Continuous and Comprehensive Evaluation

Aim of Education

Education aims at making children capable of becoming responsible, productive and useful members of a society. Knowledge, skills and attitudes are built through learning experiences and opportunities created for learners in school. It is in the classroom that learners can analyse and evaluate their experiences, learn to doubt, to question, to investigate and to think independently. The aim of education simultaneously reflects the current needs and aspirations of a society as well as its lasting values and human ideals. At any given time and place it can be called the contemporary and contextual articulations of broad and lasting human aspirations and values.

An understanding of learners, educational aims, the nature of knowledge and the nature of the school as a social organization can help us arrive at principles to guide classroom practices. Conceptual

development is thus a continuous process of deepening and enriching connections and acquiring new layers of meaning. Simultaneously theories that children have about the natural and social world develop, including about themselves in relation to others, which provide them with explanations for why things are the way they are and the relationship between cause and effect. Attitudes, emotions and values are thus an integral part of cognitive development, and are linked to the development of language, mental representations, concepts and reasoning. As children's metacognitive capabilities develop, they become more aware of their own beliefs and are capable of regulating their own learning.

Characteristics of learning

- All children are naturally motivated to learn and are capable of learning

- Understanding and developing the capacity for abstract thinking, reflection and work are the most important aspects of learning

- Children learn in a variety of ways - through experience, making and doing things, experimentation, reading, discussion, asking, listening, thinking , reflecting, and expressing oneself in speech or writing both individually and with others. They require opportunities of all these kinds in the course of their development

- Teaching something before the child is cognitively ready takes away real learning. Children may '*remember*' many facts but they may not understand them or be able to relate them to the world around them

- Learning takes place both within the school and outside school. Learning is enriched if these two arenas interact with each other. Art and work provide opportunities for holistic learning that is rich in tacit and aesthetic components. Such experiences are essential to be learnt through direct experience and integrated with life

- Learning must be paced so that it allows learners to engage with concepts and deepen the understanding rather than remembering only to forget after examinations. At the same time learning must provide variety and challenge, and be interesting and engaging

> Boredom is a sign that the task may have become mechanically repetitive for the child and of little cognitive value
>
> ■ Learning can take place with or without mediation. In the case of the latter, the social context and interactions, especially with those who are capable, provide avenues for learners to work at cognitive levels above their own
>
> *Source : NCF 2005*

Historical view of various Recommendations and Reports

Examinations are an indispensable part of the educational process as some form of assessment is necessary to determine the effectiveness of teaching learning process and their internalization by learners. Various Commissions and Committees have felt the need for examination reforms. The *Hunter Commission (1882), Calcutta University Commission or Sadler Commission (1917-1919), Hartog Committee Report (1929), the Report of Central Advisory Board or Sargeant Plan (1944), Secondary Education Commission or Mudaliar Commission (1952-53)* have all made recommendations regarding reducing emphasis on external examination and encouraging internal assessment through Continuous and Comprehensive Evaluation.

The need for Continuous and Comprehensive School Based Evaluation has been reiterated over the last few decades. The *Kothari Commission report (1966)* observed, *'On the completion of the course, at the end of the lower or higher secondary stage, the student should receive a certificate from the school alongwith the record of his internal assessment as contained in his cumulative record. This certificate may be attached to that given by the Board in connection with the external examination…' (9.81).* It further adds, *'This internal assessment or evaluation conducted by the schools is of greater significance and should be given increasing importance. It should be comprehensive, evaluating all those aspects of students' growth that are measured by the external examination and also those personality traits, interests and attitudes which cannot be assessed by it.'* (9.84).

Continuous and Comprehensive Evaluation

This aspect has been strongly taken care of in the National Policy on Education (1986) which states that *"Continuous and Comprehensive Evaluation that incorporates both scholastic and non-scholastic aspects of evaluation, spread over the total span of instructional time"* {8.24 (iii)} should be followed.

Report on the Committee for Review of NPE (1986) recommendation brought out by Government of India in 1991 lays down norms for *"continuous comprehensive internal evaluation and suggests safeguards against abuse of this evaluation system"*{268(iv)}.

Report on the *CABE Committee on Policy* brought out by Ministry of Human Resource Development (MHRD), Govt. of India in January, 1992 has also referred to the provisions of NPE with regard to evaluation process and examination reforms and also suggested *'continuous and comprehensive internal evaluation of the scholastic and non-scholastic achievement of the students'* (16.8).

The Report of the Task Force on the Role and status of the Board of Secondary Education (1997) observed: *In our scheme of things, it is the School Boards which are expected to play the central role in the academic renovation of the school system. In other words, leadership has to come from the Board*. Once the Boards get committed to this vital and supplementary system of evaluation and push it vigorously, this innovation will come to be accepted by more and more schools.

"Learning without Burden"- Report of the National Advisory Committee appointed by the MHRD, Department of Education, Govt. of India has stated,

"Board examination, taken at the end of Class X and XII, have remained rigid, bureaucratic, and essentially uneducative…"

Accordingly, National Curriculum Framework, 2005 proposing Examination Reforms stated,

"Indeed, boards should consider, as a long-term measure, making the Class X examination optional, thus permitting students continuing in the same school (and who do not need a board certificate) to take an internal school examination instead"and continues,

"Excellence in diverse areas should be recognized and rewarded. And it is children's responsiveness to what is taught rather than just their capacity to retain it that should be the focus of evaluation",

As a sequel to above, the Position Paper on *'Examination Reforms' by NCERT 2006*, states,

"Indeed, it is our view that the tenth grade exam be made optional forthwith. Tenth-graders who intend continuing in the eleventh grade at the same school and do not need the Board certificate for any immediate purpose, should be free to take a school conducted exam instead of the Board exam."

Place of Evaluation in the Curriculum

A curriculum is what constitutes a total teaching-learning program comprising of overall aims, syllabus, materials, methods and assessment. In short it provides a framework of knowledge and capabilities, seen as appropriate to a particular level. Evaluation not only measures the progress and achievement of the learners but also the effectiveness of the teaching materials and methods used for transaction. Hence, evaluation should be viewed as a component of curriculum with the twin purpose of effective delivery and further improvement in the teaching learning process.

If properly understood, evaluation or assessment will not be perceived as something administered by the teachers and taken by the learners on the conclusion of a period of learning. When evaluation is seen as an end of the learning exercise, both the teachers and the learners will tend to keep it outside the teaching-learning process, rendering assessment broadly irrelevant and alien to the curriculum. Further, such a perception associates anxiety and stress with evaluation for learners. On the contrary, if evaluation is seen as an integral part built into the teaching learning process; it will become continuous like both teaching and learning. When evaluation is subsumed into teaching learning, learners will not perceive tests and examination with fear. It will rather lead to diagnosis, remedial action and enhancement of learning.

Continuous and Comprehensive Evaluation

The scope of evaluation in schools extends to almost all the areas of learners' personality development. It should include both scholastic and co-scholastic areas, i.e. it should be *comprehensive* in nature. This is in line with the goals of education. Evaluation is continuous and reveals the strengths and weaknesses of learners more frequently, so that the learners have better opportunity to understand and improve themselves. It also provides feedback to the teachers for modifying their teaching strategies.

In view of getting a complete picture of the child's learning, assessment should focus on the learner's ability to –

- Learn and acquire desired skills related to different subject areas
- Acquire a level of achievement in different subject areas in the requisite measure
- Develop child's individual skills, interests, attitudes and motivation
- Understand and lead a healthy and productive life
- Monitor the changes taking place in child's learning, behaviour and progress over a period of time
- Respond to different situations and opportunities both in and out of school
- Apply what is learnt in a variety of environment, circumstances and situations
- Work independently, collaboratively and harmoniously
- Analyze and evaluate
- Be aware of social and environmental issues
- Participate in social and environmental projects
- Retain what is learned over a period of time

Thus assessment is a useful, desirable and an enabling process. To realize this, one needs to keep the following parameters in mind :-

Assessment needs to -

- Use a variety of ways to collect information about the learner's learning and progress in all subjects
- Collect information continuously and record the same
- Give importance to each learner's way of responding and learning and the span of time he/she or the child it takes to do so
- Report on a continuous basis and be sensitive to every learner's response
- Provide feedback that will lead to positive action and help the learner to do better

**In the assessment process, one should be careful Never to:**

- Label learners as slow, poor, intelligent etc.
- Make comparisons between them
- Make negative statements

Continuous and Comprehensive Evaluation

Continuous and Comprehensive Evaluation (CCE) refers to a system of school based evaluation of student that covers all aspects of student development. It is a developmental process of student which emphasizes on two fold objectives. These objectives are continuity in evaluation and assessment of broad based learning and behaviourial outcomes on the other.

The term *'continuous'* is meant to emphasise that evaluation of identified aspects of students *'growth and development'* is a continuous process rather than an event, built into the total teaching-learning process and spread over the entire span of academic session. It means *regularity of assessment, frequency of unit testing, diagnosis of learning gaps, use of corrective measures, retesting* and *feedback of evidence to teachers and students* for their self evaluation.
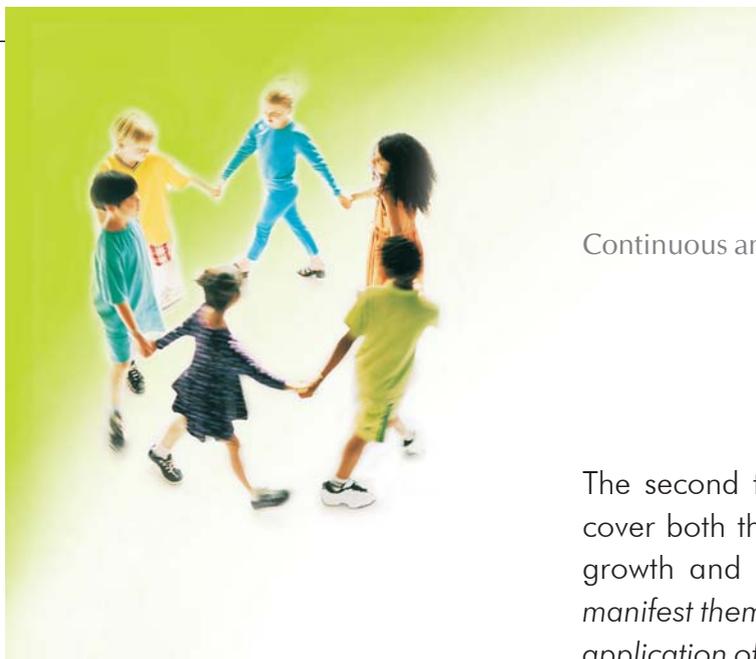
Continuous and Comprehensive Evaluation

The second term *'comprehensive'* means that the scheme attempts to cover both the scholastic and the co-scholastic aspects of the students' growth and development. *Since abilities, attitudes and aptitudes can manifest themselves in forms other than the written word, the term refers to application of variety of tools and techniques (both testing and non-testing) and aims at assessing a learner's development in areas of learning, like:-*

- Knowledge
- Understanding
- Applying
- Analyzing
- Evaluating
- Creating

(a) The objectives are:

- To help develop cognitive, psychomotor and affective skills
- To lay emphasis on thought process and de-emphasize memorization
- To make evaluation an integral part of teaching-learning process
- To use evaluation for improvement of students achievement and teaching-learning strategies on the basis of regular diagnosis followed by remedial instructions
- To use evaluation as a quality control device to maintain desired standard of performance
- To determine social utility, desirability or effectiveness of a programme and take appropriate decisions about the learner, the process of learning and the learning environment
- To make the process of teaching and learning a learner-centered activity

(b) The features are:-

- The *'continuous'* aspect of CCE takes care of *'continual'* and *'periodicity'* aspect of evaluation

- Continual, means assessment of students in the beginning of instructions (placement evaluation) and assessment during the instructional process *(formative evaluation)* done informally using multiple techniques of evaluation

- Periodicity means assessment of performance done frequently at the end of unit/term *(summative evaluation)*

- The *'comprehensive'* component of CCE takes care of assessment of all round development of the child's personality. It includes assessment in **Scholastic as well as Co-Scholastic** aspects of the pupil's growth

- Scholastic aspects include subject specific areas, whereas Co-Scholastic aspects include Life Skills, Co-Curricular Activities, Attitudes and Values

- Assessment in Scholastic areas is done informally and formally using multiple techniques of evaluation continually and periodically. The diagnostic evaluation takes place at the end of a unit/term as a test. The causes of poor performance in some units are diagnosed using diagnostic tests. These are followed with appropriate interventions followed by retesting

- Assessment in Co-Scholastic areas is done using multiple techniques on the basis of identified criteria, while assessment in Life Skills is done on the basis of Indicators of Assessment and Checklists

Source - Examination Reforms, NCERT, 2006

(c) The functions are:-

- It helps the teacher to organize effective teaching strategies
- Continuous evaluation helps in regular assessment to the extent and degree of Learner's progress (ability and achievement with reference to specific Scholastic and Co-Scholastic areas)
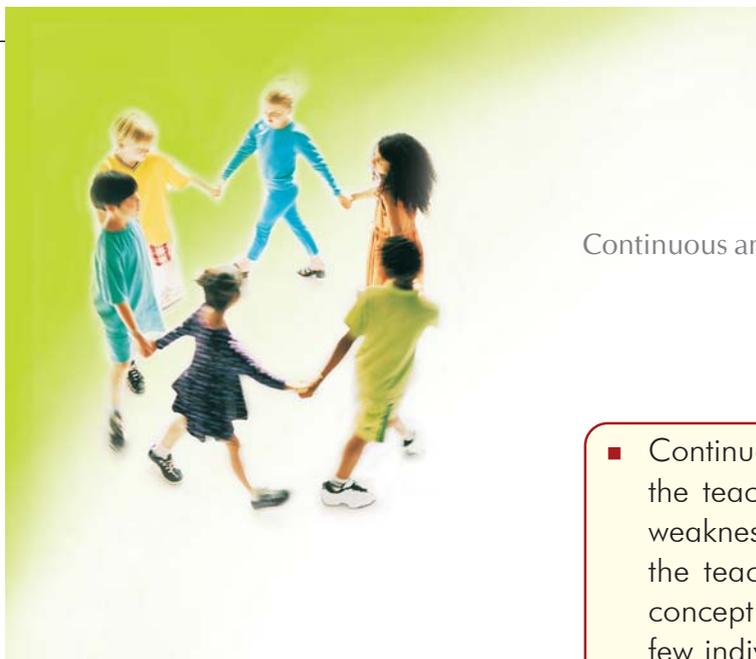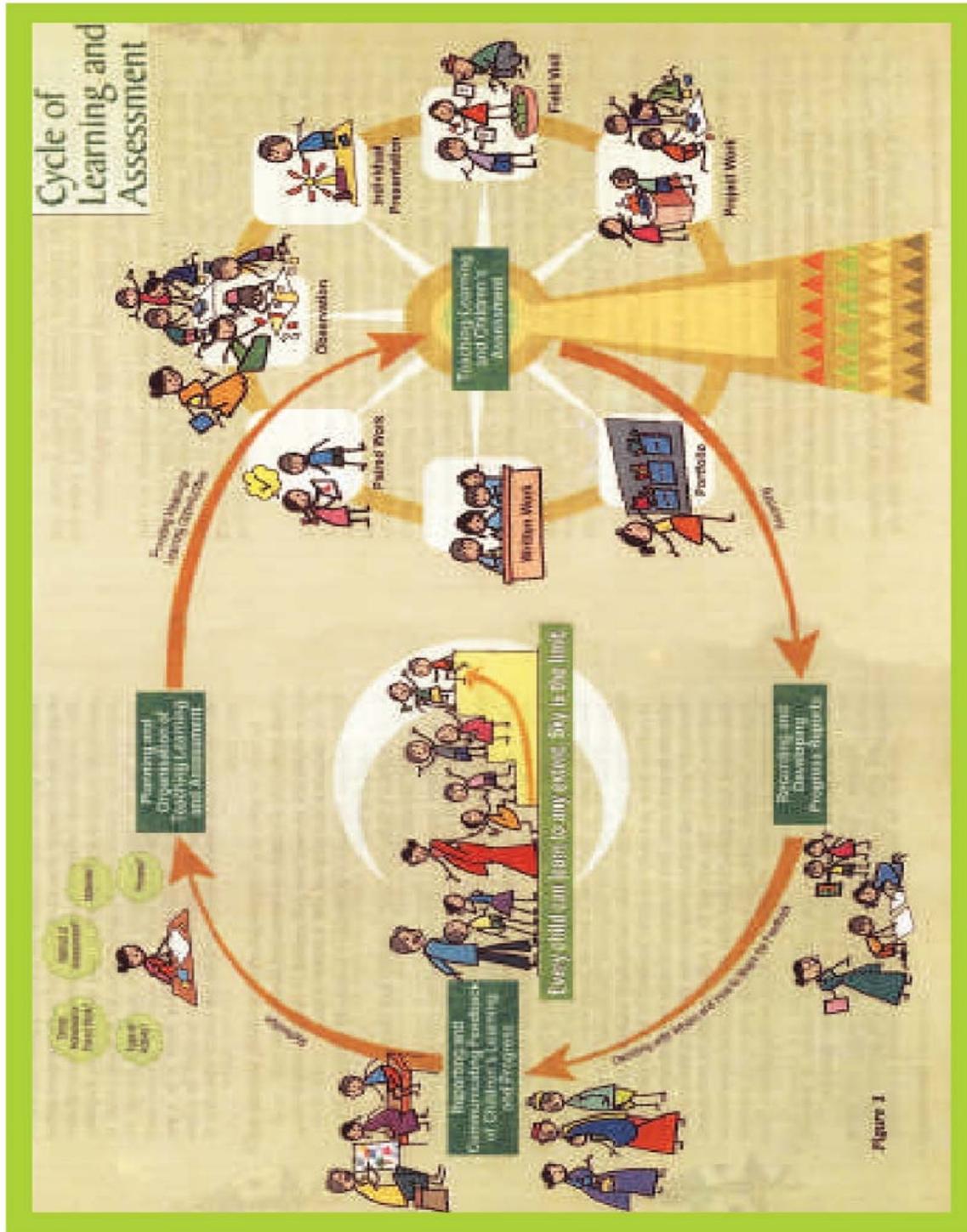
Continuous and Comprehensive Evaluation

