, Creative Writing, Recitation, Drawing, Poster-Making, Slogan Writing, on the spot painting and Theatre. The criteria for assessment of given in the CCE teachers' manual by CBSE were active participation in literary and creative activities at school level, state level, national level and international level; takes initiative in planning debtes , recitation , book clubs, etc; participates as member of student council; shows high degree of awareness about literary skills; ability to appreciate well written/ spoken pieces of prose /poetry/plays; listens interestingly to the read prose/poetry; ability to express ideas/opinions creatively in different forms; displays originality of ideas and opinions; shows good collaborative skills ; ability to work effectively in a group; ability to inspire others and involve schools/ community in different events.

Teachers response: Out of 62 teachers, only 23 (37.09percent) responded about the activities conducted for enhancing literary skills either in the class, in the clubs or as a CCA activity. While 39 teachers(62.90percent) did not respond about the activities done in the class or in the CCA activities or in the club activities

Out of the teachers who responded one teacher (1.61percent) each said that Role play, extempore, jingle writing was used to assess the literary skills but none of the three teachers mentioned the assessment criteria which would help in understanding what kind

of literary skills were observed by the teachers. Teachers could have used the criteria like display of original ideas; ability to express ideas/opinions creatively in different forms; awareness about literary skills as the criteria evaluation.

One teacher (1.61percent)said that poem recitation helped in enhancing the literary skills in children, the assessment criteria mentioned were memorization, pronunciation, confidence, presentation, however pronunciation seems to be the only literary skill being observed the remaining aspects like presentation, confidence and memorization seems to be the general aspects being observed for any oral activity.

There was one teacher (1.61percent) who considered Speaking & listening activity appropriate to enhance the literary skills like appropriate use of Vocabulary skills but other literary assessment criteria were not mentioned by the teacher. Other criteria like listens interestingly to the read prose/poetry; awareness about literary skills could be included in the assessment criteria.

While there was one teacher(1.61percent) each who said that grammar activity, Power point presentation, was given to enhance literary skills.

Two teachers (3.22percent) story writing was given to enhance the literary skills but none of the three teacher gave the evaluation criteria. Here also teacher could have used criteria like displays originality of ideas and opinions; ability to express ideas/opinions creatively in different forms and awareness about literary skills as criteria for assessment.

There were two teachers (3.22percent) each said that essay writing and poetry writing was given to improve the literary skills, but none of the four teachers gave the criteria of evaluation. The teacher could have used the criteria of assessment like displays originality of ideas and opinions; ability to express ideas/opinions creatively in different forms; awareness about literary skills as given in the teachers' manual by CBSE.

One teacher (1.61percent) said that Book reading and writing some views about it was given to the students which might have enhanced the literary skills, the assessment criteria mentioned were Lyrics and display of ideas, out of which the display of ideas seems to be a literary skill but lyrics seems to be unsuitable criteria for this activity.

There were nine teachers(14.51percent) who said that Debate was done to enhance the literary skills, the assessment criteria were display of ideas, vocabulary, rhythm, fluency

pronunciation , presentation, out of this only rhythm seems to be an inappropriate literary skill for this activity remaining criteria seems appropriate.

Students responses: Total 50 students out of 65(76.92percent) responded about the activities related to the literary club or other activities which enhanced the literary skills. The students were not asked directly about the literary skills enhancing activities but they were asked what were the activities conducted in their literary club or what were the other activities or competitions held at school. Out of the activities enlisted by the students the activities which was seemed to be related to literary skill enhancement were considered here. Total 50 students responded but each student gave more than one responses so the total number of responses was 109. Total 31 students responses(47.69percent) said that debate competition was held in English.

Total 19 students (29.23percent) responses said that elocution competition was held. Five student (7.69percent) responses showed that speech giving activity was held at their school; five student responses revealed that street play was being done by them, five response (7.69percent) revealed that they were divided into different groups and were asked to perform a skit. Five student responses (7.69percent) showed that magazine making was also given to them as a group activity in English subject. Total 10 students responses (15.38percent) revealed that their teachers gave them opportunity to participate in extempore. Four responses (6.15percent) revealed that they had role play, five student responses (7.69percent) revealed that their classmates were given opportunity to recite a poem. Five students responses (7.69percent) showed that the teachers asked them to make a power point presentation and present it. Five student responses (7.69percent) revealed that they had a story writing and total 10 student responses (15.38percent) revealed that they were asked to make a poetry.

May be the remaining students did these activities but not in form of a competition but as part of their language curriculum.

The above analysis reveal the following

76.92percent students enlisted the activities conducted under the literary club or as a co-curricular activity and same was done by 37.09percent teacher responses so it can be said that 76.92percent student were given opportunities for enhancing the literary and creative skills through different activities.

14.51percent teachers said that Debate was conducted and 47.69percent students responses revealed the same though the number of teacher responses and student responses vary largely. A considerable number of responses from both the groups have confirmed that debate was conducted so it can be said that 47.69percent students were provided an opportunity to participate in Sciencedebate. Total 1.61percent teacher response said that extempore was conducted, 15.38percent students responses revealed the same . There was large variation in the number of responses so it can be confirmed that 15.38percent students were given the opportunity to participate in extempore. 1.61percent teacher response revealed that role play was conducted as a part of club activity and 6.15percent students responses revealed the same. Since the percentage of both the responses was not varying much it can be said that 6.15percent students were givne role play as club activity.

While 7.69percent student responses showed that speech giving activity was held at their school; five student responses revealed that street play was being done by them, 7.69percent response revealed that they were divided into different groups and were asked to perform a skit. Total 7.69percent student responses showed that magazine making was also given to them as a group activity in English subject and 29.23percent student responses showed that elocution competition were held. But none of the teacher responses confirmed such activities so may be the students were speaking about the activities that were conducted in the last academic year for them. So this cannot be considered as valid finding for this study. 7.69percent student responses revealed that they had a story writing was give to them and 3.22percent teachers response confirmed the same. Since the variation in the numeric value was not large it can be said that 7.69percent students got a chance to write a story on their own.

Total 15.38percent student responses revealed that they were asked to make a poetry same was said by 3.22percent teachers responses so it can be said that 15.38percent students were given opportunity to make a poem on their own.

Out of the 9 activities enlisted by the teachers which enhanced literary skills. Only three activities were assessed namely poem recitation, book reading and writing review and debate. The criteria of assessment used were as follows

Table 4.17. Assesment criteria for Activities for Literary skill Enhancement

Name of the activity	Assessment criteria used	Suggestive assessment criteria
Poem recitation	memorization, pronunciation, confidence, presentation	
Book reading and review writing	Lyrics and display of ideas	Lyrics was written for a song or a poetry so it seems inappropriate rather presentation of comprehended content of the book, sequential arrangement of the events and the simplicity of language used could have been the assessment criteria.
Debate	display of ideas, vocabulary, rhythm, fluency pronunciation , presentation,	Rhythm seems to be inappropriate criteria of assessment, rather the ideas used for rebut could have been the criteria.

It seems that the other nine activities were done as a part of club activities or as a subject activity so they were not assessed. However though the 9 activities gave opportunities to enhance the literary skills or the students but none of the students were given feedback on improving the literary skills, since only three activities were assessed and they were also done for grading purpose the students were not given any feedback on that and the remaining nine activities just provided opportunities no feedback.

Aesthetic skills: The suggested activities for aesthetic skill were music vocal, instrumental, Dance, craft, sculpture, puppetry and folk Art forms. The assessment criteria given were active participation in activities ; taking initiative to plan and drive various creative events like plays, arts competitions , dance music festival celebrating and painting, organization of some event ; reading and showing high degree of awareness;

ability to appreciate prose poetry and plays in all languages; ability to express his liking; expresses keen interest an aptitude towards an art form; applies skills to Perform art forms; displays creative expression and presentation. These criteria of evaluation given by the CBSE in the CCE teachers manual seems generally for all the activities of aesthetic and performing arts activities but for each activity criteria can be drawn like active participation, taking initiation, display of awareness about the activity, expressing the interest and liking, creative expression and presentation.

Teacher responses: Out of 62 teachers, 47 teachers (75.80percent) did not respond to the activities conducted in the class or in the clubs or as CCA activities for enhancement of aesthetic skills. Only 15 teachers gave the names of activities conducted for enhancement of aesthetic skills. Out of the 15 teachers four teachers named more than one activity done for enhancement of aesthetic skills so the total number of teacher responses was 19.

There were three teachers responses (4.83percent) showed that there were rangoli competition which enhanced aesthetic skills, the criteria of assessment given were conceptual understanding and presentation while conceptual understanding plays no role in Rangoli competition. The teacher could have used criteria like : keen interest ; aptitude towards an art form; displays creative expression and presentation; active participation in activities as the criteria of assessment.

One teacher response (1.61percent) revealed that each mentioned about the Poster designing and Collage making, but none of the two teachers mentioned about the criteria of assessment. While there were criteria like display of creative expressions and presentations given in the teacher manual could be used for assessment of poster designing and collage making but that was not done. There were two teachers responses (3.22percent) revealed that students were given opportunities to take part in dance but did not mention about the assessment criteria , these teachers said that the students were assessed on dance by the dance teachers based on the criteria for aesthetic skills mentioned in the CCE teachers manual. While there were two teacher responses(3.22percent) which indicated that the students had regular dance class once in a week where they learnt anyone classical dance forms. Two teacher responses (3.22percent) showed that students had to learn music regularly once in a week in

performing arts club, they were given choice between vocal or instrumental and were taught whichever they selected.

Two teacher responses (3.22percent) showed that the students were given opportunity to participate in drama competition but each child was not assessed for it based on criteria but they were judged so that winners could be announced.While two teacher responses (3.22percent) revealed that the students were given opportunity to participate in painting competition; each child was not assessed for it based on criteria but they were judged so that winners could be announced.As per three teacher responses (4.83percent), craft work, clay model making, making best out of waste was taught in the work experience class once in a fortnight. This gave them an opportunity to express their creativity through and they were assessed based on any criteria, just based on appearance of the final product.

Student responses: Total 36 students enlisted the activities that can be considered as activities for enhancing aesthetic skills, there were some students who gave more than one response so the total number of responses was 75. However the students were not asked about the activities for developed aesthetic skill, they were asked about the activities conducted in the art class, aesthetic club or in the work experience or learnt music and dance on regular basis.

Five student responses (7.69percent) confirmed that collage making was there, Five student responses (7.69percent) confirmed Diya making competition, Five student responses (7.69percent) reveal that Rangoli making was done. Nine student responses(13.84percent) revealed that drama competition was or each child was not assessed for it based on criteria but they were judged so that winners could be announced each child was not assessed for it based on criteria but they were judged so that winners could be announced each child was not assessed for it based on criteria but they were judged so that winners could be announced each child was not assessed for it based on criteria but they were judged so that winners could be announced each child was not assessed for it based on criteria but they were judged so that winners could be announced each child was not assessed for it based on criteria but they were judged so that winners could be announced each child was not assessed for it based on criteria but they were judged so that winners could be announced each child was not assessed for it based on

criteria but they were judged so that winners could be announced oganized. Total 10 student responses (15.38percent) indicated that they had singing competition, while 16 responses (24.61percent) confirmed that there were patriotic dance and group dances competitions. Five student responses(7.69percent) revealed that poster making competition was there. Five student responses (7.69percent) revealed that they were asked to do the mime in their aesthetic club. Six students (8.0percent) response also revealed that painting, craft and clay model making were part of their work experience class. While nine student responses (13.84percent) showed that they had regular dance and music class and they had to choose one among the dance forms offered and one among the music offered in school as per the interest.