- Continuous evaluation serves to diagnose weaknesses and permits the teacher to ascertain each individual learner's strengths and weaknesses and their needs. It provides immediate feedback to the teacher, who can then decide whether a particular unit or concept needs a discussion again in the whole class or whether a few individuals are in need of remedial instructions.
- By continuous evaluation, children can know their strengths and weaknesses. It provides the child a realistic self assessment of how he/she studies. It can motivate children to develop good study habits, to correct errors, and to direct their activities towards the achievement of desired goals. It helps a learner to determine the areas of instruction where more emphasis is required
- Continuous and comprehensive evaluation identifies areas of aptitude and interest. It helps in identifying changes in attitudes and value systems
- It helps in making decisions for the future, regarding choice of subjects, courses and careers
- It provides information and reports on the progress of students in Scholastic and Co-Scholastic areas and thus helps in predicting the future success of the learner

Continuous evaluation helps in bringing awareness of the achievement to the child, teachers and parents from time to time. They can look into the probable cause of the fall in performance if any, and may take remedial measures of instruction thereof, whenever more emphasis is required. Many a times, because of some personal reasons, family problems or adjustment problems, the children start neglecting their studies, resulting in sudden drop in their performance. If the teacher and parents do not notice the sudden drop in the performance of the child in academics, it could result in a permanent deficiency in the childs' learning.

The major emphasis of CCE is on the continuous growth of students ensuring their intellectual, emotional, physical, cultural and social development and therefore it will not be merely limited to assessment of learner's scholastic attainments. CCE uses assessment as a means of motivating learners to provide feedback and do follow up to further improve upon the learning in the classroom and to present a comprehensive picture of a learner's profile.

It is this that has led to the emergence of the concept of **School Based Continuous and Comprehensive Evaluation**.

Source: NCERT 2008

Scholastic and Co-Scholastic Assessment

In order to implement Continuous and Comprehensive Evaluation, both Scholastic and Co-Scholastic aspects need to be given due recognition. Such a holistic assessment requires maintaining an ongoing and comprehensive profile for each learner that is honest, encouraging and discreet. While teachers frequently reflect, plan and implement remedial strategies, the child's ability to retain and articulate what has been learned over a period of time also requires periodic assessment. These assessments can take many forms but all of them should be as comprehensive and discreet as possible. *Weekly, fortnightly,* or *quarterly* reviews (depending on the learning area), that do not openly compare one learner with another are generally recommended to promote and enhance not just learning and retention among children, but their soft skills as well.

Scholastic Assessment

The objectives of the Scholastic domain are:-

- Desirable behaviour related to the learner's knowledge, understanding, application, evaluation, analysis, and creating the ability to apply it in an unfamiliar situation.
- To improve the teaching learning process, Assessment should be both *Formative* and *Summative*.

Formative and Summative Assessment

Formative Assessment is a tool used by the teacher to continuously monitor student progress in a non threatening, supportive environment. It involves regular descriptive feedback, a chance for the student to reflect on the performance, take advice and improve upon it. It involves the students' being an essential part of assessment from designing criteria to assessing self or peers. If used effectively, it can improve student performance tremendously while raising the self esteem of the child and reducing the work load of the teacher.

Formative Assessment is carried out during a course of instruction for providing continuous feedback to both the teachers and the learners. It is

also carried out for taking decisions regarding appropriate modifications in the transactional procedures and learning activities.

- *'… often means no more than that the assessment is carried out frequently and is planned at the same time as teaching.'* (Black and Wiliam, 1999)
- *'… provides feedback which leads to students recognizing the (learning) gap and closing it … it is forward looking …'* (Harlen, 1998)
- *' … includes both feedback and self-monitoring.'* (Sadler, 1989)
- *'… is used essentially to get a feed back into the teaching and learning process.'* (Tunstall and Gipps, 1996)

Features of Formative Assessment

- Is diagnostic and remedial
- Makes provision for effective feedback
- Provides a platform for the active involvement of students in their own learning
- Enables teachers to adjust teaching, to take account of the results of assessment
- Recognizes the profound influence assessment has on the motivation and self-esteem of students, both of which are crucial influences on learning
- Recognizes the need for students to be able to assess themselves and understand how to improve
- Builds on students' prior knowledge and experience in designing what is taught
- Incorporates varied learning styles to decide how and what to teach
- Encourages students to understand the criteria that will be used to Judge their work
- Offers an opportunity to students to improve their work after they get the feedback
- Helps students to support their peer group and vice-versa

Continuous and Comprehensive Evaluation

Summative Assessment is carried out at the end of a course of learning. It measures or *'sums-up'* how much a student has learned from the course. It is usually a graded test, i.e., it is marked according to a scale or a set of grades. Assessment, that is predominantly of summative nature will not by itself be able to yield a valid measure of the growth and development of the student. It, can only certify the level of achievement at a given point of time. The paper pencil tests are basically a one-time mode of assessment and to exclusively rely on it to decide about the development of a student is not only unfair but also unscientific. Overemphasis on examination marks focussing on only scholastic aspects makes children assume that assessment is different from learning, resulting in the *'learn and forget'* syndrome. Besides encouraging unhealthy competition, the overemphasis on Summative Assessment system also produces enormous stress and anxiety among the learners.

Summative

- *"Good summative assessments—tests and other graded evaluations—must be demonstrably reliable, valid, and free of bias"* (Angelo and Cross, 1993).
- *'…assessment (that) has increasingly been used to sum up learning'* (Black and Wiliam, 1999)
- *'… looks at past achievements … adds procedures or tests to existing work … involves only marking and feedback grades to student … is separated from teaching … is carried out at intervals when achievement has to be summarized and reported.'* (Harlen, 1998)

Features of Summative Assessment

- Assessment *of* learning
- Generally taken by students at the end of a unit or semester to demonstrate the *"sum"* of what they have or have not learned
- Summative assessment methods are the most traditional way of evaluating student work

Scholastic Areas (Part I)		
Formative Assessment (Flexible Timing)		Summative Assessment (Written, End of Term)
Tools	Techniques	
■ Questions	■ Examination	■ Objective type
■ Observation schedule	■ Assignments	■ Short answer
■ Interview schedule	■ Quizzes and competitions	■ Long answers
■ Checklist	■ Projects	
■ Rating scale	■ Debates	
■ Anecdotal records	■ Elocution	
■ Document analysis	■ Group discussions	
■ Tests and inventories	■ Club activities	
■ Portfolio analysis	■ Experiments	
	■ Research	

Co-Scholastic Assessment

The desirable behaviour related to learner's life skills, attitudes, interests, values, co-curricular activities and physical health are described as skills to be acquired in co-scholastic domain.

The process of assessing the students' progress in achieving objectives related to Scholastic and Co-Scholastic domain is called comprehensive evaluation. It has been observed that usually under the scholastic domain such as knowledge and understanding of the facts, concepts, principles etc. of a subject are assessed. The Co-Scholastic elements are either altogether excluded from the evaluation process or they are not given adequate attention. For making the evaluation comprehensive, both Scholastic and Co-Scholastic aspects should be given due importance. Simple and manageable means of assessment of Co-Scholastic aspects of growth must be included in the comprehensive evaluation scheme.

Continuous and Comprehensive Evaluation

Co-Scholastic Areas (Part II)

Co-Scholastic Areas
(2A, B, C & D and 3A, B)

2(A): Life Skills	2 (B): Work Education	2(C) Visual and Performing Arts	2(D) Attitudes and Values

Thinking Skills

- Self Awareness
- Problem Solving
- Decision Making
- Critical Thinking
- Creative Thinking

Social Skills

- Interpersonal Relationships
- Effective Communication
- Empathy

Emotional Skills

- Managing Emotions
- Dealing with Stress

1.1. Teachers
1.2 School mates
1.3 School Programmes and Environment
2. Value Systems

3. Co-Curricular Activities

3 (A) Activities (any two):

- Literary and Creative Skills
- Scientific Skills
- Information and Communication Technology (ICT)
- Organizational and Leadership Skills (Clubs)

3 (B) Health and Physical Education (any two):

- Sports/Indigenous Sports
- NCC/NSS
- Scouting and Guiding
- Swimming
- Gymnastics
- Yoga
- First Aid
- Gardening/Shramdaan

Comprehensive evaluation would necessitate the use of a variety of tools and techniques. This will be so because both different and specific areas of learner's growth can be evaluated through certain special techniques.

School Based Continuous & Comprehensive Evaluation

Need

School Based Continuous and Comprehensive Evaluation system should be established to:

- Reduce stress on children
- Make evaluation comprehensive and regular
- Provide space for the teacher for creative teaching
- Provide a tool of diagnosis and remedial action
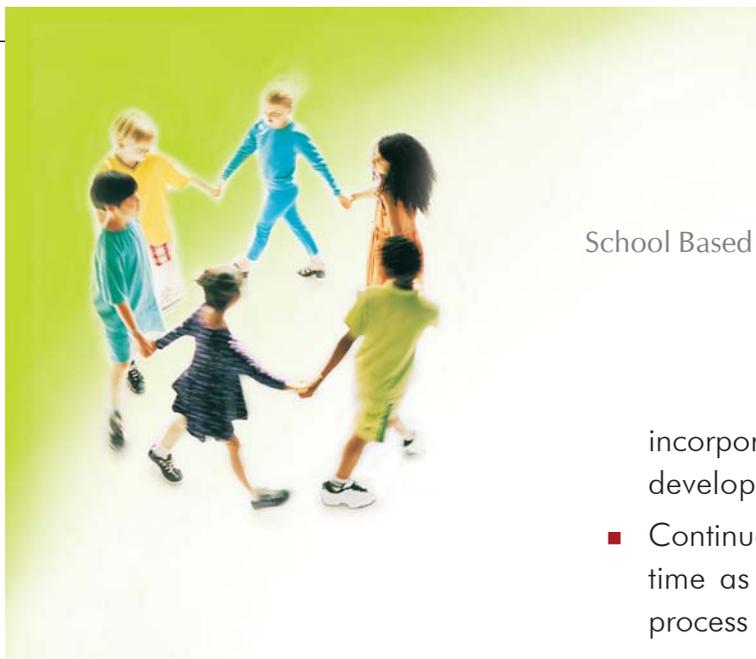- Produce learners with greater skills

  Position Paper on Aims of Education-NCF 2005, NCERT

Aim of School Based CCE

- Elimination of chance element and subjectivity (as far as possible), de-emphasis on memorization, encouraging comprehensive evaluation

incorporating both Scholastic and Co-Scholastic aspects of learners development

- Continuous evaluation spread over the total span of the instructional time as an integral built-in aspect of the total teaching-learning process

- Functional and meaningful declaration of results for effective use by teachers, students, parents and the society

- Wider uses of test results for purposes not merely of the assessment of levels of pupils' achievements and proficiencies, but mainly for their improvement, through diagnosis and remedial/enrichment programmes

- Improvement in the mechanics of conducting examinations for realizing a number of other allied purposes

- Introduction of concomitant changes in instructional materials and methodology

- Introduction of the semester system.

- The use of grades in place of marks, in determining and declaring the level of pupil performance and proficiency

The above goals are relevant for both external examination and evaluation in schools.

Its Characteristics

School Based Evaluation has the following characteristics:

- Is broader, more comprehensive and continuous than traditional system

- Aims primarily to help learners for systematic learning and development

- Takes care of the needs of the learner as responsible citizens of the future

- Is more transparent, futuristic and provides more scope for association among learners, teachers and parents

School based evaluation provides opportunities to teachers **to know the following about their learners**:

- What they learn?
- How they learn?
- What type of difficulties / limitations they face in working in tandem?
- What do the children think?
- What do the children feel?
- What are their interests and dispositions?

The focus has shifted to developing a deep learning environment. There is a paradigm shift in the pedagogy and competencies from 'controlling' to 'enriching' to 'empowering' schools.

Traditional Schooling	Enriching Schooling	Empowering Schooling
■ Teacher centred ■ Subjects and classes - teacher directed ■ Sorting and ranking individuals	■ Student centred ■ Self directed ■ Continuous assessment	■ Experience centred ■ Virtual authenticity ■ Multi literacies
Competency: ■ Memory ■ Competitive	**Competency:** ■ Critical thinking ■ Collaborative ■ Creative	**Competency:** ■ Risk taking ■ Ethical ■ Interactive

There are four Assessment Paradigms

(1) Assessment *of* Learning

The 'assessment *of* learning' is defined as a process whereby someone attempts to describe and quantify the knowledge, attitudes or skills possessed by another. Teacher direction is paramount and the student

has little involvement in the design or implementation of the assessment process in these circumstances.

- Teacher designs learning
- Teacher collects evidence
- Teacher judges what has been learnt (and what has not been learnt)

(2) Assessment *for* Learning

The 'assessment *for* learning' involves increased level of student autonomy, but not without teacher guidance and collaboration. The assessment *for* learning is sometimes seen as being akin to 'formative assessment'. There is more emphasis towards giving useful advice to the student and less emphasis on giving marks and the grading function.

- Teacher designs learning
- Teacher designs assessment with feedback to student
- Teacher judges what has been learnt (student develops insight into what has not)

(3) Assessment *as* Learning

The 'assessment *as* learning' is perhaps more connected with diagnostic assessment and can be constructed with more of an emphasis on peer learning. Assessment *as* learning generates opportunities for self assessment and peer assessment. Students take on increased responsibility to generate quality information about their learning and that of others.

- Teacher and student co-construct learning
- Teacher and student co-construct assessment
- Teacher and student co-construct learning progress map

Assessment *for* learning and assessment as learning activities should be deeply embedded in teaching and learning and be the source of interactive feedback, allowing students to adjust, re-think and re-learn.