The above analysis shows that 7.69percent student responses confirmed that collage making and poster making was there, 1.61percent teacher response revealed that each mentioned about the Poster designing and Collage making. The numeric value of teacher response and student response was not having much variation hence it can be said that 7.69percent students got the opportunity to make collage and make poster and enhance their aesthetic skills.

Total 7.69percent student responses ()reveal that Rangoli making was done in the school and three 4.83percent teachers responses showed that there wasrangoli competition. The wasa variation in the number of teacher responses and student responses, but since the variation was not too large,it can be interpreted that the opportunity for rangoli making was given to the 7.69 percent students.

While 13.84percent student responses revealed that drama competition was there but each child was not assessed for it based on criteria but they were judged so that winners could be announced each child was not assessed. Total 3.22percent teacher responses showed that the students were given opportunity to participate in drama competition. Since the number of teacher responses and students responses do not vary largely it can be said that 13.84percent students were given opportunity to participate in drama competition.

Total 24.61percent student responses confirmed that there were patriotic dance and group dances competitions same was responded by 3.22percent teachers responses . There was large variation in the teacher responses and student responses but it might be possible that since it was a competition many teachers might have forgotten to mention but revealed

that students were given opportunities while enlisting the activities for aesthetic skills related activities. So the number of teachers might be less. Thus it can be interpreted that 24.61percent students had an opportunity to participate in dance competition and enhance their aesthetic skills.

7.69percent student responses revealed that they were asked to do the mime in their aesthetic club but none of the teacher responses confirmed the same, so this might not be considered for counting in the findings of the study.

8 percent students response also revealed that painting, craft, making best out of waste and clay model making were part of their work experience class; 4.83percent teacher responses , also confirmed that craft work, clay model making, making best out of waste was taught in the work experience class once in a fortnight. This gave them an opportunity to express their creativity and they were assessed based on any criteria, just based on appearance of the final product.

While 13.84percent student responses showed that they had regular dance and music class and they had to choose one among the dance forms offered and one among the music offered in school as per the interest; 3.22percent teacher responses indicated regular dance class once in a week where they learnt anyone classical dance forms. While 3.22percent teacher responses showed that students had to learn music regularly once in a week in performing arts club. So it can be interpreted that 13.84percent students got an opportunity to learn dance and music regularly.

Out of 13.84 activities mentioned only 6 activities were conducted on the regular basis i.e. painting, craft, clay modeling, best out of waste in the work experience class and dance and music in the performing arts class the remaining activities were in form of competition. This was available to 8percent and 13.84percent students respectively, this was a small number. Only few students will participate in competitions who were outward or who were motivated by the teachers or parents to do so. Thus all the students will not improve the aesthetic skills.

However only 4.83percent teachers mentioned that the final product of work experience class was counted for assessment.While the other teachers did not mention about any assessment criteria for these activities. Responses was taken from one work experience teacher during the school visits for classroom observation. The teacher said that the

student were graded on the final product made. The criteria used are utility of the article made, the finishing of the product and use of material properly. Responses were elicited from two dance teachers and two music teachers, where dance and music was regularly taught. They mentioned that the interest, accuracy and their final performance was graded Out of 65, 36.92percent students had drawing /art class in their time table. But the students said that sometimes the subject teachers used those periods to complete their syllabus when the exams were nearing. So adding 36.92percent who had regular drawing and art class and 8percent and 13.84percent students who had work experience and dance and music class regularly it can be said the 60.08percent students had regular activities for enhancing the aesthetic skills.

Eco, health and wellness clubs and other

The suggested activities under these clubs by CBSE were festival celebrations, environment related activities; raising funds for social purposes; organization of seminars, quizzes, community participation and social awareness programs.

The suggested assessment criteria for these activities were participation in club activities; initiative to plan and drive various creative events like environment week, raise funds, other health related activities; member of student council which plans club activities and organizes it; reads and shows high degree of awareness for environment related and wellness related activities; displays originality of ideas while performing these activities; delivers the assigned work related to environment and health related activities effectively; inspires school and community to join such activity.

Teachers Responses: Total of 13 teachers(20.96percent) out of 62 said that there were activities related to environment awareness and health awareness for the students and 49 teachers(79.03percent) did not respond. In the teachers responses there was were only four teachers out of 13 (6.45percent) who said that there was an eco club in the school in which the students were asked to plant small plants and were taught how to take care of the plants. While only six teachers(9.67percent) said that they had health and wellness club in their school where the students were given task of making salads and also told about healthy food and importance of exercise. While only three teachers(4.83percent) said that the students were taken to the heritage walk. None of the teachers mentioned

about the activities related to social awareness like collecting food , fund and other materials for flood victims and children in the orphanages.

Student responses: Out of 65 students, 41 students(63.07percent) said that they had different activities related to environment conservation and cleanliness like participating in the rally on Swachch BharatAbhiyan, making best out of waste to reuse the waste materials, doing street play on Swachch Bharat, tree plantation, tieingrakhi to trees, Holi celebration with flowers , plant seeds and give the plantlets to the nursery, visit to biogas plant to see its functioning, collection of e-waste at home to recycle it, poster making on save oil, field trip to Saputara for seeing the environmental conditions and the preservation of plants there in the botanical garden, doing NukkadNatak to make people aware about the abuse of water, visit to see the functioning of windmills in producing electricity. Total 17 students (26.15percent) also said that they got opportunities to interact with the poor and the orphans, when the school organized joy of giving week in which they collected old clothes and donated to poor, trip to orphanage for donating clothes, food and stationery to them, celebrating Diwali by offering sweets to the orphanage children by inviting them to our school. Seven students (10.76percent) said that they donated money clothes and food packets to the flood affected people in Uttarakhand. While eight students (12.30percent) said that they were taken for heritage walk, visit to Sciencecity. Eight students(12.30percent)said that they were asked to create awareness about voting around their residence. Apart, from this there were 24 students(38.70percent) who said no such activities were conducted. However none of the students said that they did this under any of the clubs, so it can be said that these activities were not regularly done.

From the above analysis it can be observed that 63.07percent students were given the opportunity to participate in activities related to environmental awareness, cleanliness, and social awareness activities like conducting nukkadnatak etc. While it can also be said that only 20.96percent teachers were aware of environment related activities , cleanliness related and social awareness related activities done in the school. while 79.0percent teachers did not mention the name of a even a single activity which show their lack of awaresss of such activities being conducted in the school or they gave least importance o such activities for the all round devilment of the student s

While 12.30percent students said that they were taken for heritage walk and visit to Sciencecity, while 4.83percent teachers said that same, the number of responses by both teachers and the students was differing, may be because many students did not participate in that so they don't remember it. Thus it seems that heritage walk and visit to Sciencecity might not be a compulsory activity but it can be said that opportunity was provided to the students by the school to participate. Thus it can be said that 12.30percent students utilized the opportunity given by the school to do a heritage walk.

There were 26.15percent students who said that they were did the activities like offering clothes and food and stationery to the orphanage and helping the flood hit people by donating money and clothes, but none of the teachers mentioned about any such activities. This shows that teachers were not aware that even such activities inculcate social awareness and values in the children which they grade at the end of the semester, just because such activities were not planned under any academic subject or co-curricular activities the teachers did not mention it. This also reveals the wholistic approach of the personality development of students,that the teachers lack. CCE aimed at al round or wholistic development of students' personality but this needs a change in approach and mindset of the teachers also which seems to be very less and might some more time to develop in the teachers. So it can be said that 26.15percent students were given an opportunity to help the children from orphanage by donating money, clothes and food.

Total 10.70percent students said that they donated money clothes and food packets to the flood affected people in Uttarakhand. None of the teachers spoke about this act done by the students which was good enough to develop the humane feeling towards the suffering people. But the teachers might have not planned such activity so they did not mention but this activity also creates some good abilities like sharing and caring in the students. But teachers were so structured that only planned club activities can develop the values and attitudes that they didn't mention this act done by the students. However it can be said that 10.70percent students were given an opportunity to donate clothes and food packets to the flood affected people in Uttarakhand.

12.30percent students said that they were asked to create awareness about voting around their residence as part of their holiday homework. None of the teachers mentioned about

any such activity , may be they did not recollect since the activity was done solely by the students and also during the vacation. So it can be said that 12.30percent students were given the important task of creating awareness about the importance of voting near their residence .

None of the teachers or the students mentioned that these activities were conducted under different clubs which would ensure the regularity of such activities so the activities related to social awareness, environmental awareness and health and wellness were conducted once in a while as it was done earlier before the CCE started. Conducting such activities once in a while may sensitize them for some time and then the effect will vanish.

Moreover none of the teachers or students mentioned about these activities being assessed so again it can be interpreted that the activities were not consciously planned to inculcate social values, environmental values and awareness towards health. It was done just for the sake of doing since some evidences have to be provided to the CBSE.

Provisions for the physical and health education and its assessment

Health and Physical Education had eight subsections in this section were as follows

1. Sports/ Indigenous sports (Kho-Kho etc.)
2. NCC / NSS
3. Scouting and Guiding
4. Swimming
5. Gymnastics
6. Yoga
7. First Aid
8. Gardening/Shramdaan

Out of these eight subsections any two had to be evaluated.

Student Responses: Out of 65 students 31 students(47.69percent) said that they had yoga was to be done compulsorily done once in a week. While 34 students (52.30percent) had mass drill once in a week and no yoga. Only 10 students(15.38percent) were offered swimming in their schools and remaining 55 students were not offered the swimming. Total 36 students (55.38percent) were offered NCC in their schools in which they had parade once in a week and camps and tracking; 29 students(44.61percent) said that they

didn't have NCC in their schools. Only 34 students(52.30percent) who were taught indigenous games like khokho, kabaddi and Malkham (10 students Kho Kho; 20 students Kabbadi and 4 studentsmalkham). While there were other games that were being played by the students like volley ball, basket ball, cricket and football, the details of which were mentioned below in table number 4.18

None of the students were taught about gardening/shramdaan; first aid; gymnastics. But the students were taught other games like football, basket ball, cricket, volleyball, chess, table tennis, skating and tennis.

Teachers responses on NCC and other sports : Since health and physical education was not given by any of the academic teachers. Eight teachers were asked about the assessment of these activities and the criteria therein. Out of the eight teachers one was a NCC teacher; one was a football teacher; two yoga teachers; one was a swimming teacher; one was a volley ball teacher ;one was an indoor game teacher and one general Physical education teacher who used to teach basketball, cricket and football all the three to the students. Six teachers(75percent) said that they assessed the students based on the interest and enthusiasm shown to attended the inter-school, state level and national level competitions, discipline, sportsman spirit and the regularity shown by the students.

Assessment of Yoga and Mass Drill: The assessment criteria given in the CCE teachers' manual were: keenness and interest in Yoga shown; sits comfortably in correct steady straight posture; regulate the breath properly; was able to sit in the meditative yoga. Out of 65 students 31 students said they had to do yoga every week compulsorily. However two yoga teachers were asked about the assessment criteria used for yoga assessment. The teachers revealed(25percent) that the students were assessed based on the interest shown by the students in doing yoga, the correct postures that they maintain; holding of breath and the comfort with which they perform the yoga. The criteria of assessment seem to be appropriate as per the criteria of evaluation given by CBSE in its teachers' manual.

Out of the 31 students who had compulsory yoga once in a week, 11 students (16.92percent) said that the entire class of 40 students performed yoga in a hall once in a week. In the hall the whole class performed yoga, so teacher hardly gave any feedback about the posture or breath regulation but we were graded and the grades were shown in

the report card at the end of each semester. While the remaining 20 students (64.51percent) said that whole secondary section students did yoga together once in a week.