(4) Assessment *in* Learning

The 'assessment *in* learning' places the question at the centre of teaching and learning. It deflects the teaching from its focus on a 'correct answer' to a focus on 'a fertile question'. Through enquiry, students engage in processes that generates feedback about their learning, which come from multiple sources and activities. It contributes to the construction of other learning activities, line of enquiry and the generation of other questions.

- Student as the centre of learning
- Student monitors, assesses and reflects on learning
- Student initiates demonstration of learning (to self and others)
- Teacher as a coach and a mentor

Teachers and students need to understand the purpose of each assessment strategy. The overall assessment 'package' being used by learners and teachers should accurately capture, generate and use meaningful learning information to generate deep learning and understanding.

Continuous and Comprehensive Evaluation

CCE in Secondary Classes

Emergence of the Concept in CBSE

The Central Board of Secondary Education has introduced the scheme of Continuous and Comprehensive Evaluation in its schools in a phased manner.

In the year 2000, the Board implemented the concept of an independent Certificate of School Based Evaluation to be awarded by the school to all students who passed CBSE Class X Examination. This certificate was awarded in addition to the Board's regular certificate and marks statement related to external examination. It carried a footnote that a certificate of CCE is also being issued by the school and should also be studied for judging the total personality of the student. Besides Scholastic Areas, Co-Scholastic Areas were included in CCE for assessment over a continuous period of two years i.e. Classes IX and X. A recommended format with detailed guidelines was prepared and disseminated to schools for adoption by the CBSE. (Annexure 3).

As the next step, in 2004, CCE was implemented in primary classes at I-V *(Vide Circulars No. 5/18/25/04)*. Besides doing away with the concept of pass/ fail system upto class V, the assessment focused on the positive aspects of the child's development during this stage. Accordingly Achievement Records for the primary classes - *(for classes I & II and classes III to V)* were also developed and recommended to schools with the objective of facilitating holistic learning. As a follow up, the Board decided to extend CCE to classes IX and X in 2009 *(Circular No. 39/09)* (Annexure 3).

I. Details of Report Book:
Session 2011-2012 for Class IX & Session 2012-2013 for Class X

Part 1 consists of the evaluation of Scholastic Areas which will be reflected both for classes IX & X in this card in the form of Grades.

Part 1: Scholastic Areas

- There will be two terms in both classes IX & X, the *First Term* will be from *April - September* and the *Second Term* from *October - March* of the subsequent year.

- Each term will have *two Formative* and *one Summative Assessment*.

- Assessment will be indicated in Grades.

- The Grading Scale for the Scholastic Areas is a *nine point grading Scale*.

- Overall Grade of Formative Assessments over the two terms (FA1+FA2+FA3+FA4) and the overall grade of Summative Assessment (SA1+SA2) must be given. The total of the two grades (Formative and Summative) should be given in the relevant column.

- The CGPA (Cumulative Grade Point Average) will be provided excluding additional 6th subject as per Scheme of Studies.

- An indicative equivalence of Grade Point and Percentage of marks can be computed as follows:
  Subject wise indicative percentage of marks = 9.5 x GP of the subject

  Overall indicative percentage of marks = 9.5 x CGPA

Continuous and Comprehensive Evaluation
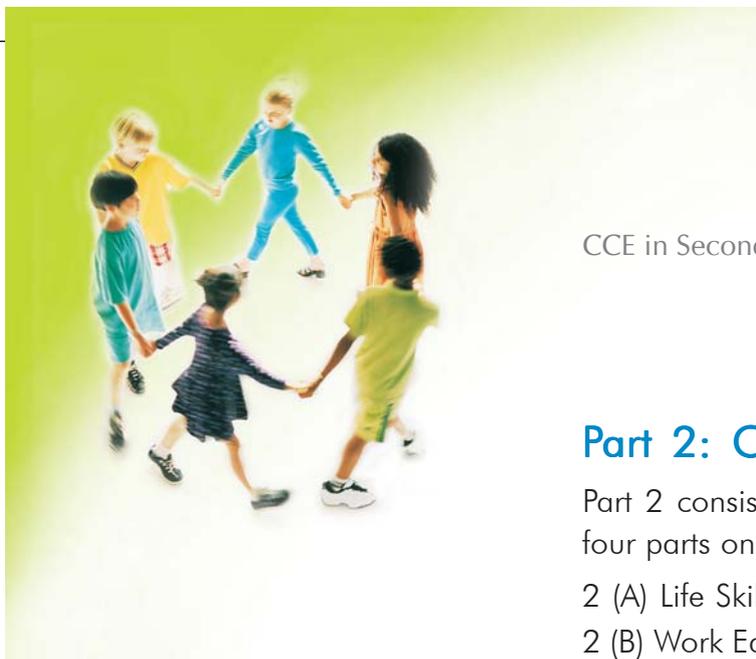
Part 2: Co-Scholastic Areas

Part 2 consists of *Co-Scholastic Areas* where students' are assessed in four parts on a *Five Point Grading Scale*.

2 (A) Life Skills

2 (B) Work Education

2 (C) Visual and Performing Arts

2 (D) Attitudes and Values

Part 2(A) :

- Life Skills consists of *Thinking Skills, Social Skills* and *Emotional Skills*.

Part 2(B) :

- Work Education

Part 2(C) :

- Visual and Performing Arts

Part 2(D):

- Attitudes consists of attitude towards *Teachers, Schoolmates, School Programmes* and *Environment* .
- Value Systems refers to the framework which must be developed right through Primary to Secondary Level.

These are to be filled in after a period of observation over the year by the Class Teacher in consultation with the subject teachers. The guidelines for filling this are given in detail (Chapter 4).

Part 3: Co-Curricular Activities

Part 3 consists of *Co-Curricular Activities wherein choice in participation and assessment thereof is available. It has two sub parts to be assessed on a five-point grading scale.*

Part 3(A): *1. Literary and Creative Skills 2. Scientific Skills 3. Information and Communication Technology (ICT)   4. Organizational and Leadership Skills* (Clubs)

A student will be expected to choose **two** *activities* from these four groups and will be assessed on their level of participation and achievement.

Part 3(B): **Eight** different kinds of Health and Physical Activities have been provided.

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

Students will be assessed on any **two** activities that are chosen from within the *eight* different activities. The objective is to benefit from Physical activities to maximize health benefits. They will be assessed by teachers involved in various activities in school.

The areas given in the CCE card provide adequate opportunities to the learners for their all round development. It has been widely understood that classroom transaction in academic subjects alone cannot foster development in all areas or help to develop Life Skills. The development of qualities such as *Self Esteem, Positive Attitude* and *Life Skills* of *Creative* and *Critical Thinking, Problem Solving* and *Decision Making, Managing Stress* and *Emotions* require development of positive and adaptive behaviours over a period of time. These Life Skills can be integrated into the entire personality of a learner over the ten years of schooling and are essential for fostering personal qualities, nurturing good relationships and developing effective Communication Skills. The developement of good Physical Health, formation of positive Attitude towards others including environment and cultivation of universal values is possible only through learner's involvement in Life Skills and Co-Curricular Activities.

Continuous and Comprehensive Evaluation
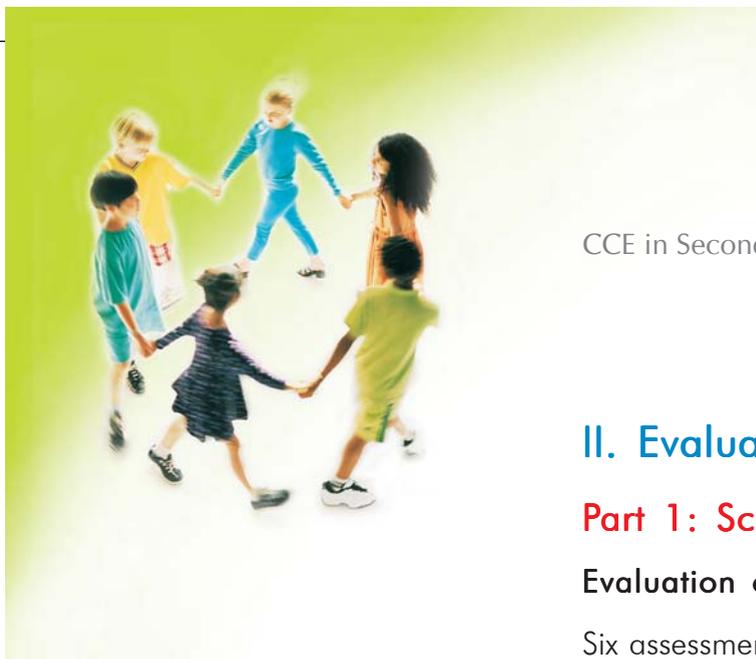
II. Evaluation of Scholastic aspect

Part 1: Scholastic Areas

Evaluation of Academic Subjects in Classes IX and X.

Six assessments are proposed:

Type of assessment	Percentage of weighting in academic session	Month	Term wise weighting
	First Term		
Formative Assessment-1	**10%**	April-May	FA1+FA2=**20%**
Formative Assessment-2	**10%**	July-August	
Summative Assessment-1	**30%**	September	SA1=**30%**
	Second Term		
Formative Assessment-3	**10%**	October-November	FA3+FA4=**20%**
Formative Assessment-4	**10%**	January-February	
Summative Assessment-2	**30%**	March	SA2=**30%**

Total Formative Assessments (FA) = FA1+ FA2 + FA3 +FA4 = **40%**

Summative Assessments (SA)= SA1+ SA2 = **60%**

All across the schools, the most commonly used tools/techniques are those developed by teachers themselves. Among these are paper-pencil tests and tasks, written and oral tests, questions on pictures, simulated activities and discussion with students. Short class tests are used by most teachers as a quick and easy way of assessing the learning progress of children. As these are generally conducted at the end of a unit/month covering the specified content taught during that period, these are no doubt useful but they need to be used effectively.

---

* (i) Teachers will arrive at the Formative Assessment using an acceptable method for combining scores.
   (ii) They will be given opportunity to develop this practice during implementation.

Continuous and Comprehensive Evaluation

Similarly, tests can be formal, informal, written or oral, based on specified content desired to be tested. They are diagnostic in nature as they enable the teacher to identify or reveal the strength and weaknesses of students. A test should not create any fear amongst students and it should be administered in an informal way.

Tools and Techniques for conducting Formative Tests are dealt in detail in Chapter-5

III. Grading Scale

Assessment of Scholastic attainments Part 1 will be reported *twice in* a year.

The *nine point grading scale* for measuring *Scholastic achievements* is given below:

Grade	Marks Range	Grade point
A1	91 -100	10.0
A2	81 - 90	9.0
B1	71 - 80	8.0
B2	61 - 70	7.0
C1	51 - 60	6.0
C2	41 - 50	5.0
D	33 - 40	4.0
E1	21 - 32	3.0
E2	00 - 20	2.0

Minimum qualifying grade in all the subjects under Scholastic Domain is D.

All assessment with regard to the academic status of the students shall be done in marks and the assessment will be given in grades.

Assessment of Co–Scholastic Areas 2(A, B, C & D) and 3(A, B) will be done on 5 point Scale (shown in the table below); reported *once in* class IX and *once in* class X.

Grade	Grade Points
A	4.1- 5.0
B	3.1- 4.0
C	2.1- 3.0
D	1.1 - 2.0
E	0 - 1.0

Minimum qualifying grade in Co-Scholastic Domain is D
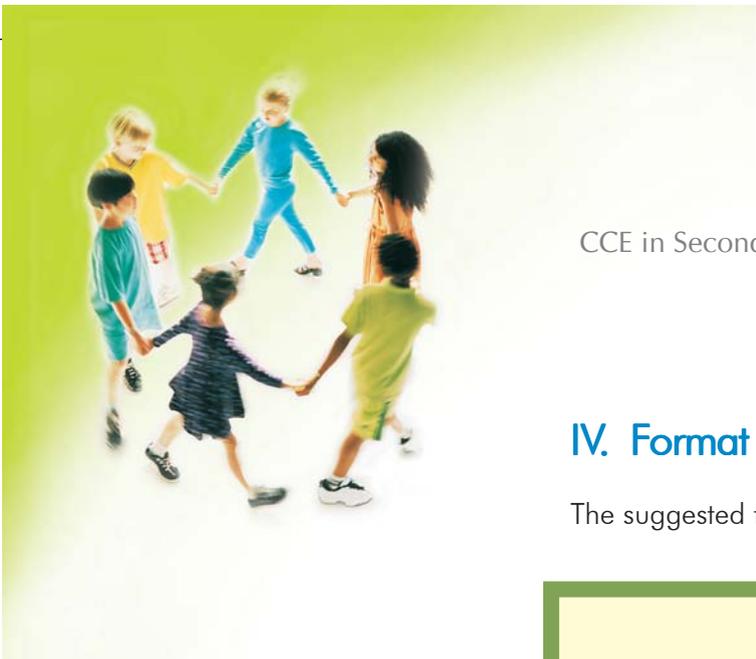
Continuous and Comprehensive Evaluation

IV. Format of Revised Report Book for Classes IX and X

The suggested format of a Revised Report Book is given below.

School Logo

Affiliation No.   _____
Name of School   _____
Complete Address   _____
E-mail id   _____
Telephone No.   _____

Report Book
Class IX: Session 2011-2012
Class X: Session 2012-2013

Student Profile:

Name   _____

Admission No.   _____

Registration No.   _____

Date of Birth   _____

Mother's name   _____

Father's name   _____

Residential Address _____
and Telephone No.   _____
                    _____

Student's Photo with Signature

(Attested by the School Principal along with School Seal)

Attendance:	Term I	Term II
Total attendance of the student	_____	_____
Total working days	_____	_____

Signature: Student   Class Teacher   Principal   Parent

Continuous and Comprehensive Evaluation

Part–I: Scholastic Areas

S.No.	Subjects	Term-I				Term-II				(Term I+II)			
		FA1	FA2	SA1	FA1+ FA2+ SA1	FA3	FA4	SA2	FA3+ FA4+ SA2	FA1+FA2+ FA3+FA4	SA1 + SA2	Overall	Grade Point
01	Language I												
02	Language II												
03	Mathematics												
04	Science												
05	Social Science												
06*	Music												
07	Painting												
08	Commerce												
09	Home Science												
10	Foundation of Information Technology												
11	Addl. Optional Subject												

Result: Qualified/EIOP**_____   CGPA: _____

* Subjects listed from S. No. 06 to 11 are offered by the CBSE for the children with Learning Disabilities. These can also be offered by other students in addition to other subjects.
** Eligible for improvement of performance
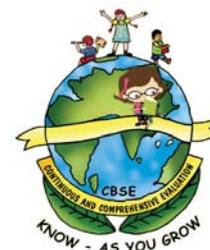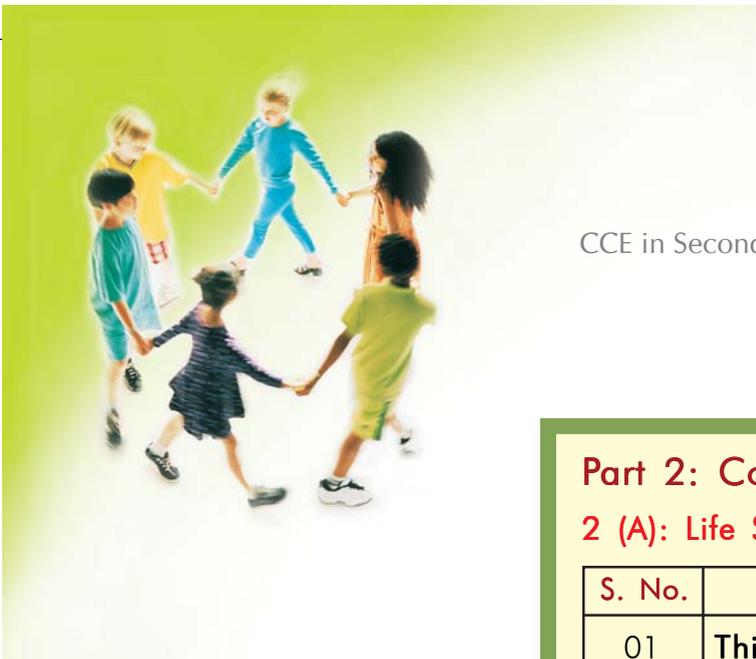
Part 2: Co-Scholastic Areas

2 (A): Life Skills

S. No.	Descriptive Indicators*	Grade
01	**Thinking Skills:**	
02	**Social Skills:**	
03	**Emotional Skills:**	

Thinking Skills: Self Awareness, Problem Solving, Decision Making, Critical Thinking and Creative Thinking

Social Skills: Interpersonal Relationships, Effective Communication and Empathy

Emotional Skills: Managing Emotions and Dealing with Stress

2(B): Work Education

Descriptive Indicators	Grade

2(C): Visual and Performing Arts

Descriptive Indicators	Grade

Suggestive Activities:

Work Education: Cookery Skills, Preparation of stationery items, Tieing and dyeing and screen printing, Recycling of paper, Hand embroidery, Running a book bank, Repair and maintenance of domestic electrical gadgets, Computer operation and maintenance, Photography etc. .

Visual & Performing Arts: Music (Vocal, Instrumental), Dance, Drama, Drawing, Painting, Craft, Sculpture, Puppetry, Folk Art forms etc.

* Descriptive Indicators are statements used to describe each learner.

2(D): Attitudes & Values

S. No.	Descriptive Indicators*	Grade
01 1.1	**Attitude Towards** **Teachers:**	
1.2	**School-mates:**	
1.3	**School Programmes and Environment:**	
02	**Value Systems:**	

Continuous and Comprehensive Evaluation

Part 3 : Co-Scholastic Activities

3(A): *(Any two to be assessed)*

1. Literary & Creative Skills 2. Scientific Skills 3. Information and Communication Technology (ICT) 4. Organisational & Leadership Skills (Clubs).

Sl.No.	Descriptive Indicators	Grade
01		
02		

Suggestive Activities:

Literary & Creative Skills: Debate, Declamation, Creative Writing, Recitation, Drawing, Poster-Making, Slogan Writing, Theatre etc.

Scientific Skills: Science Club, Projects, Maths Club, Science Quiz, Science Exhibition, Olympiads etc.

Information and Communication Technology (ICT): PowerPoint Presentation, Website and Cover Page Designing, Animation, Programming, E-books etc.

Organisational & Leadership Skills (Clubs) : Eco Club, Health & Wellness Club, Heritage Club, Disaster Management Club, AEP and other Clubs etc.

3(B): Health & Physical Activities
(Any two to be assessed)

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.

Sl.No.	Descriptive Indicators	Grade
01		
02		

Health Status

Height_____   Weight_____   Blood Group _____

Vision (L)_____   (R)_____   Dental Hygiene _____
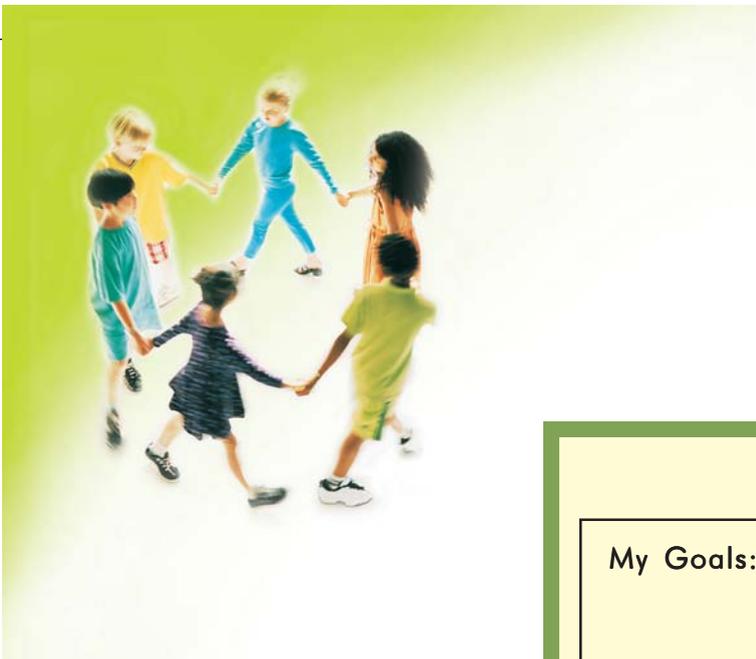
Continuous and Comprehensive Evaluation

Self Awareness

My Goals:
My strengths:
My Interests and Hobbies:
Responsibilities Discharged/Exceptional Achievements:

Scholastic Areas (Grading on 9 point scale)

Grade	Marks Range	Grade Point
A1	91-100	10.0
A2	81- 90	9.0
B1	71- 80	8.0
B2	61- 70	7.0
C1	51- 60	6.0
C2	41- 50	5.0
D	33 - 40	4.0
E1	21- 32	3.0
E2	00 - 20	2.0

Co-Scholastic Areas (Grading on 5 point scale)

Grade	Grade Points
A	4.1- 5.0
B	3.1- 4.0
C	2.1- 3.0
D	1.1 - 2.0
E	0 -1.0

Student must obtain the qualifying grade (minimum grade D) in all the subjects under Scholastic and Co-Scholastic Domain.

* **First Term**: FA1 (10%) + FA2 (10%)+SA1(30%)   = 50%
* **Second Term**: FA3 (10%) + FA4 (10%) + SA2 (30%)   = 50%

Formative Assessment : FA1(10%)+FA2(10%)+FA3(10%)+ FA4(10%)= 40%
Summative Assessment : SA1 (30%)+SA2 (30%) = 60%

■ CGPA (Cumulative Grade point Average) will be provided excluding additional 6th subject as per Scheme of Studies.
■ An indicative equivalence of Grade Point and Percentage of marks can be computed as follows:
    - Subject wise indicative percentage of marks = 9.5 x GP of the subject
    - Overall indicative percentage of marks = 9.5 x CGPA
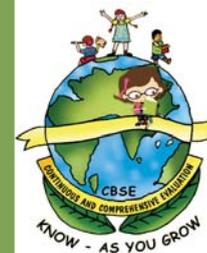
कैन्द्रीय माध्यमिक शिक्षा बोर्ड, दिल्ली
CENTRAL BOARD OF SECONDARY EDUCATION, DELHI
SECONDARY SCHOOL EXAMINATION, SESSION: _____
CONTINUOUS AND COMPREHENSIVE EVALUATION
CERTIFICATE OF SCHOOL BASED ASSESSMENT

Registration No. ——————— Roll No. ———————

Name of Student ————————————————

Date of Birth ————————————————

Mother's name ————————————————

Father's name ————————————————

School name ————————————————

Student's Photo with Signature

(Attested by the School Principal along with School Seal)

Part-1: Scholastic Areas

Subject Code	Subject Name	Class IX			Class X			Overall Grade (Classes IX&X)		
		FA*	SA*	Overall Grade (FA+SA)	FA*	SA*	Overall Grade (FA+SA)	FA*	SA*	Overall

Result: Qualified/EIOP**_____ CGPA: _____

*FA - Formative Assessment (40%), *SA - Summative Assessment (60%)
CGPA - Cumulative Grade Point Average ** Eligible for improvement of performance

Continuous and Comprehensive Evaluation

KNOW - AS YOU GROW

Part 2: Co-Scholastic Areas

(A) : Life Skills

Life Skills	Class	Descriptive Indicators*	Grade
Thinking Skills	IX		
	X		
Social Skills	IX		
	X		
Emotional Skills	IX		
	X		

(B) : Work Education

Class	Descriptive Indicators*	Grade
IX		
X		

(C) : Visual and Performing Arts

Class	Descriptive Indicators*	Grade
IX		
X		

(D) : Attitudes and Values

Attitudes towards	Class	Descriptive Indicators	Grade
Teachers	IX		
	X		
School-mates	IX		
	X		
School Programmes and Environment	IX		
	X		
Value Systems	IX		
	X		

* **Descriptive Indicators** are statements used to describe each learner.
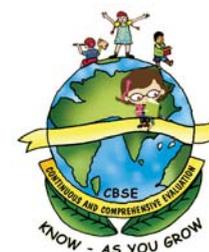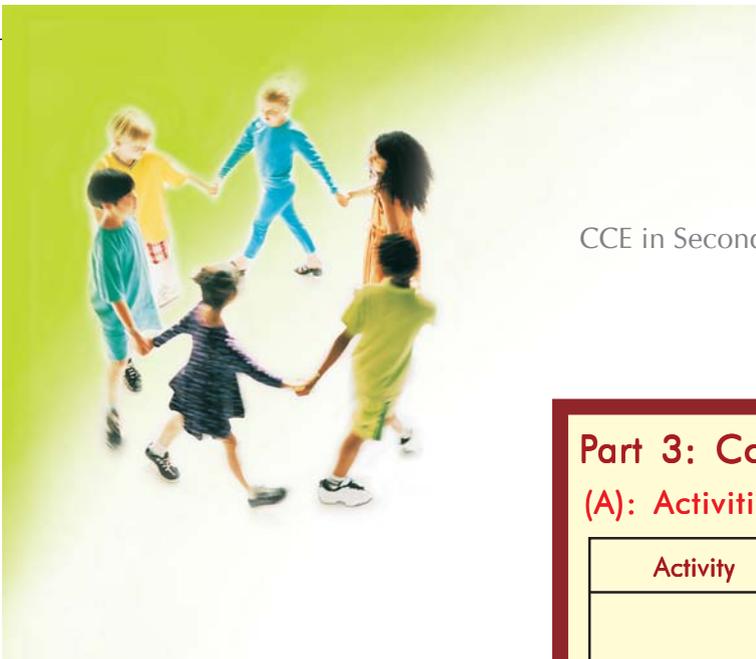
Part 3: Co-Scholastic Areas

(A): Activities

Activity	Class	Descriptive Indicators	Grade
	IX		
	X		
	IX		
	X		

(B): Health and Physical Education

Activity	Class	Descriptive Indicators	Grade
	IX		
	X		
	IX		
	X		

Signature: Controller of Examinations   Principal

Place: Delhi

Dated:

- CGPA (Cumulative Grade point Average) will be provided excluding additional 6th subject as per Scheme of Studies.
- An indicative equivalence of Grade Point and Percentage of marks can be computed as follows:
    - Subject wise indicative percentage of marks = 9.5 x GP of the subject
    - Overall indicative percentage of marks = 9.5 x CGPA

Part1: Scholastic Areas

As per Scheme of Studies, a Candidate is required to study following subjects:
- Language I: English or Hindi
- Language II: any Language other than Language I
- Mathematics
- Science
- Social Science

Additional Subject: any Language other than Language I/II/Commerce (Elements of Business etc.), Painting, Music, Home Science, Introductory Information Technology.

Part 2: Co-Scholastic Areas

(A): Life Skills

Thinking Skills : Self Awareness, Problem Solving, Decision Making, Critical Thinking and Creative Thinking

Social Skills: Interpersonal Relationships, Effective Communication and Empathy

Emotional Skills: Managing Emotions and Dealing with Stress

(B):Work Education: Cookery Skills, Preparation of stationery items, Tieing and dyeing and screen printing, preparing paper out of waste paper, Hand embroidery, Running a book bank, Repair and maintenance of domestic electrical gadgets, Computer operation and maintenance, Photography etc..

(C):Visual and Performing Arts: Music (Vocal, Instrumental), Dance, Drama, Drawing, Painting, Craft, Sculpture, Puppetry, Folk Art forms etc.

(D): Attitudes and Values

Part 3: Co-Scholastic Areas

(A) Suggestive activities (Any two to be assessed):

1. **Literary & Creative Skills:** Debate, Declamation, Creative Writing, Recitation, Poster-Making, Slogan Writing, Theatre etc.
2. **Scientific Skills:** Science Club, Projects, Maths Club, Science Quiz, Science Exhibition, Olympiads, etc.)
3. **Information and Communication Technology (ICT):** PowerPoint Presentation, Website and Cover Page Designing, Animation, Programming, E-books etc..
4. **Organisational & Leadership Skills (Clubs) :**Eco Club, Health & Wellness Club, Disaster Management Club, AEP and other Clubs etc..

(B): Health and Physical Education (Any two to be assessed)

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

Scholastic Areas (Grading on 9 point scale)

Grade	Marks Range	Grade Point
A1	91-100	10.0
A2	81- 90	9.0
B1	71 - 80	8.0
B2	61 - 70	7.0
C1	51 - 60	6.0
C2	41 - 50	5.0
D	33 - 40	4.0
E1	21- 32	3.0
E2	00 -20	2.0

Co-Scholastic Areas (Grading on 5 point scale)

Grade	Grade Points
A	4.1- 5.0
B	3.1- 4.0
C	2.1- 3.0
D	1.1 - 2.0
E	0 - 1.0

Student must obtain the qualifying grade (minimum grade D1) in all the subjects under Scholastic and Co-Scholastic Domain.

*   First Term   : FA1 (10%) + FA2 (10%)+SA1(30%)   = 50%
*   Second Term   : FA3 (10%) + FA4 (10%) + SA2 (30%)   = 50%
Formative Assessment   : FA1(10%)+FA2 (10%)+FA3 (10%)+FA4 (10%)= 40%
Summative Assessment   : SA1 (30%)+SA2 (30%) = 60%
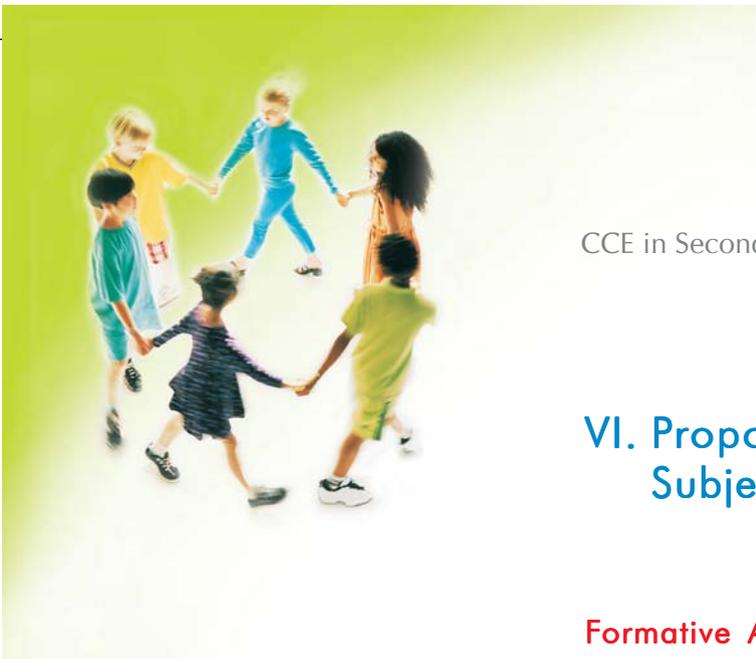
VI. Proposed Evaluation Scheme for Scholastic Subjects:

Formative Assessment Scheme

Focus on Formative Assessment

▼

Share the learning outcomes
and assessment expectations with students

▼

Use clearly defined criteria

▼

Use examples and exemplars

▼

Give specific feedback

(which will help to)

▼

Incorporate Students Self Assessment

▼

Students keep a record of their progress

▼

Teachers keep records of students progress

Continuous and Comprehensive Evaluation

The reason why we use different methods:

- Learning in different subject areas and aspects of development is to be assessed
- Learners may respond better to one method as compared to another
- Each method contributes in its own way to teacher's understanding of learner's learning

In order to help students improve their performance levels, the schools shall diagnose their learning difficulties through formative tests right from the beginning of the academic year and bring it to the notice of parents at appropriate intervals of time. They will recommend suitable remedial steps to enhance their learning capability. Similarly, especially gifted children should be provided with further reinforcements by giving them additional assignments, enrichment material and mentoring. Due provision should be made in the class timetable for mentoring and to address different kinds of learners. The teacher also needs to incorporate strategies for dealing with differently abled students in her class.