Total 31 students had yoga and remaining 34 students(52.30percent) didn't have yoga they had mass drill every week. But none of the eight teachers mentioned about the assessment based on of mass drill.

Assessment of Swimming: The assessment criteria for swimming mentioned in the CCE teachers' manual given by CBSE were : skill to dive; able to follow safety norms while swimming; enjoys swimming; displays strength; able to change directions quickly as and when needed; ability to coordinate body parts as needed for diving and swimming. One teacher(12.50percent) who was asked about the assessment of swimming said that only few students opted for swimming because the students had to stay back twice in a week for swimming. But those few students were assessed based on interest they show in swimming; regularity of attending the swimming class; the coordination of movements while swimming and the safety norms followed by the student. The 15.38percent students also said that they were graded on swimming but the grades were not told to them immediately but they good enough feedback so that they can improve swimming skills.

Assessment of NCC/NSS : The assessment criteria given for NCC in the CBSE manual : inclination towards serving people; involvement in the NCC activities; does the tasks given effectively; displays sense of responsibility; displays leadership skills; shows initiative to improve activities; works well in groups; demonstrates independence of thoughts; maintains good rapport with peers, community members and instructors. However one (12.5percent) NCC instructor was asked how the grades were given for NCC activity said that they were given based on discipline that they follow, the regularity/punctuality shown; interest for the NCC activities and the responsible behavior shown during the camps and tracking activities. The assessment criteria given by the teacher was almost similar to the one given in the CCE manual. But the teacher didn't consider the rapport that the student built with the community members and the peers which was also one of the important aspect that has to be assessed through NCC activities. However the 55.38percent students said that they were graded on NCC

activities but the grades were shown in the final report card. Feedback for each NCC activity was given like standing and sitting posture; discipline while eating playing and behaving in front of others and being punctual.

Table.4. 18. List of Sports/ Indigenous sports (Kho-Kho etc.)

Games	No. of students given opportunity to play different Games	No. Students taught by special coaches
Football	56	40
Basket ball	65	36
Volley ball	65	35
Cricket	50	10
Kabaddi	20	20
Malkham	4	4
Chess and table tennis	5	5
Athletics and skating	5	5
Hockey	5	5
Kho Kho	10	10

Students responses: It can be observed that all the students(100percent) were provided with an opportunity to play basket ball and volley ball but the special coaches to teach the game was available only to 36(55.38percent) and 35 students(53.84percent) respectively.

Out of 65 students 56 students (86.15percent) played football but only 40 students(61.53percent) had special basket ball coach who trained them for matches and 24.61percent students didn't have special coach to teach football. Total 50 students (76.92percent) were provided to play cricket but out of them only 10 students(15.38percent) had coaches who would teach them cricket thus 61.54percent students didn't have special coach to teach cricket so couldn't learn even if they were interested to learn. While the national game Hockey was offered only to five students (7.69percent) and they had special coach to teach Hockey, thus the national game hockey was provided only to 7.69percent students. Athletics and skating was also taught to only five students(7.69percent) said that they had a coach to teach them the rules and

regulations. While the indigenous games like malkham,khokho and kabbaddiwas taught only to four(6.15percent),10(15.38percent) and 20(30.76percent) students respectively. The four students (6.15percent) had special coach to teach malkham, while 15.38percent students and 30.76percent students had special coaches to teach kho-kho and kabbadi.

The indoor games like chess and table tennis was played and taught to only five students(7.69percent). These 7.69percent students had special coaches to teacher chess and table tennis.

Assessment of sports/ indigenous games: The assessment criteria given for the assessment of the sports activity by CBSE in the CCE teachers' manual were : display of talent; demonstrates endurance; displays strength; display of agility i.e. to change direction of playing whenever required; ability to overcome the fear related to playing the sports; displays proper coordination of body movements; demonstrates analytic aptitude (ability to react appropriately to group members as per the need); displays healthy team spirit; maintains discipline on and off the field while in the playground; punctuality and regularity.

The students were asked about the assessment of the their physical education activities they said that they were graded but the grades were not shown or told to them and the final grade appeared in the report card. The assessment criteria used by the teachers to grade the students for the physical education activities in terms of the indigenous and other games played by the students response were elicited from four teachers. Out of the eight teachers who were asked for responses on the assessment of sports activity four teachers(50percent) responded because they taught different type of games. One teacher taught football, one teacher taught the indoor games like table tennis and chess , one teacher was a general physical education teacher who taught football and basket ball to the students while one teacher taught only volley ball to the students. All the four teacher gave almost the same criteria based on which they graded the students namely discipline, interest, regularity and the way the rules of the games were followed. These criteria mentioned by the teachers seems to be very few and superficial compared to the criteria mentioned in the CCE teachers' manual and it seems that the teachers needs to be orientated about observation of the criteria like agility, endurance, coordination, analytic aptitude, etc.

Orientation given to teachers for assessment: To assess the students, based on the specific criteria given by the CCE teachers' manual, the teachers need to be oriented accordingly. All the eight teachers were asked if they were oriented about the CCE teachers' manual and the criteria given in that for assessment of physical and health education activities. But all the eight teachers denied of any such orientation and none of the teachers were aware about the teachers' manual also, they were given a printed sheet by the principal or the co-coordinator which had certain criteria of assessment and based on that they evaluated the students.

The above analysis shows that none of the students were taught about gardening/shramdaan; first aid; gymnastics. Thus it can be interpreted that out of the eight subsections in health and physical education none of the students were offered gardening/shramdaan; first aid; gymnastics

All the students had provisions to play games like football, basket ball, cricket, volleyball, chess, table tennis, skating and tennis.

3] The 25percent co-curriuclar teachers revealed that the students were assessed based on the interest shown by the students in doing yoga, the correct postures that they maintain; holding of breath and the comfort with which they perform the yoga. The criteria of assessment seem to be appropriate as per the criteria of evaluation given by CBSE in its teachers' manual. Total 16.92 percent students had yoga in a hall where entire class of 40 students performed yoga once in a week said that teacher hardly gave any feedback about the posture or breath regulation but the grades were shown in the report card at the end of each semester. Thus it can be interpreted that 16.92 percent students performed yoga every week in a small group and were given feedback for improvement

Total 30.75percent students were offered yoga but it was done in a large group where the whole secondary section students did yoga together once in a week. So no feedback for improvement of posture or breathing techniques was given to the students, but grades were shown in report card at the end of the semester. Thus 30.76 percent students were offered Yoga also had to perform it with large number of students so could not get feedback for improvement.

Total 52.30percent students didn't have yoga but had mass drill every week, students said that they were asked to stand in discipline and do mass drill as per the beats of the drum, but no feedback for improvement or health related things were told to them. All the 100 percent teachers said that itwas evaluated bastudnets were evlauted based on interest and enthusiasm shown to attended the inter-school, state level and national level competitions, discipline, sportsman spirit and the regularity shown by the students. It can be interpreted that though CBSE had not given any choice between the mass drill and yoga, but they had insisted on having yoga still 52.30percent students didn't have Yoga because they had mass drill. Moreover it can be interpreted that there was no grade for mass drill while there was grade for yoga.

There were 15.38percent students who were offered swimming said that they were graded on swimming but the grades were not told to them immediately but they were given good enough feedback in each class so that they can improve swimming skills. While 12.50percent responses of co-curricular teachers confirmed that only few students offered swimming hence was easy to give them feedback and they were assessed based on interest they show in swimming; regularity of attending the swimming class; the coordination of movements while swimming and the safety norms followed by the student. Thus it can be interpreted that 15.38percent students were given an opportunity to select swimming and were given enough feedback for improving their swimming skills. While the criteria of evalution mentioned by 12.50percent teachers were appropriate for assessing swimming as per the CBSE manual.

Total 12.5percent NCC instructors said that they assessed the students based on discipline that they follow, the regularity/punctuality shown; interest for the NCC activities and the responsible behavior shown during the camps and tracking activities but did not consider the points like rapport building of the students with community members and the peers which was also one of the important aspect that has to be assessed through NCC activities and was also given in the CBSE Manual. Total 55.38percent students said that they were graded on that but the grades were shown in the final report card and during the NCC activities enough instructions were given regarding posture; about discipline while eating playing and behaving in front of others and be punctual. This leads to the interpretation that 55.38percent students were provided the opportunity to participate in NCC and were

given criteria based feedback but grades were not shown . It can also be interpreted that 12.5percent NCC instructors assessed the students using all the criteria given by CBSE except the criteria of interaction with community members and the peers.

All the students(100percent) were provided with an opportunity to play basket ball and volley ball but the special coaches to teach the game was available only to 36(55.38percent) and 35 students(53.84percent) respectively. This also shows that 44.61percent students could not get proper training from specialized coach to improve their skills in basket ball and 46.15percent students didn't get specialized coaching for playing volley ball. Thus it can be said that only 55.38percent students and 53.84percent students received specialized training from special coaches to play basket ball and volley ball though the provision to play the game was there for all the 65 students.

Out of 65 students 86.15percent students played football but only 61.53percent students had special basket ball coach who trained them for matches and 24.61percent students didn't have special coach to teach football. So it can be said that only 61.53percent students could learn football from specialized coach thus get appropriate feedback.

Total 76.92percent students were provided to play cricket but out of them only15.38percent students had coaches who would teach them cricket thus 61.54percent students didn't have special coach to teach cricket so couldn't learn even if they were interested to learn. So it can be said that though 76.92 percent students had opportunity to play cricket but only 15.38percent students could get feedback on the rules of playing cricket.

While the national game Hockey was offered only to 7.69percent students and they had special coach to teach Hockey, thus the national game hockey was provided only to 7.69percent students. So it can be interpreted that though Hockey was offered only to 7.69percent students they were given specialized training from special coach.

Though Athletics and skating were taught to only 7.69percent students they had special coach to teach them the rules and regulations.While the indigenous games like malkham,khokho and kabbaddiwas taught only to 6.15percent, 15.38percent and 30.76percent students respectively. The 6.15percent students had special coach to teach malkham, while 15.38percent students and 30.76percent students had special coaches to teach kho-kho and kabbadi. So it can be said that indigenous games of malkham, Kho

Kho and kabbadi were taught to few students, i.e. 6.15percent,15.38percent and 30.76percent but were taught by expert teachers so they got enough feedback on improving their skills in the respective games.

Teacher responses: Four teachers out of eight teachers 50percent assessed the based on the criteria discipline, interest, regularity and the way the rules of the games were followed. These criteria mentioned by the teachers seems to be very few and superficial compared to the criteria mentioned in the CCE teachers' manual and it seems that the teachers needs to be orientated about observation of the criteria like agility, endurance, coordination, analytic aptitude, etc. thus it can be said that the assessment criteria mentioned by the 50percent teachers were not as per the criteria given by the board.

All eight co-curricular teachers, who were asked about the assessment of various health and physical education activities conducted in the school. All the eight teachers (100percent) denied of any orientation regarding the aim of health and physical education and the criteria of evaluation given in the CCE Teachers manual.

All the 100 co-curricular teachers said that they assessed based on their own criteria as they were doing earlier before the CCE started.

Thus it can be interpreted that the evaluation of various physical and health related activities were being done in the same manner as it was done in the earlier annual system and it will take time for the teachers to understand the detailed assessment criteria and to implement it. On the part of schools it can be interpreted that they didn't give any importance to the evaluation of physical and health education and hence they did not orient the teacher of physical and health education about the assessment criteria and the aims of CCE.