The Formative Assessment should normally be made on recorded evidences based on anecdotal records to be maintained by the class teacher or the subject teacher.

It will be advisable to communicate levels of attainment to the students and parents during the course of the academic year, so that with their co-operation, the remedial measures are taken in time for enhancing the performance of the students. **The overall assessment should be followed by the descriptive remarks by the class teacher about the positive and significant achievements, avoiding negative assessment even by implication.**

It implies:

- Sharing learning goals with students
- Involving students in self assessment
- Providing feedback which leads to students recognising and taking the next steps
- Being confident that, every student can improve

Continuous and Comprehensive Evaluation

Specific Recommendations for Formative Assessment

Listed below are a few recommendations for Formative Assessment which can be followed by schools. This list gives suggestions month-wise for various subjects. **It is advised that within each term, schools use the paper-pencil test only once for assessing student performance under Formative Assessment.** The purpose is to ensure use of multiple modules of assessment so that the focus on written tests is reduced.

In order to fulfill the objectives of Formative Assessment and to enable students to improve performance, teachers need to use a variety of assessment tools during the course of their teaching. **It is mandatory that the teachers must use at least 3-4 different assessment tools during the term for each Formative Assessment (FA).** This list given below is not exhaustive, it is only to give an idea of the variety possible.

> *Note:* Formative Assessment can be carried through using multiple modes of assessment such as assignments, quizzes, debates, group discussions, projects. It may be clearly communicated to all teachers teaching various subjects that all projects and assignments must be done as group activities within the class and school time only. Each subject must have only one paper pencil test under Formative Assessment. The other modes of Assessment must be a part of classroom interactive activities.

Languages

- Oral and listening - these could be listening comprehension, prepared speech, conversation or dialogue
- Written assignments - short and long question answers, creative writing, reports, newspaper articles, diary entries, poetry etc.
- Speeches - debates, oratory, recitation, extempore etc.
- Research projects - information gathering, deductive reasoning, analysis and synthesis and a presentation using a variety of forms including the use of Information and Communication Technology (ICT)
- Pair work/group work
- Peer assessment

It is suggested in Languages at least some assessments should be for assessing **Conversation Skills**.

Mathematics

- Problem solving, Multiple Choice Questions (MCQ)
- Data handling and analysis
- Investigative projects
- Math Lab activities.
- Models including origami etc.
- Research projects and presentations
- Group projects
- Peer assessment
- Presentations including the use of Information and Communication Technology (ICT)

It is suggested for Mathematics that at least some Formative Assessment tasks should be based on the **Maths Lab Activities**

Sciences

- Written assignments, Multiple Choice Questions - MCQ
- Experimental work which may involve *one or more* of setting experiments, making observations, handling data, making deductions, working safely
- Planning or designing experiments to collect data or to investigate properties, laws, phenomena etc.
- Research work which could be investigative or information gathering and deducing
- Group work - research or experimental
- Contextual research projects
- Peer assessment
- Presentations including the use of Information and Communication Technology (ICT)
- Science Quiz
- Seminar
- Symposium
- Field Trips

Continuous and Comprehensive Evaluation
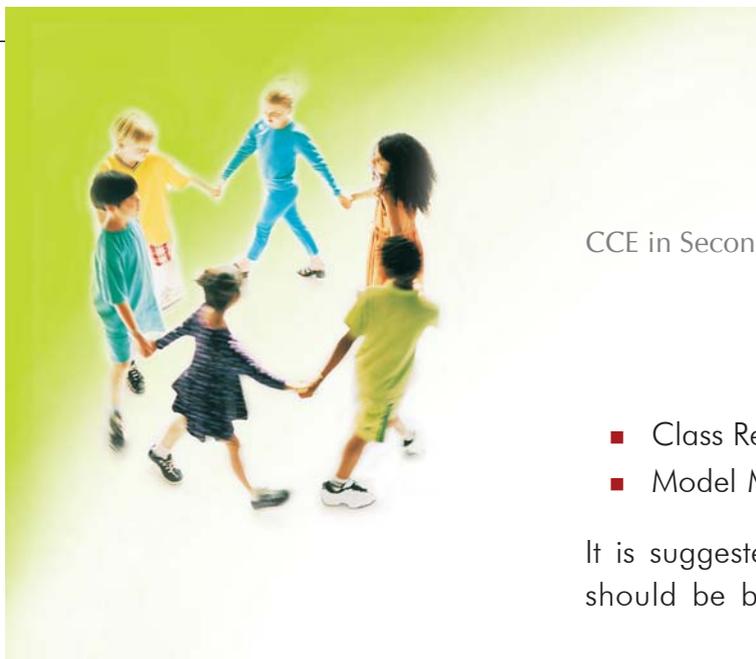
- Class Response
- Model Making

It is suggested that for Science at least some Formative Assessments should be based on **Experiments** and **hands-on activities**.

Social Sciences

- Written assignments - short and long answers
- Commentaries
- Source-based analysis
- Projects - investigative, informative, deductive and analytical
- Research
- Group work - projects and presentations
- Models and charts
- Presentations including the use of Information and Communication Technology (ICT)
- Using authentic sources and primary texts
- Open-book tests
- Secondary sources
- Comparison and contrast

It is suggested in Social Science that at least some assessment **should be based on projects** which are done in groups as in-class activities under the direct supervision of the teacher.

A system of education and examination that teaches members of disadvantaged groups the requisite problem-solving and analytical skills needed by the job market is vital. Memorizing and regurgitating textbooks is not a skill needed by the job market. An exam system that encourages this type of 'learning' snuffs out creativity. To teach skills and create excellence, is the way - perhaps the only sustainable way - toward real equity'.

Examination Reform, NCF 2005 – NCERT

Continuous and Comprehensive Evaluation

Assessing Co-Scholastic Areas

Collecting Evidence and Interpreting

Learning in Scholastic and Co-Scholastic Areas is demonstrated by change of behaviour in the learner. Behaviour is of two kinds – covert and overt. Overt behaviour is the outer expression of covert behaviour. As a teacher, you can judge a student only by his/her overt behaviour. For example, understanding is covert; you really do not know whether a student has understood even if he/she says "Yes, Ma'am". However, when the student explains to you the concept, you know for sure his/her level of understanding. In this example, 'explain' is the *overt behaviour* and 'understand' is the *covert behaviour*.

Overt behaviour of a student provides us evidence to assess his/her level of learning. Evaluation is all about collecting evidence and interpreting the human behaviour based on the evidence. Unlike robots or programmed instruments, human beings have a mind and are flexible. Hence, we prefer repeated evidence and then see the trend. For example, a student may be sometimes joyful, some other times sad and yet on some other occasions angry. You may not be able to draw a conclusion – whether the student is joyful or not. But, if a student is courteous to you most of the time, and courteous to all your colleague teachers most of the time, you can safely conclude, 'the student is very courteous'. Do you agree?

Continuous and Comprehensive Evaluation
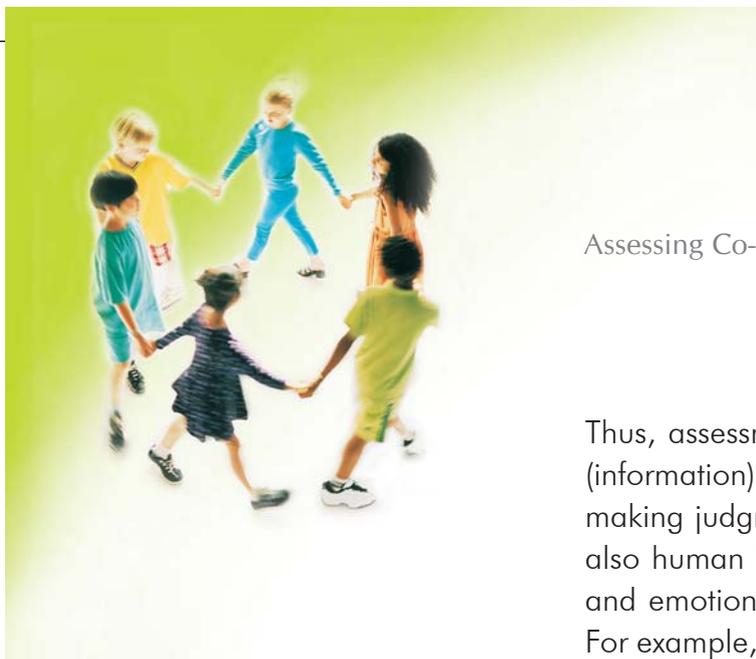
Thus, assessment of human behaviour is collecting repeated evidences (information), identifying the trend of behaviour, deriving conclusions or making judgments and providing feedback. Since, we the assessors are also human beings, and are subject to our own beliefs, values, moods and emotions, we can **'be'** and often **'are'** subjective in interpretation. For example, a student expresses his/her difference in opinion to a stated view with respect to a concept or a practice in the class. A 'classical' teacher will construe it as indiscipline and ask her to behave, whereas a 'neo-modern' teacher will construe it as divergence and enter into a discourse with an open mind. The latter will rate the same behaviour as very positive and creative. **Research on human behaviour recommends use of 'triangulation' technique – collecting and interpreting evidence by multiple assessors (at least three in number).**

To sum up, it may include the following steps:

1. Identifying qualities
2. Specifying behaviours and indicators of the concerned area or skill
3. Collection of evidence in respect of behaviour and indicators through observation and other techniques
4. Recording of the evidences
5. Analysis of the recorded evidences
6. Reporting or awarding grades

The analysis of records raised as a result of periodic observation is done to validate the attainment of the quality resulting in growth in the Co-Scholastic Areas. The grades and descriptive indicators are assigned on the basis of the degree of attainment of a particular skill or behavioural outcome.

We have so far used a few terminologies that are landmarks in human behaviour assessment. These are:

1. Overt behaviour
2. Evidence of behaviour
3. Trend of behaviour
4. Triangulation

Thus, our fundamental challenge in assessing students in Co-Scholastic Areas are four-fold:

a. Identifying overt behavioural indicators for each of the chosen areas
b. Creating a scheme of assessment for certification
c. Tools and techniques of gathering data and evidence
d. Data archiving, interpreting and certifying

In this chapter , we will deal with the first two issues. The other two, we will take up in Chapter 5.

Overt Behaviour Indicators

Just to remind you, we have chosen the following Co-Scholastic Areas. These are:

1. Life Skills
2. Work Education
3. Visual and Performing Arts
4. Attitudes and Values
5. Literary and Creative Skills
6. Scientific Skills
7. Information and Communication Technology (ICT)
8. Organization and Leadership Skills (Clubs)

9. Health and Physical Education:
     9.1 Sports/Indigenous Sports
     9.2 NCC/NSS
     9.3 Scouting and Guiding
     9.4 Swimming
     9.5 Gymnastics
     9.6 Yoga
     9.7 First Aid
     9.8 Gardening/Shramdaan

Continuous and Comprehensive Evaluation
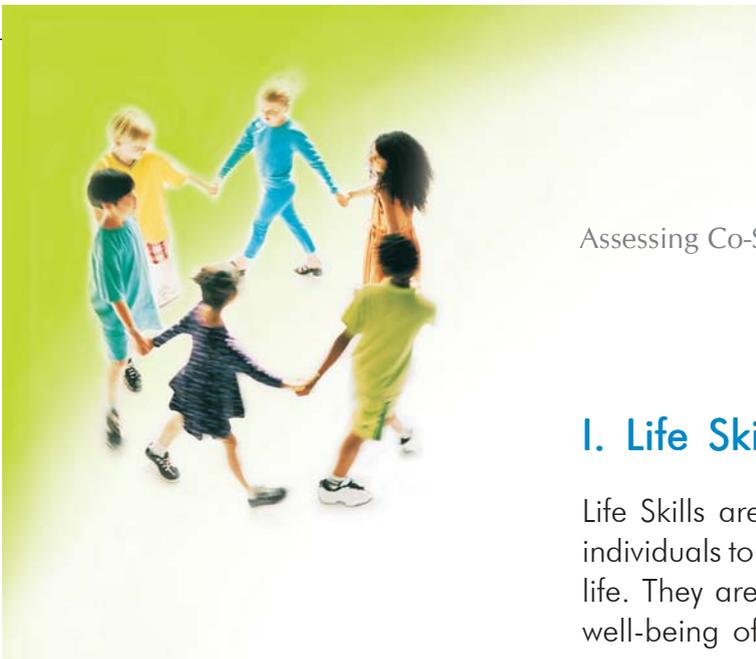
I. Life Skills (Part 2A)

Life Skills are abilities for adaptive and positive behaviour that enable individuals to deal effectively with the demands and challenges of everyday life. They are abilities that facilitate the physical, mental and emotional well-being of individuals.

'Adaptive' means that a person is flexible in approach and able to adjust to different circumstances.

'Positive behaviour' implies that a person is forward looking and finds a ray of hope, solution and opportunities even in difficult situations.

Life Skills are abilities that will help students to be successful in living a productive life. Learning and practising Life Skills help students to improve their personal and social qualities.

There are large number of Life Skills emanating from various sources, and the total list is very large. For practical purposes and for feasibility, we have chosen ten Life Skills as given in the table below. Although a life skill may transgress more than one domain, each life skill has a dominant feature. Further, there are overlapping processes, e.g. problem solving and decision making. All problem solving involves decision making.

We have classified the life skills according to their dominant features in the following table.

Life Skills Matrix

Life Skills	Thinking	Social	Emotional
1. Self-Awareness	--		
2. Problem Solving	--		
3. Decision Making	--		
4. Critical Thinking	--		
5. Creative Thinking	--		
6. Interpersonal Relationships		--	
7. Effective Communication		--	
8. Empathy		--	
9. Managing Feelings/Emotions			--
10. Dealing with stress			--

Continuous and Comprehensive Evaluation

Although all or most of the Life Skills can be measured by standardized tests and inventories, such skills can also be reasonably assessed on the basis of displayed behaviour by the student. We have provided a few sampled observable behaviours pertaining to thinking, social and emotional skills.

As mentioned earlier, students will be assessed in these domains on the basis of their overt behaviour. We will take three different courses of action to build in objectivity and reliability:

- Day-to-day observation
- Rating at the end of the term
- Annual Assessment

Day to day observation: Please keep 'a watchful eye' on your student, whenever you notice a significant behaviour that may shed light on any one of the thirty (30) descriptors under the three domains. Record it in your diary. It should not be time bound; it should be as and when such a thing happens. Here are a few examples.

- Rohan shared his tiffin with his friends today
- Jiten gulped his tiffin quickly and then looked at others
- Though Sara did not figure in the list of awardees, she was all smiles and helped me in organizing the event
- George visited his sick classmate at home and briefed him about the work done in class as well as the assignments
- Sarbari differed with my viewpoint; she argued but never got irritated; but Shanti got angry because Sarbari was arguing with me
- Mohammad connected the computer to the LCD projector, set the screen so proficiently that I could use it in the classroom

While you rate such behaviour, please remember '5' stands for desirable behaviour and less than '1' for the undesirable one. For example in the above case Sarbari gets '5', but Shanti gets '2' or '1'. Although you would observe on a day to day basis and record, you would accumulate it at the end of the term and then convert into a grade.

All these statements reveal certain styles of behaviour of a student, e.g. effective communication of Sarbari, excellent interpersonal skills exhibited by Mohammad and Sara's ability to manage her emotions, etc.

Continuous and Comprehensive Evaluation

Also refer to the Life Skill's Manual for teachers brought out by CBSE for classes IX and X. It has a few exemplar activities for all Life Skills which teachers can do with their students. Others can also be created by the teachers themselves.

Rating at the end of the term: In the following pages, we present the behavioural descriptors for each of the Co-Scholastic dimensions. Human behaviour, as you know, is not a binary function; does not appear in 'yes' or 'no'. It differs in degrees. Hence, rate each behaviour on five-point scale once in a session—

Grade	Grade Points
A	4.1 - 5.0
B	3.1 - 4.0
C	2.1 - 3.0
D	1.1 - 2.0
E	0 -1.0

How to calculate Grades in Co-Scholastic Areas

1. Each student will be graded on each of the 03 Life Skills, Work Education, Visual and Performing Arts, 03 Attitudes, Values, 02 Co-curricular Activities and 02 Health and Physical Education (HPE) activities.
2. Maximum score for each Life Skill, Work Education and Visual and Performing Arts and Attitudes is 50, for Values is 200 and for Co-curricular Activities and HPE is 50.
3. Before assigning the Grades on each component using the conversion table, please calculate the average or grade points by dividing the total score obtained by a student by number of items in that component. For example, for a student who has a score of 35 in Thinking Skills; you need to divide it by the number of descriptors, i.e. 10; the average or grade point is 3.5; hence grade is B.
4. A Sample Sheet to calculate grades in Co-Scholastic Areas is given after the discussion of the indicators.

(i) Thinking Skills

Sl.No.	Descriptors	Score out of 5
1.	Knows his/her strengths and weaknesses	
2.	Demonstrates internal/External locus of control	
3.	Knows her/his way of dealing with people, events, and things	

4.	Recognizes and analyzes a problem	
5.	Collects relevant information from reliable sources	
6.	Evaluates each alternative for advantageous and adverse consequences of each alternative solution	
7.	Chooses the best alternative (takes decision); Shows originality and innovation	
8.	Demonstrates fluency in ideas – get lots of new ideas	
9.	Open to modification and flexibility in thinking	
10.	Demonstrates divergent (out-of-the-box) thinking	
Total		
Average/Grade		

(ii) Social Skills

Sl.No.	Descriptors	Score out of 5
1.	Helps classmates in case of difficulties in academic and personal issues	
2.	Seeks feedback from teachers and peers for self-improvement	
3.	Actively listens and pays attention to others	
4.	Sees and appreciates others' point of view.	
5.	Draws attention of others when speaking in the class, school assembly and other occasions	
6.	Explains and articulates a concept differently so that others can understand in simple language	
7.	Sensitive to the needs of differently abled students	
8.	Demonstrates Leadership Skills, like responsibillity, initiative etc.	

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9.	Demonstrates awareness of norms and social conducts and follows them	
10.	Helps develop skills and competencies in others instead of making them dependent	
Total		
Average/Grade		

(iii) Emotional Skills

Sl.No.	Descriptors	Score out of 5
1.	Is optimistic	
2.	Believes in self–self confidance and thinks "I can"	
3.	Manages Scholastics, Co-Scholastics and personal challenges	
4.	If unsuccessful, gracefully takes the task again	
5.	Seeks help of teachers and classmates in difficult situations	
6.	Does not get into unhealthy habits when under stress	
7.	Maintains decency under stressful interpersonal situations	
8.	Expresses feelings and reactions frankly in the class	
9.	Supports and empathises with others	
10.	Politely declines - 'says no', when he/she does not want to undertake a task	
Total		
Average/Grade		

2. Work Education (Part 2B)

Sl.No.	Descriptors	Score out of 5
1.	Has a collaborative approach towards the process of learning	
2.	Is Innovative in ideas	
3.	Plans and adheres to timelines	
4.	Is Involved and motivated	
5.	Demonstrates a positive attitude	
6.	Is helpful, guides and facilitates others	
7.	Demonstrates an understanding of correlation with real life situations	
8.	Has a step-by-step approach to solving a problem	
9.	Has clear understanding of output to be generated	
10.	Is able to apply the theoretical knowledge into practical usage	
Total		
Average/Grade		

3. Visual and Performing Arts (Part 2C)

(i) Visual Arts

Sl.No.	Descriptors	Score out of 5
1.	Takes an innovative and creative approach	
2.	Shows aesthetic sensibilities	
3.	Displays observation skills	
4.	Demonstrates interpretation and originality	
5.	Corelates with real life	
6.	Shows willingness to experiment with different art modes/ mediums	

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7.	Sketches or paints	
8.	Generates computer animation	
9.	Demonstrates proportion in size and clarity	
10.	Understands the importance of colour, balance and brightness	
Total		
Average/Grade		

(iv) Performing Arts

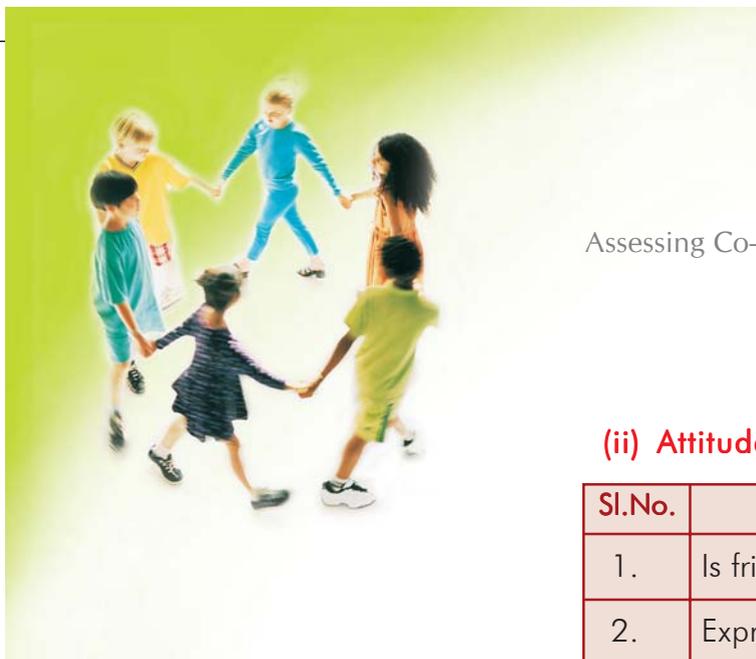| Sl.No.	Descriptors	Score out of 5
1.	Sings and plays instrumental music	
2.	Dances and acts in drama	
3.	Awareness and appreciation of works of artists	
4.	Demonstrates appreciation skills	
5.	Participates actively in aesthetic activities at various levels	
6.	Takes initiative to plan, create and direct various creative events	
7.	Reads and shows a degree of awareness of particular domain of art	
8.	Experiments with art forms	
9.	Shows a high degree of imagination and innovation	
10.	Displays artistic temperament in all of his/her actions in school and outside	
Total		
Average/Grade		

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4a. Attitudes (Part 2D)

Attitude is an important dimension in students' lives. In this section, you will assess students' attitude with respect to the teachers, school-mates, and school programmes. You will follow the same practice as in the assessment of Life Skills.

(i) Attitudes towards Teachers

Sl.No.	Descriptors	Score out of 5
1.	Shows decency and courtesy to teachers inside and outside the class	
2.	Demonstrates positive attitudes towards learning	
3.	Takes suggestions and criticism in the right spirit	
4.	Respects teachers' instructions	
5.	Accepts norms and rules of the school	
6.	Communicates his/her thoughts with teachers	
7.	Confides his/her problems with teachers	
8.	Shows honesty and sincerity towards teachers	
9.	Feels free to ask questions	
10.	Helpful to teachers	
Total		
Average/Grade		

(ii) Attitude towards School-mates

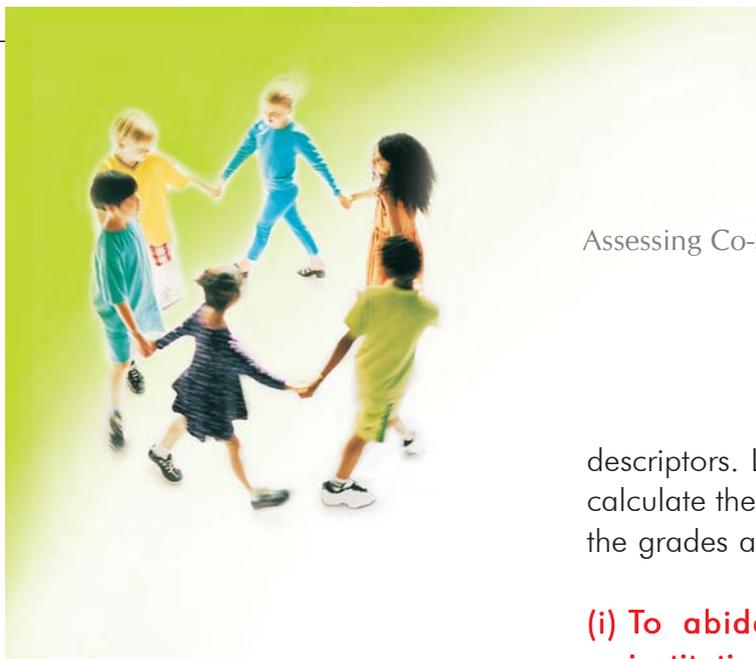| Sl.No.	Descriptors	Score out of 5
1.	Is friendly with most of the classmates	
2.	Expresses ideas and opinions freely in a group	
3.	Is receptive to ideas and opinion of others	
4.	Treats classmates as equals, without any sense of superiority or inferiority	
5.	Sensitive and supportive towards peers and differently-abled school-mates	
6.	Treats peers from different social, religious and economic background without any discrimination	
7.	Respects opposite gender and is comfortable in their company	
8.	Does not bully others	
9.	Deals tactfully with the peers having aggressive behaviour.	
10.	Shares credit and praise with team members and peers	
Total		
Average/Grade		

(iii) Attitude towards School Programmes and Environment

Sl.No.	Descriptors	Score out of 5
1.	Attaches a lot of importance to school activities and programmes	
2.	Participates in school activities relating to improvement of environment	
3.	Enthusiastically participates in school programmes	
4.	Shoulders responsibility happily	
5.	Confronts any one who criticises school and school programmes	
6.	Insists on parents to participate/witness school programmes	
7.	Participates in community activities relating to environment	
8.	Takes care of school property	
9.	Sensitive and concerned about environmental degradation	
10.	Takes initiative in planning activities for the betterment of environment	
Total		
Average/Grade		

4b. Value Systems (Part 2D)

Values are determining qualities of life. There is a very large body of knowledge and lists of values. Article 51A of the Indian Constitution—Fundamental Duties – provides the most comprehensive list of values that should be inculcated by every Indian citizen. There are 10 principles; we have identified four behaviour as descriptors for each – in all 40

descriptors. Like the previous ones, please assign a score out of 5 and calculate the average across the 40 behaviour as descriptors and assign the grades as per the scheme mentioned earlier.

(i) To abide by the constitution and respect its ideals and institutions, the National Flag and the National Anthem

Descriptors	Score out of 5
a. Is aware of the Directive Principle and Fundamental Rights enshrined in the Constitution	
b. Sings National Anthem and patriotic song with decorum	
c. Attends hoisting of National Flag with respect and decorum	
d. Understands the meaning of tri colour and the Ashok Chakra	

(ii) To cherish and follow the noble ideals which inspired freedom struggle

Descriptors	Score out of 5
a. Takes interest in the national freedom struggle	
b. Displays pride in being an Indian citizen	
c. Participates in celebration of Republic Day and Independence Day with enthusiasm	
d. Reads biographies of freedom fighters	

(iii) To uphold and protect the sovereignty, unity and integrity of India

Descriptors	Score out of 5
a. Stays alert and raises voice against divisive forces	
b. Respects armed forces and paramilitary forces	
c. Respects Indian diversity	
d. Maintains peace and love	

(iv) **To defend the country and render national service when called upon to do so**

Descriptors	Score out of 5
a. Shows a proactive and responsible behaviour during crisis	
b. Helpful towards disadvantaged section of the society	
c. Renders social work enthusiastically	
d. Actively participates in community development programmes of the school	

(v) **To promote harmony and spirit of unity, brotherhood amongst all the people of India transcending religious, linguistic and regional or sectional diversities; to remove the practices derogatory to the dignity of women**

Descriptors	Score out of 5
a. Respects opposite gender	
b. Respects teachers from different religious and linguistic communities	
c. Takes up issues in case of indignity to women	
d. Kind and helpful towards classmates and people of community	

(vi) **To value and preserve the rich heritage of our culture**

Descriptors	Score out of 5
a. Reads and discusses about the Indian culture and heritage	
b. Appreciates diversity of cultures and social practices	

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c. Treasures the belongings of the school, community and the country with a sense of pride	
d. Protects and prevents defacing of national monuments	

vii) To protect and improve natural environment

Descriptors	Score out of 5
a. Shows compassion for living creatures	
b. Takes active interest in maintaining flora, fauna, plants and gardens	
c. Participates in movements for protecting endangered animals and green cover	
d. Takes care to clean classroom, school and neighbourhood	

(viii) To develop scientific temper and the spirit of enquiry

Descriptors	Score out of 5
a. Experiments to find new solutions	
b. Analyzes and critically evaluates events on the basis of data and information	
c. Questions and verifies knowledge	
d. Explains processes and products logically	

(ix) To safeguard public property and to abjure violence

Descriptors	Score out of 5
a. Takes care of school furniture and property	
b. Resists defacing and decimation of public property	
c. Does not fight and harm others	
d. Does not affiliate to groups and communities who believe and promote violence	

**(x). To strive towards excellence in all spheres of individual and collective activity which leads to higher level of performance**

Descriptors	Score out of 5
a. Makes an effort to improve academic performance in school	
b. Makes special efforts to improve in co-scholastic areas	
c. Strives to identify potential and actualize with effort	
d. Aspires and strives for excellence in education and life	

Total Score ....

Average Score/Grade..
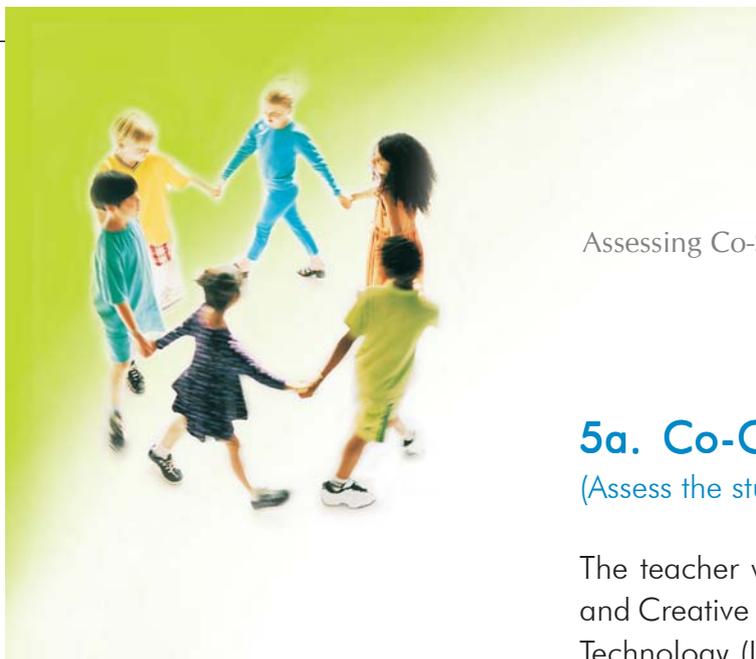
5a. Co-Curricular Activities (Part 3A)
(Assess the student in any two areas)

The teacher will record the two activities from the following (i) Literary and Creative Skills (ii) Scientific Skills (iii) Information and Communication Technology (ICT) (iv) Organizational and Leadership Skills.
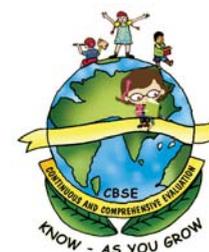
(i) Literary and Creative Skills