4.8 Analysis & Interpretation on opinion of teachers, parents, students and principals regarding the implementation of CCE

In implementation of any system the stakeholders were the main component on which the system was being implemented. In CCE, teachers, students, principals and parents were the main stakeholders. The data sources for getting responses were students,priicpals, teachers and parents. The aspects analysed under this objective were Resourcefulness of teachers' manual with respect to evaluating the activities, Resourcefulness of teachers'

manual with respect to planning the activities, Advantages of CCE with respect to students and Disadvantages of CCE with respect to students. After analysing the different responses from the respondents certain point emerged like

Opinions oriented towards scores or marks obtained, Opinions related to development of skills, Opinions related to improvement in learning, Opinions related to related to advantages of grading system over marking system, Opinions related to fear of exam, Opinions related to development of skills, Opinions related to formative exams, Opinions related to improvement in learning, Opinions related to fear of exam /Opinions related reducing stress of the students.When the responses to the acvantagesanddidsadvantages of the planning, organizing and executing of CCE activities by teachers were analysed certain point arised like Disadvantage due lack of training to teachers for planning and execution of activities , Negative attitude of the teachers, Positive attitude of the teachers.

Resourcefulness of teachers' manual with respect to planning the activities

Principals' Responses: Regarding the resourcefulness of CCE teachers' manual in planning and evaluation of different activities given in the CCE:

Seven out of 14 principals(50percent) said that the teachers' manual was resourceful enough for the teachers to plan different activities as per the CCE guidelines. One principal did not respond. The remaining six principals(42.85percent) said that examples of how to integrate values in the subjects were not exemplified and ideas related to planning for an integrated project were not given in the teachers' manual.

Teachers responses: Out of 62 teachers, 28 teachers(45.16percent) said that manual was resourceful enough to plan the activity based lesson plans or other activities; 23 teachers(37.09percent) did not respond. Seven teachers(11.29percent) said that it did not to help them plan activity based lessons or any other activities ; and didn't give any suggestions for improvement. Three teachers(4.83percent) said that they never read the teachers' manual.

While seven out of 62(7/62) teachers who said that manual was not resourceful in planning activity have not given a single suggestion for its improvement, this shows that these teachers were least bothered about the rich resources that they can get from CBSE or they feel that it cannot be improved since it was prescribed by the CBSE board or they

were self confident enough to plan their own activities so they don't want the manual to be modified.

The above analysis reveal the following points

Total 50percent principals have said that teachers' manual was resourceful in planning the activities and 45.16percent teachers have said that manual was resourceful enough to help them plan activities, since the principal responses and the teachers responses were not varying much it can be said that 45.16percent teachers felt that the CCE teachers' manual was resourceful enough to plan various activities related to CCE.

Apart from this though one principal (7.14percent) out of 14 have not responded which was not a considerable number but 23 out of 62(37.09percent) teachers have not responded was a considerable number, this 'no response' from the teachers may be interpreted as either their unawareness about the manual or they were aware but didn't have the mindset to use the manual. However the numeric value of principal responses and teachers responses was varying much, if the no responses was interpreted as the manual was not helpful or the ignorance about the existence of teachers manual it can be said that 7.14percent principals were didn't feel the manual as helpful and 37.09percent teachers also didn't feel that the manual was useful in planning the learning activities.

Seven teachers (11.29percent) thought that the CCE Teachers' manual did not help them plan the activities and this was spoken by 6 principals (42.85percent). The number of responses might be varying much because the total number of teachers were large and principals were few. But however the larger number of principals' responses confirm that 11.29percent teachers responses were valid and they might have actually not received any support in planning of activities. So it can be said finally that 11.29percent teachers did not feel CCE teachers' manual helped them in planning the activities. The principals also stated the lacking points like lack of examples of how to integrate values in the subjects were not exemplified and ideas related to planning for an integrated project were not given in the teachers' manual.

Though teachers(4.83percent) responses were very less, who never read the teachers' manual, but it was to be noticed that these teachers did not ever see the manual.

Resourcefulness of teachers' manual with respect to evaluating the activities

Teachers response : Out of 62 teachers, 27 teachers(43.54percent) said that the guidelines given in the teachers' manual were enough for evaluation of the scholastic and co-scholastic aspects. Out 62, 25 teachers(40.32percent) did not respond whether the manual helped them in evaluating the activities conducted as part of CCE. Total 10 teachers(16.12percent) said that they did not get any help from teachers' manual for evaluating the scholastic and co-scholastic activities and said that it did not help in evaluating the scholastic and co-scholastic aspects because, it lacked specificity of evaluation criteria, the criteria of evaluation given were difficult to observe simultaneously while organizing the activities and that it was good only to evaluate life skills.

The above analysis shows the following

Total seven principals out of 14(50percent) said that the guidelines of evaluation given in the teachers manual was enough to evaluate the different activities and this has been endorsed by 27 teachers responses(43.54percent) which was a significant number, this can be interpreted as the resourcefulness of teachers manual in providing guidelines for evaluation of different skills and activities .

However only few teachers i.e. 10 teachers(16.12percent) said that the manual was not giving proper guidelines for evaluation and 6 principals out of 14(42.85percent) said that teachers manual should be improved . The number of teachers saying that the teachers' manual was providing appropriate guideline for evaluation was more compared to those saying that it was not providing proper guidelines so we can consider that teachers' manual provides enough guidelines for evaluation of different skills and activities. Moreover the suggestions given by six principals who considered that teachers' manual should be improved doesn't contain any suggestion related to evaluation aspects and the suggestions given by the four teachers out of 10(who consider that CCE teachers' manual was not resourceful for evaluation) were also vague, since those things suggested were already there in the teachers manual. So it seems that ten teachers (16.12percent) who had given suggestions for the improvement of manual with respect to evaluation were suggesting just without reading the manual or just for the sake of giving suggestions. So it can be said that 16.12percent teachers did not use CCE teachers' manual for evaluation of different activities conducted as per CCE.

Advantages of CCE with respect to students

Principal response : All the 14 principals, gave different advantages of CCE with respect to students, some principals gave more than one advantage hence the number of responses were more than the number of principals. Two responses (14.28percent) revealed that all round learning of the students was taking place; three responses (21.42percent) indicated that CCE develops all the intelligences of the students and improves the critical thinking, ability to apply the knowledge and enhances the social skills. While one response(7.14percent) expressed that the intention of CCE to create ' no fear' of the exams has been successful. One principal response(7.14percent) showed that slow learners develop in all spheres of their personality if the teacher puts efforts, good system to offer different opportunities for students to learn. One response(7.14percent) also said that grading system has lessened the load of students and this has lead to less humiliation to the slow learners. One response(7.14percent) also revealed that evaluation of life skills has been a good part of CCE. While, five responses(35.17percent) indicated that CCE was good system even for the weak children to score well since different modes of scoring were offered by the formative assessment activities.

Teacher responses Out of the 62 teachers, total number of teachers who spoke about the advantages of CCE with respect to students were only 39(62.90percent). Here one teacher gave more than one response so the total number of responses exceeded the total number of teachers who responded so the total responses were 55 but the number of teachers who responded were only 39. Four responses(7.27percent) showed that the child continuously studies due to CCE unlike earlier where the child used to study only when the exams came. Three responses(5.45percent) indicated that it made teaching learning interesting. Four responses(7.27percent) showed that CCE lessened the rote memorization, lessened the focus on marks due to grade system. Total 14 responses(25.45percent) revealed that it was beneficial for the weak students to score well and pass easily. While five responses (9.09percent) showed that the weekly tests reduced the stress of the students for the final exams as they had to learn small units for each formative tests, and these test marks were included in the final marks so it further kept them comfortable and they were not forced to give the formative tests also because

the retests were conducted. Eight responses (14.54percent) indicated that different testing techniques enhanced socials skills, thinking skills, communication skills, leadership skills, presentation skills and also improved the socialization of the students. Five (9.09percent) responses showed that Learning by doing or activity based learning introduced by CCE ensures full involvement of students in the teaching learning process and hence students develop about the awareness of learning. Eight responses (14.54percent) revealed that since different methods of teaching were used and different modes of teaching were used like club activity, classroom activity continuous learning takes place. Two responses (3.63percent) reveal that both scholastic and co-scholastic aspects of child's personality were developed. Only one response (1.81percent) reveal that a weak students also gets an opportunity to prove himself through formative assessment activities which involves the exhibition of different skills. One response (1.81percent) reveal that different type of questions like long answer questions short answer questions and MCQs and VBQs help in developing reasoning and problems solving ability and develop positive attitude towards life .

Parent Responses : Out of the 38 parents out of 65 who gave the advantages of CCE with respect to CCE, some parents gave more than one response when the content analysis was done so the number of responses was 53 which was more than the number of parents who responded. Ten responses(18.86percent) revealed that CCE has made scoring easy for the students especially for the slow learners and for the others also they get a chance to improve their score if they have not scored in any one of the tests; 14 responses(26.41percent) showed that CCE was good because the students prepare small units for formative test hence they become stress free while preparing for SA exam. Eight responses (15.09percent) indicate that the activities and the practical work given in the formative assessments were good for conceptual understanding of the topics of different subjects so no mugging up takes place; two responses (3.77percent) reveal that grading system was good and has reduced the unnecessary competition; two responses(3.77percent) reveal that student reads read every nook and corner of the text due to the formative exams. Eleven responses(20.75percent) reveal that while doing projects and assignments students learn to gather information from different outside sources like books, community members; newspapers and internet, so they learn the skills of

organizing drawing conclusions and consolidating the gather information hence improve their thinking skills. Six responses (11.32percent) say that students develop various skills important for the personality development like expressing themselves by writing poems/ scripts/ other content, interpersonal skills like co-operation acceptance and adjustment with peers, communication skills , social skills, self reliance and also have gained confidence to speak on stage.

Student responses : Out 65 students, 52 students said that they like to have semester system including FAs and SAs.

21 students out of 52 (40.38percent) said that because they already learn much of the syllabus for the formative written tests they don't have a burden during preparation of SA exam, because half of the content was already prepared. Seven students out of 52(13.46percent) said that they developed lot of skills like speaking and presentation skills and also enhance our knowledge due to the various formative activities due to the different practical works they did in the formative activities ; 13 students out of 52(25percent) said that they could score well because the formative assessment marks were also added in the summative marks; six student(11.53percent) were of the view that they don't have to retain what they have studied for a longer period they can forget what they have studied in the first semester when they go for the second semester unlike annual exams; two students(3.84percent) said that due to the formative tests we come to know where we have made mistake and where we have lost the marks so that the mistake was not repeated in the summative test; three students(5.76percent) said that if they score less in one formative they get a chance to score in the next formative test.

If the analysis of opinions of all the four data sources namely teachers parents students and principals with respect to the advantages of CCE for student, there were certain key points that emerge which were being triangulated and presented below.

Opinions oriented towards scores or marks obtained

1. While five principal responses (35.17percent) indicated that CCE was good system even for the weak children to score well since different modes of scoring were offered by the formative assessment activities. Total 14 teacher responses (25.45percent) revealed that it was beneficial for the weak students to score well and pass easily. Ten parent responses (18.86percent) revealed that CCE has made scoring easy for the students

especially for the slow learners and for the others also they get a chance to improve their score if they have not scored in any one of the tests. Thirteen students (25percent) said that they could score well because the formative assessment marks were also added in the summative marks and three students (5.76percent) responses showed that if they scored less in one formative they got another chance to score in the next formative test. So it can be said that total 16 student responses (30.76percent) were oriented about the improvement in their total score due to the inclusion of formative marks and also the chance they got to improve their scores due to different formative assessments. It can be interpreted that almost 35percent principals responses, 25percent teacher responses, 19percent parent responses almost 31percent students responses revealed the ease of scoring and opportunities for improvement of scores due to availability of formative assessments and the inclusion of formative assessment scores in the final result.

Opinions related to development of skills

2. Two principal responses (14.28percent) revealed that all round learning of the students was taking place. Two teacher responses (3.63percent) reveal that both scholastic and co-scholastic aspects of child's personality were developed. None of the parents spoke about the all round development of the students as visioned by CCE. Out of the principals and teachers also only 14.28percent and 3.68percent responses revealed that all round development took place for the children through CCE, since there was no affirmative response of the parents on all round development it seems all round development could not be achieved to much extent.

3.Three principal responses (21.42percent) indicated that CCE develops all the intelligences of the students and improves the critical thinking, ability to apply the knowledge and enhances the social skills. Seven students out of 52(13.46percent) said that they developed lot of skills like speaking and presentation skills and also enhance our knowledge due to the various formative activities due to the different practical works they did in the formative activities. Eight teacher responses (14.54percent) indicated that different testing techniques enhanced socials skills, thinking skills, communication skills, leadership skills, presentation skills and also improved the socialization of the students. Eleven parent responses(20.75percent) reveal that while doing projects and assignments students learn to gather information from different outside sources like books,

community members; newspapers and internet, so they learn the skills of organizing drawing conclusions and consolidating the gather information hence improve their thinking skills. The numeric value of principal responses and parents responses were almost nearby i.e. 21.42percent and 20.75percent which indicates that CCE activities have improved thinking skills, information and content organizing abilities and social skills. So it can be said that almost 21percent parents andprincipals feel that thinking skills, information and content organizing abilities and socials skills have improved in students due to CCE.

While the students responses and teacher response numeric values was less i.e.14.54percent and 13.46percent respectively, but they emphasize that formative activities have improved the communication and presentations skills in the students. Thus it can be said that almost 14percent teachers and students feel that communication and presentation skills have improved in the students due to CCE.

4. One principal response (7.14percent) also revealed that evaluation of life skills has been a good part of CCE. Six parent responses (11.32percent) say that students develop various skills important for the personality development like expressing themselves by writing poems/ scripts/ other content, interpersonal skills like co-operation acceptance and adjustment with peers, communication skills , self reliance and also have gained confidence to speak on stage. None of the teacher responses revealed about the improvement in life skills as per the aim of CCE. Only few principals responses 7.14percent and 11.32percent parent responses believed that life skill evaluation and activities related to it improved life skills in students like co-operation, adjustment with peers, interpersonal communication skill, self reliance and confidence. Thus it can be said that around 7percent principals and 11percent parents realized that life skills like social skills and self related skills improved in the students due to evalution of life skills.

5.One teacher response (1.81percent) revealed that different type of questions like long answer questions, short answer questions, MCQs (Multiple Choice Questions) and VBQs (Value Based Questions) help in developing reasoning and problem solving ability and develop positive attitude towards life. It can be interpreted that only 1.81percent teachers felt that evaluating the students based on different type of questions develops their reasoning, problem solving ability and positive attitude towards

life. None of the principal or parent responses revealed this but this observations of the 1.81percent teachers seems logical and can be considered as one of the findings of this study.

Opinions related to improvement in learning

6. One principal response (7.14percent) showed that slow learners develop in all spheres of their personality if the teacher puts efforts, good system to offer different opportunities for students to learn.One principal response (7.14percent) also said that grading system has lessened the load of students and this has lead to less humiliation to the slow learners. So it can be said that both the principal responses had a concern about the utilization of CCE for helping the slow learners to learn well. Both the responses can be added and said that 14.28percent principals felt that CCE gave the teacher opportunities to the teachers to plan and organize various activities which would benefit the slow learners also. Only one teacher response(1.81percent) reveal that a weak students also gets an opportunity to prove himself through formative assessment activities which involves the exhibition of different skills. So it can be said that almost 14percent principals and almost 2percent teachers felt that due to various activities under formative assessment in the CCE the slow learners can also utilize their skills and improve their learning. But however none of the parent responses supported the fact that CCE activities provided opportunities to the slow and weak learners to learn.

7.Five (9.09percent) teacher responses showed that Learning by doing or activity based learning introduced by CCE ensures full involvement of students in the teaching learning process and hence students develop about the awareness of learning.Three teacher responses(5.45percent) indicated that it made teaching learning interesting. Eight teacher responses (14.54percent) revealed that since different methods of teaching were used and different modes of teaching were used like club activity, classroom activity continuous learning takes place. Summing up all the above mentioned teacher responses, it can be said that 16 (29.09percent) teacher responses reveal that different modes of teaching i.e. teaching through club activity and classroom activity and use of various other methods of teaching keeps the students involved in learning and improves learning. But eight parent responses (15.09percent) indicate that the activities and the practical work given in the formative assessments were good for conceptual understanding of the

topics of different subjects so no mugging up takes place. So it can be said that 29percent teachers and 15percent parents feel that no mugging up takes place and learning has become interesting and has improved due to different modes of teaching like club activity and classroom activity and learning by doing activities like assignments, project and other practical works. None of the principal or student responses support that learning has improved due to use of different methods of teaching or modes of teaching. The real stake holders, who actually learns were the students and none of the students said that their learning has improved.

8.Four teacher responses(7.27percent) showed that the child continuously studies due to CCE unlike earlier where the child used to study only when the exams came. Two parent responses(3.77percent) reveal that student reads every nook and corner of the text due to the formative exams. The above mentioned parent and teacher responses indicate that due to continuous assessments the students learn continuously and since the content to be learnt for the formative assessment was less they learnt everything about the topic given in the text. These responses try to highlight and since the students learn continuously for the different type of assessment s they learning was good. But six student responses (11.53percent) revealed that the CCE was a good system because they don't have to retain what they have studied for a longer period they can forget what they have studied in the first semester when they go for the second semester unlike annual exams. Thus it can be said that only few teacher responses and parent responses i.e. 7percent and 4percent respectively believe that due to formative assessment the students continuously read and this improves learning, if better learning takes place then it should be retained for long time. But 12percent student responses reveal that the CCE was a good system because what was once learnt was not to be retained for the next exam. This shows that the students only learnt for the purpose of giving exams and not with the purpose of learn well.

9.Two students(3.84percent) said that due to the formative tests we come to know where we have made mistake and where we have lost the marks so that the mistake was not repeated in the summative test. None of the principals, teachers or parent responses support the fact that due to formatives the students could identify their mistakes and avoid doing the same mistake in the summative exam of that semester. So it can be said

that only 4percent students understood the real meaning of formative assessment i.e. getting feedback about one's mistakes so that it was not repeated in the summative exams. This also shows that actual meaning of formative tests which was to give feedback to the students have not been realized by the large number of students, teachers, parents and principals themselves so formatives were conducted for the sake evidence production by the teachers and the principals and only for scoring grades by the students.The component of getting feedback and improving learning based on that was being the motto of conducting formative assessments.

Opinions related to related to advantages of grading system over marking system

10.Four teacher responses(7.27percent) showed that CCE lessened the rote memorization, lessened the focus on marks due to grade system two parent responses (3.77percent) reveal that grading system was good and has reduced the unnecessary competition. It can be said that only very few teachers and parents i.e. 7percent and 4percent respectively realized the unnecessary competition due to marks had reduced due to grading system. None of the principals responses indicated about the grade system and its importance in reducing the competition. So it can be interpreted that only 7percent teachers and only 4percent parents felt that actual competition had reduced, so may be possible that the remaining teachers and parents still kept the competitive thoughts for the students and might be inculcating that in them.

Opinions related to fear of exam

11. One principals response (7.14percent) expressed that the intention of CCE to create '**no fear'** of the exams has been successful. Five teacher responses (9.09percent) showed that the weekly tests reduced the stress of the students for the final exams as they had to learn small units for each formative tests, and these test marks were included in the final marks so it further kept them comfortable and they were not forced to give the formative tests also because the retests were conducted. Total 14 parent responses (26.41percent) showed that CCE was good because the students prepared small units for formative test hence they became stress free while preparing for SA exam. While 21 students out of 52 (40.38percent) said that because they already learn much of the syllabus for the formative written tests they don't have a burden during preparation of SA exam, because half of the

content was already prepared. So it can be interpreted that due to CCE , the semester system was introduced and formatives tests were introduced in both the semesters and this has reduced fear for exams in 40.38percent students and this has been perceived by 7percent,9percent and 26percent principals, teachers and parents respectively. However it seems that almost 60percent students didn't feel that the fear for exams has not reduced due to CCE.

However the analysis of responses shows that all the sources of responses focused more on improvement of cognitive skills like critical thinking, comprehension and the score that the weak students got …thus showing that the mindset of the parents students teachers and principals was still towards the improvement of cognitive abilities that have taken place due to CCE while less number of responses have been received from the different sources which support that grading system has reduced unnecessary competition, CCE has improve the socials skills and other co-scholastics skills, the contribution of different type of questions like HOTs and VBQs in developing the reasoning ability and improving positive attitude towards life, the improved participation of the slow learners in the classroom activities and the real feedback that the formative tests give to the students so that they don't repeat the same mistake again in the summative and only few response appreciated the continuous involvement of the students in learning due to various activities . Thus the major response of advantages of CCE with respect students revolves around opportunities to score and the cognitive abilities that were developed.

Disadvantages of CCE with respect to students

Principal responses: Total gave two principals (14.28percent) said that the all round development doesn't take place the disadvantages of CCE and the remaining five said that CCE has no disadvantages. One principal (7.14percent) said planning activities and substantiating it with evidences was burdensome for the teachers. Four principals (28.57percent)said that it was easy for the students to score due to formatives and hence they do not have the habit of learning large number of lessons at a time hence they fail to score well when they go to class XI and XII, moreover only few students learn out of those activities the remaining students just do the activities for the sake of doing hence learn nothing . One principal(7.14percent) said that the competitive spirit of the students

have reduced due to CCE. One principal (7.14percent) said that we were not training the kids for the actual Indian society, moreover the children were always on their toes for completing all their assignments and projects.

Teacher responses : Total 36 teachers wrote some of the disadvantages of CCE with respect to CCE. Some teachers gave more than one responses so the total number of responses were 47 which were more than the total number of respondents. Ten responses(21.27percent) revealed that students were stressed due to lot of projects, activities and different type of tests. 17 responses (36.17percent) revealed that students developed a casual attitude and less sincerity towards exams because they easily score good grades due to formative assessment and can give re-test if they were absent. Later on some weak students who have scored well in the class X due to formatives when enter XI do not get to score as there were no formative assessment hence they become depressed and sometimes think of committing suicide. Two responses(4.25percent) reveal that the learner centered activities were not helping in retention of the learning concepts, so actual learning was not taking place. Six responses (12.76percent)show that actual learning was also not assessed, since the nature of the activities involves subjectivity manipulations were done during assessment. Three responses(6.38percent) reveal that the competitive spirit of the students was killed due to CCE as the students were diverted from academics due to formative assessment activities . While six responses(12.76percent) revealed that formative assessment was time consuming and hence the syllabus completion becomes difficult. Two responses(4.25percent) reveal that the students have to continuously remain present in the school due to continuous formative assessments hence they were not able to attend some important social functions which reduce their socialization with their relatives. One response(2.12percent) revealed that CCE focuses on developing higher order thinking skills, but we stop focusing on the lower order thinking skills like memorization and there were students who were not able to exhibit lower order thinking skills and we try to make an impractical effort to develop higher order thinking skills.