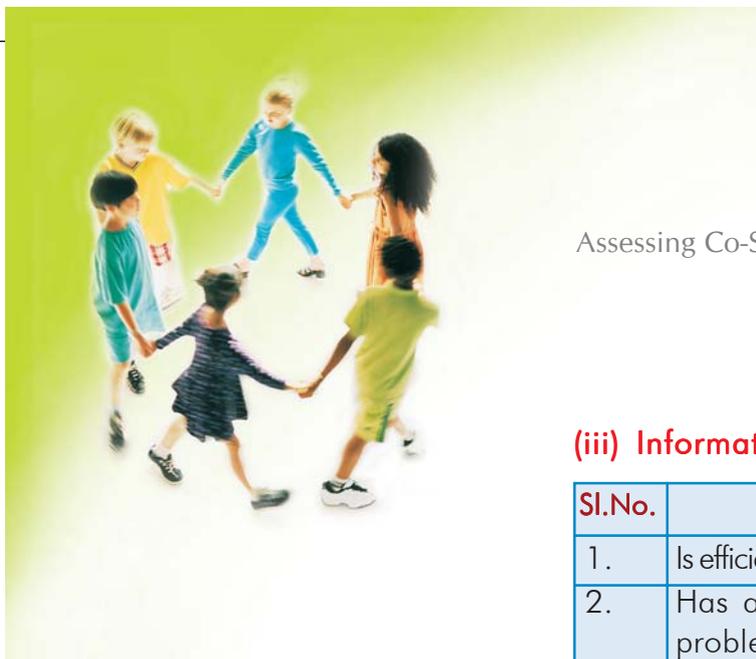| Sl.No.	Descriptors	Score out of 5
1.	Composes poems or lyrics	
2.	Writes short stories	
3.	Writes literary criticisms	
4.	Participates actively in literary and creative activities at school, inter-school, state, national and international levels	
5.	Plans and organizes literary events like debates, recitation, book clubs etc.	
6.	Reads books and shows a high degree of awareness in the field of literature	
7.	Appreciates well written or spoken pieces representing various genre's (prose, poetry, plays)	
8.	Expresses ideas and opinions creatively in different forms	
9.	Displays originality of ideas and opinions	
10.	Is able to inspire others and involve a large part of the school and community in different events	
Total		
Average/Grade		

(ii) Scientific Skills

Sl.No.	Descriptors	Score out of 5
1.	Verifies existing knowledge before accepting	
2.	Does not get carried away by rumours and media reports	
3.	Tries to find new and more effective solutions to problems	
4.	Conducts experiments with efficiency and effectiveness	
5.	Takes keen interest in scientific activities in laboratory and field-based experiment at school, inter-school, state, national and international level	
6.	Takes the initiative to plan, organize and evaluate various science-related events like quizzes, seminars, model making etc.	
7.	Shows a high degree of curiosity and reads science related literature	
8.	Is a keen observer and is able to make decisions	
9.	Displays good experimental skills and a practical knowledge of every day phenomena	
10.	Makes use of technology in making projects and models	
Total		
Average/ Grade		

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(iii) Information and Communication Technology (ICT)

Sl.No.	Descriptors	Score out of 5
1.	Is efficient in handling IT equipments and gadgets	
2.	Has a step by step approach to solving a problem	
3.	Is able to apply theoretical knowledge into practical usage	
4.	Plants and adheres to activities and project time lines	
5.	Takes initiative in organizing and participating in technology related events e.g IT fairs, competitions etc.	
6.	Takes keen interest in computer related activities	
7.	Is helpful, guides and facilitates others.	
8.	Is a keen observer and is able to make decisions	
9.	Is innovative in ideas	
10.	Adheres to ethical norms while using technology	
Total		
Average/ Grade		

(iv) Organizational and Leadership Skills

Please record the club in which the student is participating.

Sl.No.	Descriptors	Score out of 5
1.	Helps and organizes events in that capacity	
2.	Demonstrates ability to work in teams	
3.	Can organize work groups in short time	
4.	Actively participates in School Clubs, (e.g. Science Club, Eco Clubs, Health and Wellness Clubs, Heritage Club, Disaster Management, AEP and other clubs)	
5.	Represents class, school and inter-school at various other levels	

6.	Takes initiative to plan and manage different kinds of events like festivals, environment week, fund raisers, seminars, quizzes, arranging morning assemblics etc.	
7.	Exhibits collaboration and co-ordination skills while executing the tasks	
8.	Displays originality of ideas and the ability to see them through	
9.	Delivers assigned jobs with responsibility	
10.	Is a keen observer and is able to take decisions	
Total		
Average/Grade		

5b. Health and Physical Education(Part 3B)

Proper development of the body is essential for the healthy growth of the mind. It is therefore, necessary that the students should be examined by qualified doctors once in the session along with a follow-up session. If this facility is not available general information about health i.e. height & weight, etc. could be obtained by the teacher. There are already age and gender related charts of height and weight. Teachers should use these charts and note observations on the basis of entries he/she makes on the Report Book / Certificate of School Based Assessment (SBA).

In addition to this general information, physical disabilities and diseases e.g. defective vision, maintenance of teeth, deafness, long absence due to illness, which the teacher can detect at one's own level, should also be noted. He/she should also bring any noticeable deformity of the child in the notice of the parents. In the assessment of Health Status, the recordings of height shall be in centimeters and the weight shall be mentioned in kilograms. The Health Manuals (in four volumes) brought out by CBSE must be referred to and the graded activities taken up as part of the curriculum in schools. Moreover features of Health Promoting Schools, format of Health Cards and the themes and Annexures must be adhered to. The suggested format of Health Cards has also been given in the Comprehensive School Health Manual (Volume I). The Health Card records the history in terms of health for all learners from the time of admission in the school, till the time they leave.

Continuous and Comprehensive Evaluation
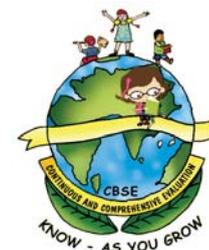
While the area of Physical Education of the curriculum will be judging the skills and proficiencies acquired by the students in games, sports etc. the area of Health Education will concentrate on those aspects which constitute the criteria for determining the physical health of an individual. The following aspects will be taken care of in this area.

Health Education needs to be assessed on the basis of:

- Basic understanding about health
- Physical fitness
- Attitude development
- Participation in Health and Wellness Club activities

The teachers responsibility in this area will be limited to general observations. These must be communicated to the parents and guardians for all students.

We divided this domain into two segments. One is rating certain Health and Physical Education related behaviours, and second is information on actual participation in Physical Education, Sports and Games. General descriptors for HPE are given for appraising a student on any specific activity, these general guideline may be modified accordigly.
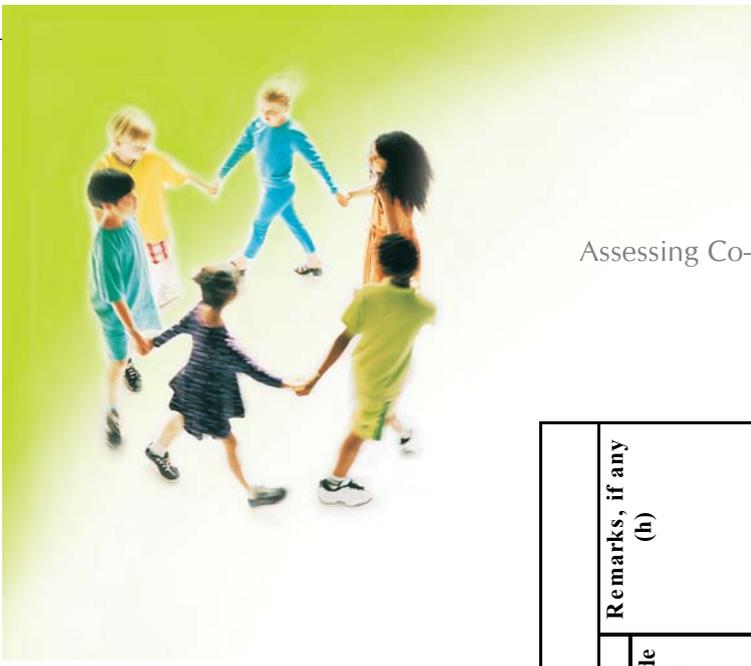
Sl.No.	Descriptors	Score out of 5
1.	Demonstrates physical fitness and agility	
2.	Displays courage and determination	
3.	Demonstrates flexibility of the body	
4.	Demonstrates sportsman spirit	
5.	Follows all safety norms of games and sports	
6.	Follows rules of the games	
7.	Has undergone training and coaching in the chosen sports and games items	
8.	Makes strategic decisions within the games	
9.	Organizes and provides leadership in this area	
10.	Takes initiative and interest in Physical Education and wellness	
Total		
Average/Grade		

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Health and Physical Activities

Participation and Performance: Instead of rating, the following information should be entered into student portfolio as descriptive statements. Choose any two of the following activities.

Sl.No.	Activities	Participation / Achievement Record				
		Activity done	Inter-class	Inter-school	Inter-district	Inter-state and beyond
1.	Sports/ Indigenous sports (mention item/s)					
2.	NCC					
3.	NSS					
4.	Scouting and Guiding					
5.	Swimming					
6.	Gymnastics					
7.	Yoga					
8.	First Aid					
9.	Gardening					
10.	Shramdaan					

Annual Assessment: To reinforce day-to-day observation and quarterly behaviour rating, standardized tests and inventories will be administered either half-yearly or annually depending upon the attribute under assessment. We will deal with these in detail in the next chapter.

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Sample Sheet to calculate grades in Co-Scholastic Areas

S.No.	Areas (a)	No. of Descriptors (b)	Max. score per descriptor (c)	Max. Score (d)	Total Score Obtained (e)	Example Average/ Grade Point (f =e/b)	Grade (g)	Remarks, if any (h)
		Life Skills (Grade Point= Total Score divided by 10)						
1	Thinking Skills	10	5	50	45	4.5	A	
2	Social Skills	10	5	50	30	3.0	C	
3	Emotional Skills	10	5	50	40	4.0	B	
	Work Education / Visual and Performing Arts / Attitudes (Grade Point = Total Score divided by 10)							
4	Work Education	10	5	50	45	4.5	A	
5	Visual & Performing Arts	10	5	50	38	3.8	B	
6	Attitudes towards teachers	10	5	50	36	3.6	B	
7	Attitudes towards schoolmates	10	5	50	12	1.2	D	
8	Attitudes towards school programmes and environment	10	5	50	10	1.0	E	
	Values (Grade Point = Total score divided by 10x4=40)							
9	Values	10 X 4 descriptors	5	200	168	4.2	A	
	Activities (any two) (Grade Point = Total score divided by 10)							
10	Activity 1 (please specify)	10	5	50	24	2.4	C	
11	Activity 2 (please specify)	10	5	50	30	3.0	C	
	Health and Physical Education (any two) (HPE 2: Grade Point = Total Score divided by 10)							
12	HPE 1 (please specify)	10	5	50	30	3.0	C	
13	HPE 2 (please specify)	10	5	50	24	2.4	C	

Grade	Grade Points
A	4.1 - 5.0
B	3.1 - 4.0
C	2.1 - 3.0
D	1.1 - 2.0
E	0 -1.0

Note:

1. Each student will be graded on each of the 03 Life Skills, Work Education, Visual and Performing Arts, 03 Attitudes, Values, 02 Co-curricular Activities and 02 Health and Physical Education (HPE) activities.

2. Maximum score for each Life Skill, Work Education, Visual and Performing Arts and Attitudes is 50, for Values is 200 and for Co-curricular Activities and HPE is 50.

3. Before assigning the Grades on each component using the conversion table, please calculate the average or grade points by dividing the total score obtained by a student by number of items in that component.

Continuous and Comprehensive Evaluation

Tools and Techniques of Evaluation

Methods of Assessment

There are two main purposes of evaluation. One is to provide development feedback to the learner, and the other is to qualitatively grade a learner on the basis of his/her learning outcome against a set of norms. Evaluation, hence, is an important decision making situation where a teacher is involved in a judgement. The quality of the decision depends on the quality of the data and information collected about the learner's learning accomplishments. In turn, quality of data and information depends upon the quality of tools and techniques of data gathering (Refer to Annexure 1).

Hence, tools and techniques of evaluation are important components of the process of Continuous and Comprehensive Evaluation (CCE).

Interpretation of gathered information needs to be given in numerical scores, grades as well as in qualitative terms.

In CCE, judgements should be made not just on scholastic aspects but also on co-scholastic aspects which depend to a large extent on the learning

environment and learning culture of an institution. As far as interpretation is concerned, attainment can be measured at different levels.

- With reference to the learner himself/herself – his/her current state of progress, strengths, learning gaps, etc.
- With reference to the criteria - the expected level of learning keeping in view the required skills.

Tools are primarily instruments of collecting data and information. For example, questions, observations, tests, inventories, record or document analysis, etc. are tools. Tools, in the context of CCE, require situations for application. For example, observation as a tool needs situations like debating competition, engagement in a project activity, etc. A teacher can observe a student while he is debating or working on a project, assignment or questions in a written examination.

Although it is difficult to precisely define and separate out tools from techniques, for the operational purposes of CCE, we may classify situations which are occurring either naturally or contrived for assessment – as techniques.

A sample list of tools and techniques that can be used in CCE are stated below:

Tools	Techniques
1. Questions	1. Examination
2. Observation	2. Assignments
3. Tests and inventories	3. Quizzes and Competitions
4. Checklist	4. Projects
5. Rating scale	5. Debates
6. Anecdotal records	6. Elocution
7. Document analysis	7. Group discussions
8. Portfolio	8. Club activities
	9. Experiments
	10. Research

Continuous and Comprehensive Evaluation

Multiple tools can be used for assessment. Similarly, more than one assessment tool can be used in several assessment techniques. In the following pages, we will deal primarily with the set of tools of assessment in the context of techniques.

Tools can be-

- Standardized
- Non-standardized

Standardized tools have the attributes of objectivity, reliability, validity and quality of discriminating between a high and low performer. Different types of validities, e.g. construct, content and concurrent validity take care of balance and relevance. Speed is a factor in some tests, but not a common element in all tests. Psychological tests and inventories like Intelligence and aptitude tests, Interest and study habit inventories, Attitude scales, etc. have those properties. Non standardized tools are teacher made tests, rating scale, observations, interview schedules, questionnaire, opinionnaires, checklists, etc.

Some of the tools and techniques are:

1. Questions

Questions are the most commonly applied assessment tool for finding out what children know, think, imagine, and feel. A teacher, in the course of teaching, comes to know of learning difficulties in children by asking questions. Questions as a tool are primarily used in examinations.

(a) Characteristics of a good question:

(i) Objective based:

A question should be based on a pre-determined objective and should be framed in such a way that it tests the objective effectively.

(ii) Instructions:

It should specify a particular task through the instructions. For this, appropriate directional words should be used and structured situations should be given.

(iii) Scope:

It should indicate the limit and the scope of the answer (length of the answer) in accordance with the estimated time and marks allotted to it.

(iv) Content:

The question should assess the same area of content which it intends to assess.

(v) Language:

A good question is framed in a clear, precise and unambiguous language, well within the comprehension of the students.

(vi) Difficulty level:

A question should be drafted/framed keeping in view the level of the students for whom it is meant. The difficulty of the question depends upon the content area, ability to be tested and the time available to answer it.

(vii) Assessing power:

A good question must assess between the bright students and the other students.

(viii) Delimited scope of the answer:

The language of the question should be specific and precise so that the scope of the expected answer is clearly delimited or defined.
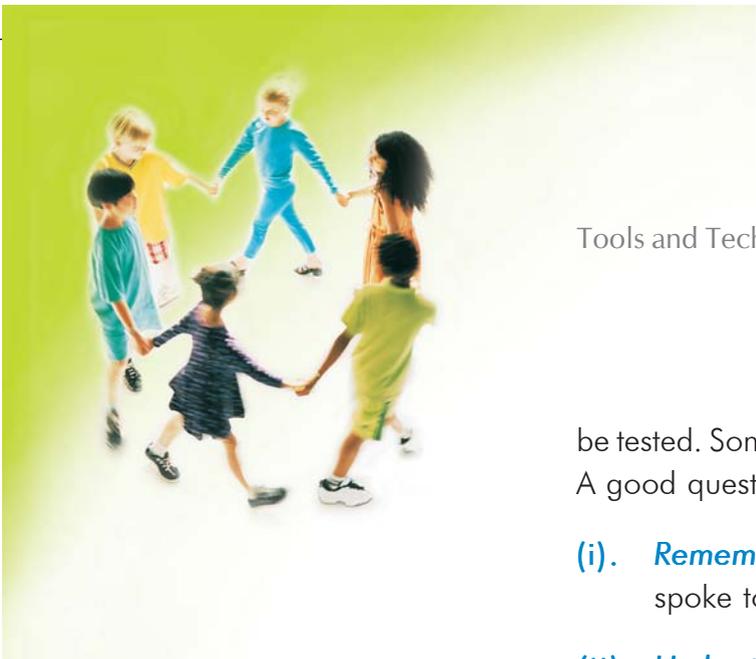
(ix) Value points:

Value points or marks carried by a question as a whole and its sub-parts should be clearly mentioned.