Parents response: Total 27 out of 65 parents said that CCE was disadvantageous to the students and 38 parents said that CCE was advantageous for the students. All the 27 parents who gave the disadvantages of CCE for students, each parent gave more than one

reason for the CCE being disadvantageous for the students, so the total number of responses were 45. One response (2.22percent) pointed that if CCE was aiming at developing all the skills of the students then the expression of the students while writing the answers in the tests was not given marks was wrong; six responses (13.33percent)indicated that the practical knowledge was not given to the students; two responses(4.44percent) revealed that the projects given were not related to the real life;

13 responses(28.88percent) described that actual learning did not take place because teachers spent much time in conducting activities for formative evaluation and collection of evidences of the evaluation so course was not completed timely and due to this students were not retaining the things that they have learnt; Two responses(4.44percent) reveal that there was no time left for the students to do self learning because they were busy completing projects and assignments; three responses (6.66percent)indicated that every week the formative tests kept the students under stress; seven responses(15.55percent) described that there was not comprehensive exam at the end of the year which will check their overall knowledge gained during the academic year which reduces the memorizing ability of the students so later in class XI and XII they will face lot of problems because there it was an annual system moreover making the board exam optional in the class X also further reduces the comprehending ability of the students. Two responses (4.44percent) indicated that only information was enhanced in the students, knowledge was not enhanced. One response(2.22percent) was about the importance of CGPA in higher classes, which was not given importance in class IX and X as formative activities were used for their final grades but in higher classes this was not done ; two responses(4.44percent) revealed that the students were still discriminated based on grades by the teachers so the objectives of CCE no fulfilled; four responses(8.88percent) revealed that most of the assignments and projects require browsing on internet and since the students were not having the browsing skills they either take the help of the parents or waste lot of time so actual learning was hindered through projects; one response(2.22percent) revealed that students should not be told about the formative assessment it should be done without their knowledge during the teaching learning process; one response revealed that basic moral values were taught as it was taught earlier

now they have situational tests which hardly teach them any moral values they even don't learnt basic values of saying thank you and sorry.

Student responses: Out of total 65 students only 13 students said that they would like to have a different system of exams than CCE. Eight students(12.30percent) said that they like only semester system without formative assessments, so that the number of tests were reduced and time can be saved to teach the topics in the syllabus properly, also it will reduce the tension of giving tests and assignments every week due to which we were not able to enjoy our holidays, sometimes the all the subject teachers give the formative, every two days there was an formative assessment activity which doesn't allow them to concentrate on their studies. While one student (1.53percent) expressed his liking for semester system without summative exams and only formative exams because it was easy to score in formative exams , they had to study less for the formative exams. Two students(3.07percent) said they liked annual system because they felt that what they studied in the annual system they were still remember because they had to remember it till annual exam, while in the CCE pattern whatever they study in the first term they give exam and forget , they don't keep in their memory for a long time. One student (1.53percent) said express the interest in having annual system with formative assessment, so that weak students get a chance to pass also and good students can retain and remember lot of things that they have learnt till annual exams. One student(1.53percent) said that there should be no exams.

Interpretation

The main aim of CCE was to make learning interesting and burden less and reduce the stress of the students. To know the lacunae while implementing this, due to which certain disadvantages point might have arised in the minds of the teachers principals parents and students, these personnel were asked about the disadvantages of CCE with respect to students. The students were not directly asked the disadvantages they were asked to give a comparison between different type of exam schemes viz., annual system with FAs, Semester system without FAs, Semester system with FAs and Annual system without FAs, they were also asked to give some other choice of exams as per their wish.

Opinions related to development of skills

1] Two principals (14.28percent) said that the all round development doesn't take place. One parent response (2.22percent) pointed that if CCE was aiming at developing all the skills of the students then the expression of the students in their own words while writing the answers in the tests was not given marks and was marked wrong. This shows that that 14percent principals and 2percent parents believe that though allround development was the aim of CCE, the mindset of the teachers to accept students expressions and help them develop has not yet seen.

2]While one Parent response(2.22percent) revealed that basic moral values were taught as it was taught earlier now they have situational tests which hardly teach them any moral values they even don't learnt basic values of saying thank you and sorry. This reveals that 2percent parents feel that the basic moral values were not being developed in students as per the aim of CCE.

3] Seven parent responses(15.55percent) described that there was no comprehensive exam at the end of the year which will check their overall knowledge gained during the academic year which reduces the memorizing ability of the students so later in class XI and XII they will face lot of problems because there it was an annual system moreover making the board exam optional in the class X also further reduces the comprehending ability of the students. Two teacher responses(4.25percent) reveal that the learner centered activities were not helping in retention of the learning concepts, so actual learning was not taking place. One teacher response(2.12percent) revealed that CCE focuses on developing higher order thinking skills, but we stop focusing on the lower order thinking skills like memorization and there were students who were not able to exhibit lower order thinking skills and we try to make an impractical effort to develop higher order thinking skills. So adding both the teacher responses it can be said that 3 teacher responses (6.38percent) revealed that the memorization which was a lower order thinking skill and retention abilities were neglected due to CCE. One student (1.53percent) annual system with formative assessment was a good option , so that weak students get a chance to pass also and good students can retain and remember lot of things that they have learnt till annual exams. Two students(3.07percent) said annual system because they felt that what they studied in the annual system they still remembered what they learnt in the schools when annual system was there while in this

system they just forget everything after the semester gets over. Adding the above student responses it can be said that three students(4.61percent) still remembered what they learnt in the annual system. So it can be said that almost 16percent principlas,6percent teachers and 5percent students feel that the lower order abilities like memorizing and comprehension and content retention ability was being neglected in CCE with an aim of developing higher order thinking. While there were many students who don't even have the lower order thinking ability of memorizing the content

Opinions related to Formative exams

4]Four principals (28.57percent)said that it was easy for the students to score due to formatives and hence they do not have the habit of learning large number of lessons at a time hence they fail to score well when they go to class XI and XII, later on some weak students who have scored well in the class X due to formatives when enter XI do not get to score as there were no formative assessment hence they become depressed and sometimes think of committing suicide. One student (1.53percent) only formative exams because it was easy to score in formative exams , they had to study less for the formative exams. The principal responses and the student response reveal that the formative tests help in easy scoring by studying less number of topics for each formative tests, but since in the class XI and XII the formatives were not there the students were not able to score as high as in class IX and X so they get depressed. So it can be said thatalmost 29percent principals and 2percent students believe that the formative assessment helps in scoring well in secondary classes but do not show the students the actual competence of the students to score. So later in higher classes they feel depressed when they were not able to score well.

5]Four principals (28.57percent) said that only few students learned out of the formative activities and the remaining students just did the activities for the sake of doing hence learnt nothing.Two parent responses (4.44percent) indicated that only information was enhanced in the students, knowledge was not enhanced. Six parent responses (13.33percent) indicated that the practical knowledge was not given to the students. Two parent responses(4.44percent) revealed that the projects given were not related to the real life. Total 13 parent responses(28.88percent) described that actual learning did not take

place because teachers spent much time in conducting activities for formative evaluation and collection of evidences of the evaluation so course was not completed timely and due to this students were not retaining the things that they have learnt. Adding the above parent responses it can be said that 23 parent responses(51.11percent) revealed that the formative activities were not practical in nature hence did not give any knowledge to the students. Eight students(12.30percent) said that they like only semester system without formative assessments so that the number of tests were reduced and time can be saved to teach the topics in the syllabus properly .While teacher six responses(12.76percent) revealed that formative assessment was time consuming and hence the syllabus completion becomes difficult.So it can be said that almost 29percent principals,12percent students,13percent teachers and 51percent parents feel that formative assessment activities do not enhance the knowledge and they were too time consuming due to which the syllabus was not completed in time.

Opinions related to improvement in learning

6] One principal(7.14percent) said that the competitive spirit of the students have reduced due to CCE. 17 teacher responses (36.17percent) revealed that students developed a casual attitude and less sincerity towards exams because they easily score good grades due to formative assessment and can give re-test if they were absent. Three teacher responses(6.38percent) reveal that the competitive spirit of the students was killed due to CCE as the students were diverted from academics due to formative assessment activities. If both the above teacher responses were added then the total responses was 20(42.55percent) who emphasize on lack of competitive spirit in the students and due to which they were diverted from academics. Two parent responses(4.44percent) revealed that the students were still discriminated based on grades by the teachers so the objectives of CCE no fulfilled. This shows the stereotyped thinking of the teachers and principals that only if competitive spiritwas there then the students will learn well, it seems the lack of learning environment which was not created in the classrooms that the students were not able learn. The learner centered activities were for the students to learn well not to get diverted. Hence it can be said that 42.55percent teachers were unable to create a learning environment which would compel the students to learn and hence they said that the students were not learning because of lack of competitive spirit. Thus, almost 4percent

parents feel that the teachers and principals mentality had not changed such that they don't discriminate the students based on grades. Also it can be seen that almost 6percent principals and 43percent teachers still have the stereotyped mentality to have competitive spirit in the students for enhancing learning and they were not ready to create a learning environment which will motivate all type of students to learn.

7] Four parent responses(8.88percent) revealed that most of the assignments and projects require browsing on internet and since the students were not having the browsing skills they either take the help of the parents or waste lot of time so actual learning was hindered through projects.

Opinions related to fear of exam /Opinions related reducing stress of the students

8] One principal (7.14percent) said that the children were always on their toes for completing all their assignments and projects. Two teacher responses(4.25percent) reveal that the students have to continuously remain present in the school due to continuous formative assessments hence they were not able to attend some important social functions which reduce their socialization with their relatives. Ten teacher responses(21.27percent) revealed that students were stressed due to lot of projects, activities and different type of tests. Three parent responses (6.66percent) indicated that every week the formative tests kept the students under stress. Two parent responses (4.44percent) reveal that there was no time left for the students to do self learning because they were busy completing projects and assignments. Eight students(12.30percent) said that they like only semester system without formative assessments so that the tension of giving tests and assignments every week due to which we were not able to enjoy our holidays was reduced, sometimes the all the subject teachers give the formative, every two days there was an formative assessment activity which doesn't allow them to concentrate on their studies. Adding all the above teacher responses there were 12 teacher responses (25.53percent) and 5 parents responses(11.11percent) and considering 12.30percent student responses it can be said that students were stressed due to the different type of tests and formative activities. Due to these submission and tests at different time intervals thye were not ready to take holiday in school for social functions due to which the socialization with relatives lessened and they did not get time for self learning and could not concentrate also in their studies. So it can be said that 25.53percent teachers, 11.11percent parents and

12.30percent students felt that the formative assessment tests and activities wasted lot of time and kept the students in stress. The parents don't take students for family functions because this would affect their grade, this attitude of the parents also shows that there was a great need for the parental mindset to think away from the grades and marks for better CCE implementation.

9] Six teacher responses (12.76percent) show that actual learning was also not assessed, since the nature of the activities involves subjectivity manipulations were done during assessment.

10] One parent response(2.22percent) revealed that students should not be told about the formative assessment it should be done without their knowledge during the teaching learning process.

Advantages with respect to planning, organizing and executing of CCE activities

Principals' Responses: Three principals (21.42percent) said that there was no advantage to the teachers, they have to do lot of work planning formative assessment activities, evaluation criteria, collecting evidences, making question papers for pen paper tests and correcting them. One principal (7.14percent) said that whether the planning, organizing and executing were burdensome or not depends on the teachers' attitude toward students' development, if the teacher aims at nurturing the students with all the skills and values planning, organizing and executing the different activities will not be burdensome. Two principals(14.28percent) said that, in the beginning of the year, it was difficult as the annual plan has to be made in which the subject specific activities for different formatives have to be planned and the rubric has to be made, but then the whole year everything moves smoothly. One principal (7.14percent) said that teachers also improve their skills while planning different activities focusing on different activities for affective and cognitive skills, but still the teachers were not much aware about the essence of CCE so they feel it was burdensome. The remaining 7 principals did not speak about advantages of CCE with respect planning, organizing and executing

Teachers Responses: Total 12 teachers out of 62 teachers(19.35percent) gave the advantages of CCE with respect to planning, organizing and execution of activity based lesson plans. Five teachers (41.66percent) said that planning different activities takes lot of efforts but as the planning was done the execution becomes easy. Four teachers

(33.33percent) said that since different activities were done under four formatives therewas lot of scope for each student to exhibit his/her talent in different areas, in other words the hidden talents of the students were exhibited. Two teachers (16.66percent) said that due to the formative assessment the teachers were able to identify the students' weaknesses. One teachers (8.33percent) said that planning and organizing different activities takes lot of time but at the end when the students benefit we feel satisfied. The remaining 50 teachers did not respond to any advantages about planning, organization and executing the activities based on CCE.

Disadvantages with respect to planning, organizing and executing of CCE

Principal Responses: Two principals (28.57percent)said that the teachers were busy collecting evidences of formatives and doing paper work to be submitted to the board, which has increased their paper work. One principal(14.28percent) said that lot of workload has increased due to increased planning and execution of the activities but since the mindset of teachers which thinks teaching to be an easy going profession makes them feel that CCE burdensome. Two principals(28.57percent)said that lot of planning has to be done for completing the formatives and summative which doesn't allow them to focus on syllabus completion and proper teaching. One principal(14.28percent) said that CCE orientation was given to the principals hence it hardly so it hardly helps the teachers to enhance their knowledge about CCE, so the desired goal to be achieved through CCE was practically impossible in India. One principals (14.28percent) said that implementation was being badly done and has decreased the quality of schooling, because a child who cannot even readand write properly due to the formatives gets passed due to formatives. The remaining seven principals did not say about the advantages or the disadvantages which can be interpreted as the unawareness of the principals what challenges the teachers face or they feel that since the system was being implemented the advantages or disadvantages should not be thought of it should be done, or maybe they wanted to say that the teachers were not having any advantage but did not say.

Teachers' responses: Total 35 teachers have given the disadvantages with respect to planning, organizing and execution of activities as given by CCE. Total 13 teachers(37.14percent) said that planning organizing and execution of different activities was burdensome since the class size was more than 30, students' disinterest, time

consuming, and lack of infrastructure hence the actual teaching learning was also affected. Seven teachers (20percent) said that most of the time was spent in collecting evidences of formatives, paper making, project corrects and other clerical tasks of entering marks in different formats, which reduces the actual teaching time. Ten teachers(28.57percent) said that conducting different activities leaves less time for syllabus completion, hence the teachers become lenient and hardly focus on the applicability of the concepts/ do not connect it with the real world giving examples they just explain what was given in the text and complete the syllabus. Due to this they were hardly left with any time for remedial teaching also. Two teachers (5.71percent) said that planning the different activities was difficult and deciding appropriate evaluation criteria was also difficult since evaluation involves keen observation and doing that along with syllabus completion was difficult. Two teachers (5.71percent) said that sometimes sudden planning of activities was done, hence execution was not properly done, it wasdone just for producing the evidence of formative activity. One teacher (2.85percent) said that 20 percent good students who learn well, the remaining students say to the teachers " you'll have to pass us" and create chaos in the class which hinders the teaching learning process.

The analysis of the advantages and disadvantages with respect to planning, executing and organizing CCE activities reveals the following points.

Disadvantage due lack of training to teachers for planning and execution of activities

One principals (14.28percent) said that implementation was being badly done and has decreased the quality of schooling, because a child who cannot even readand write properly due to the formatives gets passed due to formatives. One principal (14.28percent) said that CCE orientation was given to the principals so it hardly helps the teachers to enhance their knowledge about CCE, so the desired goal to be achieved through CCE was practically impossible in India. So adding both responses it can be interpreted that two principals' responses(28.57percent) out of seven, felt that implementation of CCE activities reduced the quality of schooling and one of the reasons was that the teachers' knowledge about CCE was not enhanced. So it can be said that

29percent principals felt that the quality of schooling has reduced due to lack of proper training not given to teacher with respect to CCE.

2.Attitude of the teachers

One principal (7.14percent) said that whether the planning, organizing and executing were burdensome or not depends on the teachers' attitude toward students' development, if the teacher aims at nurturing the students with all the skills and values planning, organizing and executing the different activities will not be burdensome. One principal(14.28percent) said that lot of workload has increased due to increased planning and execution of the activities but since the mindset of teachers which thinks teaching to be an easy going profession makes them feel that CCE burdensome. Adding both the principal responses it can be said that two principals(28.57percent) out of seven felt that the planning organizing and executing the CCE activities was burdensome due to the old mindset of the teachers to count teaching profession as a easy going job. So it can be said that 29percent principals felt that the attitude of the teachers was decisive in making planning executing and organizing the formative activities burdensome or not.

Negative attitude of the teachers : Total 13 teachers(37.14percent) said that planning, organizing and execution of different activities was burdensome since the class size was more than 30, students' disinterest, time consuming, and lack of infrastructure hence the actual teaching learning was also affected. So total 37percent teachers felt that planning organizing and executing the activities was burdensome due to lack of time, large class size and students disinterest.

Positive attitude of the teachers : One teachers (8.33percent) said that planning and organizing different activities takes lot of time but at the end when the students benefit we feel satisfied. Four teachers (33.33percent) said that since different activities were done under four formatives therewas lot of scope for each student to exhibit his/her talent in different areas, in other words the hidden talents of the students were exhibited. Two teachers (16.66percent) said that due to the formative assessment the teachers were able to identify the students' weaknesses. Adding all the teacher responses it can be said

that seven teacher responses(58.33percent) out of 12,revealed that planning organizing and executing the activities benefitted the students and allowed the students to exhibit their hidden talents and teachers could identify the weakness of the students. So it can be said that 58percent teachers had a positive attitude towards planning, organizing and executing different formative activities.

3.Advantages of planning , executing and organizing the activities

Two principals(14.28percent) said that, in the beginning of the year, it was difficult as the annual plan has to be made in which the subject specific activities for different formatives have to be planned and the rubric has to be made, but then the whole year everything moves smoothly. Five teachers (41.66percent) said that planning different activities takes lot of efforts but as the planning was done the execution becomes easy. It can be said that almost 14percent principals and 42percent teachers felt that planning made the execution of the activities easy.

4. Disadvantage of planning , executing and organizing formative activities

Two teachers (5.71percent) said that sometimes sudden planning of activities was done, hence execution was not properly done, itwas done just for producing the evidence of formative activity. Three principals (21.42percent) said that there was no advantage to the teachers, they had to do lot of work planning formative assessment activities, evaluation criteria, collecting evidences, making question papers for pen paper tests and correcting them. It can be said that 6percent teachers and 21percent principals felt that CCE increased the load of planning and sudden planning of formative activities, execution , evaluation and evidence collection.

Two principals (28.57percent) said that lot of planning has to be done for completing the formatives and summative which doesn't allow them to focus on syllabus completion and proper teaching. Ten teachers (28.57percent) said that conducting different activities leaves less time for syllabus completion; hence the teachers become lenient and hardly focus on the applicability of the concepts/ do not connect it with the real world giving examples they just explain what was given in the text and complete the syllabus. Due to this they were hardly left with any time for remedial teaching also. Almost 29percent of principals and teachers felt that completion of formative activities gave them less time for

syllabus completion and hence the applicability of the concepts were not explained to the students.

Disadvantages related to evidence collection

Two principals (28.57percent)said that the teachers were busy collecting evidences of formatives and doing paper work to be submitted to the board, which has increased their paper work. Seven teachers (20percent) said that most of the time was spent in collecting evidences of formatives, paper making, project corrections and other clerical tasks of entering marks in different formats, which reduces the actual teaching time. It can be said that almost 29percent principals and 20percent of teachers felt that most of the time waswasted in paper work that had to be submitted to the board.

Challenges related to Training and Orientation

Total 41 teachers out of 62, did not respond to any challenge related to training and orientation. The remaining 21 teachers gave more than one training needs and challenges that they faced due to lack of proper training, so the total responses were 37. Five responses(23.80percent) said that lack of clarity in parameter based evaluation for formative activities and pen paper tests which was not addressed in the training programs. Total 11 responses (52.38percent) revealed that there was lack of regular subject specific training where interaction between the experts and the participants and sharing of the problems among the teacher participants and giving new upcoming in the subject field were considered. Three responses(14.28percent) revealed that the trainers were not abreast with the new upcoming in the field of CCE and some themselves were not knowing much about CCE. Two responses(9.52percent) revealed that during beginning of the year the detailed orientation was required. Nine responses(42.85percent) showed that the subject specific workshops for planning innovative teaching methods to seek students involvement and interest especially for grammar and mathematics teaching was lacking and also to gain in depth understanding of the subject was needed. Three responses(14.28percent) revealed that training needed for planning interdisciplinary projects and interdisciplinary teaching and integrating co-scholastic with scholastic was not given. Training in form of demonstration should be given for fixed number of subject specific activities, and its fixed criteria should be given, so that it can be practiced uniformly across the schools was revealed by three responses(14.28percent), they also said that the board should fix the number of activities and the by the CBSE board. One response (4.76percent)revealed that there was no platform to express about the redundant data existing in the text books, especially in subjects like ScienceandSocial Science.

Six principals out of 14 principals responded about the challenges related to teacher training. Some of the principals gave more than one response so the total number of responses was more than the number of respondents, the total response was nine. Two responses(33.33percent) revealed that CBSE itself doesn't have regular and compulsory workshops and training programs. Three responses(50percent) revealed that there were training programs regularly organized in the school itself and there were discussion sessions either subject wise or common for all the teachers as the need may be, to

enhance the understanding about CCE and to enhance the teachers' skills. One response(16.66percent) revealed that the trainers from the CBSE were highly qualified but they don't have in depth knowledge about CCE and how to plan the activities as per the CCE structure. Two responses(33.33percent) showed that most of the trainings focused on scholastic aspects and there were less number of training on co-scholastic aspects, none of the trainings focused on conducting co-scholastics hence much time waswasted in conducting activities related to it, so less time was there to teach. One response (1.66percent) showed that all the training programs were on payment basis which has to be borne either by the teacher or the school so many teachers either don't want to go for training or were not sent by the school for the training.

Table 4.19. Challenges related to Teachers Training

Sr.no	Principal Responses	Key Challenges related to teacher training needs	Teacher responses
1.	16.66	**Lack of appropriate resource persons** : trainers from the CBSE are highly qualified but neither have in depth knowledge about CCE nor they were abreast with the new up comings in the field of CCE	14.28
2.	33.33	Lack of regular and compulsory workshops for teachers and compulsory orientation for the teachers	9.52
3.		Lack of subject specific workshops for planning innovative teaching methods to seek students involvement and interest especially for grammar and mathematics teaching	42.85
4.		Lack of regular subject specific training and interaction between the experts and the participants so that sharing the problems among the teacher participants can take place	52.38
5.		Lack of orientation of planning interdisciplinary projects, interdisciplinary teaching and integrating co-scholastic with scholastic	14.28
6.		Lack of demonstration for fixed number of subject specific activities and its criteria for assessment so that can be practiced uniformly across the schools	14.28
7.	33.33	Lack of trainings focused on conducting co-scholastics activities	
8.	16.66	Lack of free training programs	

The above teachers and principal responses confirm that there were certain key areas related to training aspect which were important.

Thus the teacher and principals responses about the challenges related to teacher training reveal that the experts in the training programs lack competence in terms of training for CCE, training program was paid so hardly teachers wish to attend and moreover the regularity of the training was also not there. The teachers highlighted the need for subject specific workshops and trainings on the regular basis with demonstration of activities and its assessment criteria so that the teaching can be made innovative and evaluation can be objective. However the principals highlighted the least focus on co-scholastic aspects in the training program.

Challenges related to scholastic aspects

Teacher responses : Total 44 out of 62 teachers did not respond about the challenges they faced in implementation of CCE. The remaining 18 teachers spoke about the different challenges that they faced related to scholastic aspects, some teachers gave more than one challenge so the total responses were 36. Total eight responses(44.44percent) showed that planning for formative activities and designing the teaching strategies based on different intelligences of the students was difficult. Twelve responses(66.66percent) revealed that executing the designed activities and teaching strategies and ensuring student involvement takes lot of time hence completion of syllabus becomes challenging. Two responses(11.11percent) show that the student involvement was difficult because of their disinterest in certain activities due to different abilities that they possess. Eight responses(44.44percent) also revealed that assess the students on these activities based on different criteria and ensuring studentslearning was also challenging. Two responses(11.11percent) reveal that four FAs to be conducted in less time does not allow to implement the activities as planned. One response(5.55percent) showed that lack of infrastructure hindered the planning, executing and assessment of the different CCE activities. One response(5.55percent) revealed that integrating

formative activities with the topics in the syllabus was challenging. Two responses(11.11percent) reveal that the students were not having basic skills like reading and writing skills and CCE aims at developing advanced skills, so addressing the gap

between the basic skills that the students lack and advanced skills that CCE aims was a challenge.

Prinicpal Responses: Six principals out of 14 principals gave the challenges related to curricular aspects. One principal gave more than one response so the total number of responses were nine. Two responses(33.33percent) revealed that the lack of content knowledge in teachers was a challenge; two responses(33.33percent) showed conducting formative activities and striking a balancing between the scholastic and co-scholastic activities was very difficult. One response(16.66percent) each aspect of CCE like planning for formatives, feedback giving to parents and students conducting remedial were challenging with limited time available. Two responses(33.33percent) revealed that due to CCE there was no comprehensive evaluation of all the concepts taught in a year due to which the students only learn for one semester and hardly put efforts to retain it for a long time, hence when the students come to class XI they were not able to remember all topics comprehensively. One response(16.66 percent) revealed that more number of submission by the student keeps them stressed al the while and they get less time for self study. One response(16.66 percent) revealed that due to CCE the students donet even conceptually try to understand the concepts so that they can retain it for the next classes where it would be required for advanced learning since they know that after one semester exam they wont be asked about it again.

One principal (16.66percent) said that planning activities for life skills was difficult; only one principal (16.66percent) responded that co-curricular

activities planning takes lot of efforts and requires lot of time; adding both the responses it can be said that 2 principals(33.33percent) felt that planning co-scholastics takes lot of time and efforts.

Table 4.20. Challenges related to Scholastic aspects

Sr.no	Principal Responses	Key Challenges related to scholastic aspects	Teacher responses
1		planning for formative activities and designing the teaching strategies based on different intelligences of the students	44 percent
2		Managing time along with execution of designed formative activities and teaching strategies and ensuring student involvement	66.66percent
3		Ensuring student involvement as per their abilities and disinterest in certain activities	11.11percent
4		Striking a balance between ensuring students learning through activities and assessing them based on criteria	44.44percent
5		Four FAs doesn't ensure proper implementation of the activities as planned	11.11percent
6		lack of infrastructure was hindrance in planning, executing and assessment of the different CCE activities	5.55percent
7		integrating formative activities with the topics in the syllabus	5.55percent
8		addressing the gap between the basic skills that the students were lacking like reading and writing skills and developing advanced skills	11.11percent
9	16.66percent	Due to semester system the students didn't try to conceptually understand the concepts so retention of leanring	
10	16.66percent	Provision of time for self study was a challenge since number of submissions was to be done by the students	
11	33.33percent	Lack of comprehensive evaluation of all the concepts taught in a year lead to no retention of the learning hence students faced hardships in class XI	
12	16.66percent	Lack of time for planning for formatives, giving proper feedback to parents and students and conducting remedial	
13	33.33percent	lack of content knowledge in teachers	
14	33.33percent	formative activities and striking a balancing between the scholastic and co-scholastic activities was very difficult	

Challenges related to Co-scholastic aspects

Though the CCE manual considered life skills, attitude, values and co-curricular activities like activities for Scientific Skills, Literary and Creative Skills, Aesthetic skills, Performing arts, Eco club and health and wellness club and Health and Physical Education.

Teacher responses: Out of 62 teachers, 46 teachers did not give any challenges related to co-scholastic aspects. Total 16 teachers gave some challenges with respect to co-scholastic aspects, total responses were 28 since one teacher gave more than one response. Out of four teachers(25percent) said descriptive indicators were lengthy and observing so the indicators for all the children was difficult so some specific guidelines were required for co-scholastic assessment, five point scale was not enough for co-scholastic grading. Three teachers (18.75percent) said that searching for new activities, planning them and organizing them for the students was a challenge. Four teacher(25percent) response said that keeping track of all the students' behavior along with handling students' indiscipline and adolescent specific behaviors, during the co-curricular activities was a challenge. One response(6.25percent) also showed that handling adolescent curiosity was also difficult. Three responses(18.75percent) reveal that encouraging all the students to participate, especially when they were not interested in co-curricular activities was a challenge and observing their performances using various tools was a challenge. One teacher response(6.25percent) showed that co-scholastic aspects were not assessed in the true spirits, two teacher response(12.5percent) also said that whether the co-scholastic has to be integrated while teaching the subjects or has to taught separately was not clear. One teacher(6.25percent) revealed that sustaining students' interest and patience to read properly and write properly the tasks given in the subject was difficult, then how can other values and life skills expected to be developed in the students.

Prinicipal responses: Out of 14 only six principals responded. One principal (16.66percent) revealed that physical education and health education was given separately so what kind of activities and learning to be planned under both was a challenge; two responses(33.33percent) revealed that getting competent teachers who can

conduct co-scholastic activities were less and one response(16.66percent) said that setting timetable for completion of the activities was a challenge. One principal(16.66percent) said that planning activities for life skills was difficult; only one principal(16.66percent) responded that co-curricular activities planning takes lot of efforts and requires lot of time; adding both the responses it can be said that 2 principals(33.33percent) felt that planning co-scholastics takes lot of time and efforts.

Table 4.21. Challenges related to Co-Scholastic aspects

Sr. No	Principal Responses	Key Challenges related to co-scholastic aspects	Teacher responses
1		Assessing the students' on co-scholastic aspects using 5-point scale was challenging. More descriptive indicators are required	25percent
2	33.33percent	Searching and searching for new activities, planning and organizing them for the students was a challenge	18.75percent
3		track of all the students' behavior along with handling students' indiscipline and adolescent specific behaviors	25percent
4		encouraging the students to participate, when they are not interested in co-curricular activities was a challenge and observing their performances using various tools	18.75percent
5		Lack of clarity in teaching co-scholastic as a separate subject or to be taught in an integrated manner with the subjects	12.5percent
6	16.66percent	physical education and health education was given separately so what kind of activities and learning to be planned under both was a challenge	
7	33.33percent	Lack of competent teachers who can conduct co-scholastic activities	
8	16.66percent	setting timetable for completion of the activities was a challenge	

Challenges related documentation

Total 40 teachers out of 62 did not respond to the challenges they faced related to documentation. Out of the remaining 22 teachers, the number of response were equal to the number of respondents. Total 13 responses(59.09percent) revealed, that record keeping and documenting them and evidence preservation was burdensome, because it was lengthy process and tedious, and this also affects the quality of teaching since the teacher who was teaching only has to make record, document and preserve the evidences also. Two responses (9.09percent) showed that since their focus was on teaching learning more, they get less time to document the things. One response (4.54percent) reveal that writing anecdotal record for each students and documenting it was difficult. One response(4.54percent) revealed that workload has increased due to increased descriptive indicators that have to be written. Two responses (9.09percent) reveal that documentation was burdensome but it was needed. One response (4.54percent) revealed that lot of documentation will not make any difference in the personality of the students. One response(4.54percent) also indicated that the grades were manipulated while the documentation was done.

Out of 14 principals, only 6 principals responded to the challenge that they faced due to documentation. The number of responses was more compared to the number of principals who responded because each of them gave more than one response. Three responses(50percent) revealed that preserving evidences of formative assessment activities for more than one year was a challenge; five responses(83.33percent) revealed that making proper documents especially rubric making and maintaining anecdotal records was a challenge; making assessment criteria for life skills was a challenge; one response(16.66percent) showed that assessment of all the skills given by CCE objectively, for 40 students in a class, cannot be objectively done but it was documented very well, this seems to being untrue to the children.

Table 4.22. Challenges related to Documentation

Sr. No	Principal Responses	Key Challenges related to documentation	Teacher responses
1	83.33	Writing of descriptive indicators have increased the workload &making proper documents especially rubric making	4.54
2		grades were manipulated while the documentation was done to do justice to good scorers	4.54
3		Knowing that lot of documentation will not make any difference in the personality of the students, still doing it was a challenge	4.54
4	83.33	documentation was burdensome but it was needed	9.09
5		writing anecdotal record for each students and documenting it was difficult	4.54
6		To focus more on teaching learning and less on documentation was a challenge	9.09
7	50	Doing the process for evidence preservation along with maintaining quality of teaching was a challenge	59.09
8	16.66	assessment of all the skills given by CCE objectively, for 40 students in a class,	

Administrative challenges faced by the Principals: Total eight principals out of 14 principals gave response about the challenges faced in the administrative aspects related to CCE. Some of the principals gave more than one response, so the total number of challenges given were not equal to the total number of principals who responded. One response(12.5percent) revealed that quality of assessment was sacrificed due to time constraint; two responses(25percent) showed that training the fresh teachers to plan their lessons and activities as per CCE was a challenge; one response(12.5percent) revealed that making the parents understand the CCE guidelines was a challenge; one response(12.5percent) revealed that training for the teachers was on payment basis which further discourages the teachers as well as school from sending the teachers for training. One response(12.5percent) revealed that managing the adolescent behaviorwas a big challenge along with the conduct of all the formative activities. One response(12.5percent) revealed that even though the teachers paid and went for training the resource persons did not have expertise in the field of CCE to give training. One

response (12.5percent) revealed that the teachers' attitude towards students was a challenge in implementation of CCE. Three responses (37.5percent) revealed that coordinating between teachers' activity with respect to CCE, giving feedback to parents and students learning and participation in various activities and asking provisions for their remedial all were challenges for a principal.

Table 4.23. Challenges related to Adminstration

Sr. No.	Administrative challenges	Principal response percentage
1	coordinating between teachers' activity with respect to CCE, giving feedback to parents and students learning and participation in various activities and asking provisions for their remedial all were challenges	37.5
2	teachers' negative attitude towards slow learners scoring more due to formative activities was a challenge in implementation of CCE	12.5
3	Getting experts in the field of CCE to send the train the teachers for training was a challenge.	12.5
4	Striking a balance between the management of adolescent behavior and carrying out formative activities was a big challenge	12.5
5	Sending the teachers for Training on payment basis was a challenge	12.5
6	Making the parents understand the CCE guidelines was a challenge	12.5
7	Training the fresh teachers to plan their lessons and activities as per CCE was a challenge	25
8	Ensuring quality of assessment in available time which was less was a challenge	12.5