(b) Form of questions:

The form of question depends on the objective and the content area to
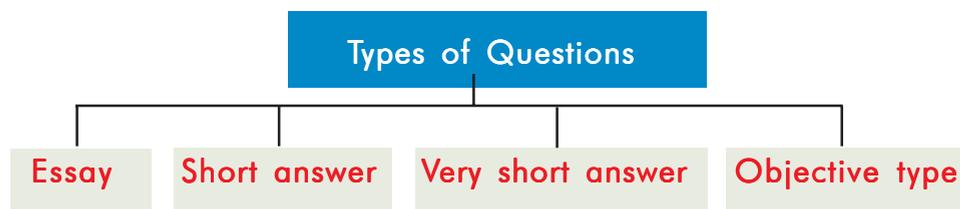
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be tested. Some forms are better than the others for testing certain abilities. A good question paper should have the questions based on :-

(i). *Remembering* - e.g. How many…? , Can you name…?, Who spoke to…?, What happened after...?

(ii). *Understanding* - e.g. How would you explain…..?, Who do you think…..?, Can you clarify….?

(iiI). *Applying* - e.g. Which factors would you change if…?, From the information given, can you develop a set of instructions about…?, Do you know of another instance where…?

(iv). *Analysing* - e.g. Which events could not have happened...?, How is … similar to…?, Why did….changes occur?, What was the turning point?, What was the problem with…?

(v). *Evaluating* - e.g. Is there a better solution to…?, What are the alternatives...?, What are the pros and cons of…?, How effective are…?, Do you think …is a good or bad thing?

(vi). *Creating* - e.g. Can you design a….to…?, What would happen if…?, Can you see a possible solution to…?, Can you develop a proposal which would..?

(c) Type of Questions

The answer may vary from one word to several paragraphs. Such type of questions are also called as *'free-response'* questions. Supply-type questions may be divided into four categories.

Types of Questions			
Essay	Short answer	Very short answer	Objective type

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(i) Essay Type Questions:

The term essay implies a written response which is a sustained form of writing. The student is allowed to have freedom with respect to wording, length and organization of the answer. A distinction should be made between the essay type question used to measure knowledge and the essay type question employed to test writing skills in languages which is called a writing task.

There are many abilities which may not be tested through any other form of question but only by the essay type question. These abilities are:

- Select relevant facts from the body of acquired knowledge

- Identify and establish relationships between various aspects of knowledge

- Weigh the proof with respect to implications of the gathered information

- To organize, analyse, interpret facts and other types of information to draw inferences

- Adopt an indigenous or original approach to solve a given problem

- Defend one's point of view through facts, data and suitable arguments

- Critically examine the degree of adequacy, accuracy and relevance of the available information in a given situation

- Appreciate a problem at both the micro and macro levels

- Conceive, design and suggest new and innovative approaches for tackling a given problem

Constructing Essay Type Questions:

Essay type questions usually begin with such terms as *'discuss'*, *'explain'*, *'evaluate'*, *'define'*, *'compare'*, *'contrast'*, *'describe'*, etc. Essay type questions are good when the group to be tested is small and limited
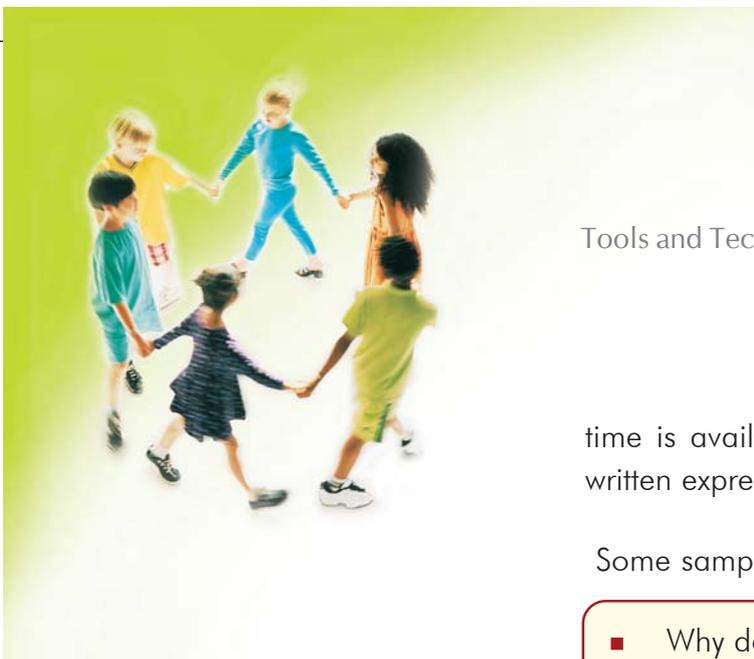
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time is available for test preparation. It is also quite suitable to test written expression.

Some sample essay type questions are:

- Why do sandy soils not hold enough water? (Question Form)

- Explain any of the four sense organs and draw their diagrams (Statement Type)

Compare both the questions:

- Give reasons why Roosevelt won the 1932 presidential election in the USA.

- The most important reason why Roosevelt won the 1932 presidential election was Hoover's unpopularity. Do you agree? Explain your answer.

You will notice that -
  The first encourages rote-learning and does not call upon the skills of independent thoughts, analysis and evaluation required. The second assumes vital importance for all and not simply the gifted few.

(ii) Short Answer Questions:

Essay type questions suffer from lack of objectivity and reliability while objective type questions cannot be used for testing certain aspects of growth like the ability to express, summarise and organize the ideas in a precise manner. Short answer questions are a good via-media between the two extremes. If understood and framed properly, they have the advantages of both the objective type and essay type questions.

Some characteristics of short answer questions are:

- Short questions can be used profitably in all tests

- It can be used to test almost all the objectives of teaching

- It helps students to develop the ability of organising and selecting relevant facts

- It can be scored more objectively than the essay type questions and thereby ensure reliability

- These questions help in covering more syllabus because more number of questions can be put in lieu of just one-essay type question. This improves the validity of the question paper

(iii) Very short answer questions:

Characteristics of very short answer questions are:

- Very short answer questions are those which have one specific testing point and can be marked quite objectively

- More content can be tested through these questions and more reliability and validity can be ensured

- It helps in testing knowledge of the examinee by asking him to supply a word, phrase, figure or a sentence which is required for answering the questions

- It can be answered in one word to one sentence

- It mostly takes one to two minutes to answer and the mark allotted may be one mark

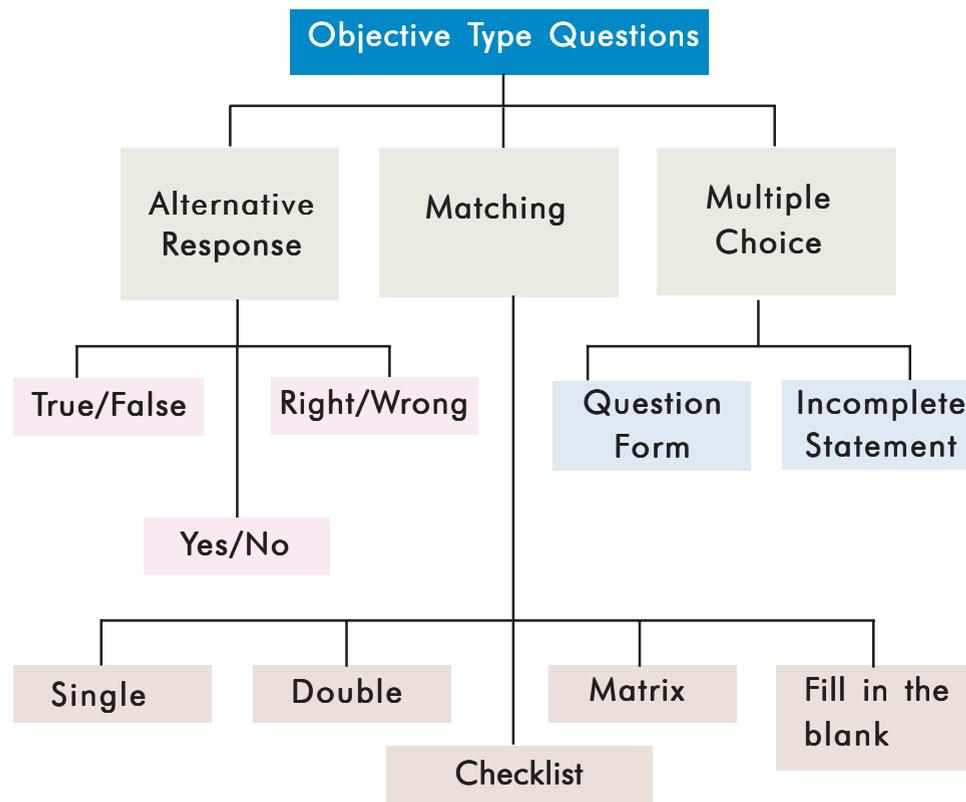- Very short answer questions can be used profitably in all the school subjects
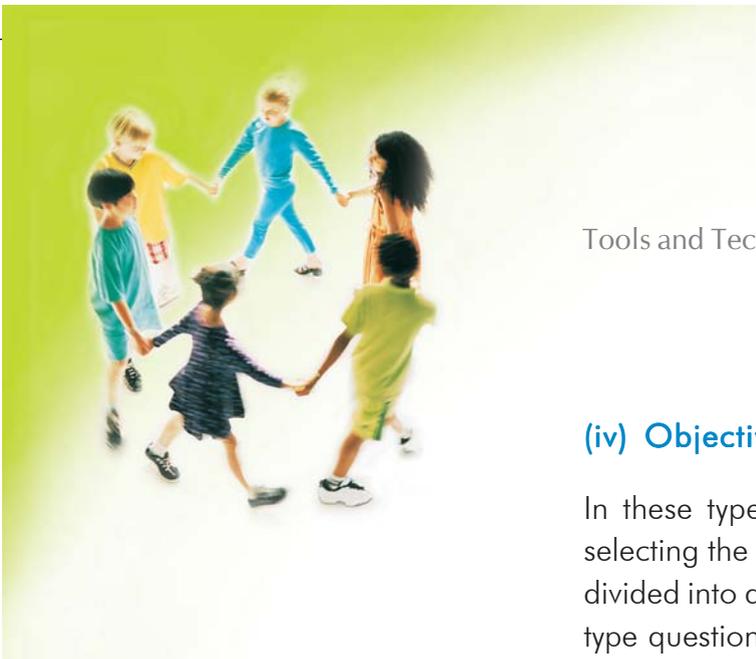
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(iv) Objective Type Questions

In these type of questions students have to answer the questions by selecting the correct answer among the provided choices. These may be divided into alternative response type, matching type and multiple choice type questions, etc.

```
                    Objective Type Questions
        ┌────────────────────┼────────────────────┐
  Alternative            Matching            Multiple
   Response                                   Choice
   ┌──────┴──────┐           │           ┌──────┴──────┐
True/False  Right/Wrong      │       Question    Incomplete
                             │         Form      Statement
        Yes/No               │
        ┌──────┬─────────────┼────────────┬──────────┐
     Single  Double        │            Matrix    Fill in the
                       Checklist                     blank
```

Some examples of each type of question is mentioned under each head:-

(a)   Alternative Response Type:

In these type of questions students have to select one out of two alternatives as a correct answer. The different type of alternative response questions are as under:

(i) True-False or Yes-No Question:

In this type of question a statement is given and the candidate is asked whether it is true or false (T/F). True/False questions are easy to construct and score. They provide a fairly reliable measure of students understanding particularly in the classroom testing.

Example:

- Both animals and plants are living things

- All animals eat small animals

(ii) Right /Wrong type or Yes/No type :

Put tick (✔) mark if statement is Right and (X) if Wrong.

- Liquids do not have a definite shape

- Ice is lighter than water

(b) Matching:

In matching type questions there are two columns. The words or statements given in column one are to be matched with the answers given in column two. The matching type question may be of the following:

(i) Single Matching:

In this type of question two columns are used. In the left column stimuli are presented whereas in the right column responses are given. Students are asked to match the response with a given stimulus.

Example:

Match the words given in Column A with Column B to make a correct pair. *(Simple)*

Sl.No.	Column A	Column B
1	Morning	Stars
2	Night	24 hours
3	Day	Sun light

Example:

Match the words given in column A with the meanings given in column B. *(Difficult)*

A	B
Barber	One who makes bread/biscuits, etc.
Waiter	One who is incharge of a place
Baker	One who cuts people's hair
Architect	One who serves food in a hotel
Caretaker	One who designs buildings, bridges etc.

(ii) Double Matching:

In this type of item, one list of stimuli is provided to test two areas of knowledge. So three columns are used instead of two columns. In the middle column, stimuli is given and in both left and right columns, two sets of responses are provided.

■ There are three columns i.e. I, II and III. In the column II there is a list of four animals while the Column I provides animal behaviour and Column III gives the type of foods they usually eat.

Put appropriate letter and number in Column I and III.

| Column I (Behaviour)	Column II (Animal)	Column III (Food)
1. Likes daylight but active at night	a) Rat	A. Live insects
2. Likes daylight and active during the day	b) Moth	B. Flower nectar
3. Does not like daylight	c) House Fly	C. Flesh of animals
4. Does not like daylight but active in day and night	d) Lizard	D. Plant leaves
		E. Bread
		F. Load of organic matter
		G. Wood
		H. Snakes

(iii) Checklist :

In this type of item, students are provided two or three alternatives as the checklist, to make decisions about a number of statements on the basis of the checklist provided.

Advantages of Checklist

- Quick and easy to implement.
- Provides specific information about specific objectives.
- Can point towards a trend of how and when skills have been acquired by the student as well as a group of students.
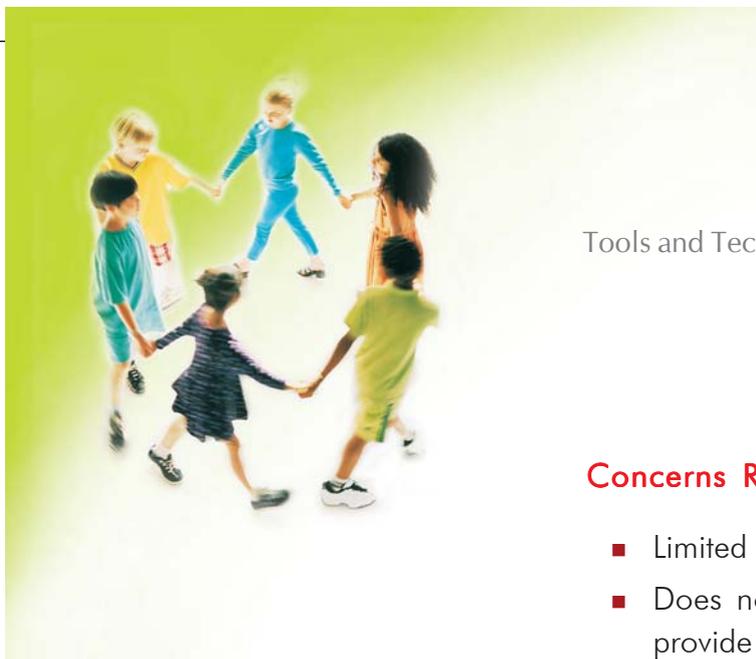
Concerns Regarding Checklist

- Limited information only indicating presence of a skill
- Does not indicate student's response to different situations or provide specific examples of responses
- Does not provide information about context
- Can at times become unwieldy because of the number of specific items

Suggestion for implementation of Checklist

- Add a *'comments'* column to add value to the information in the checklist marking
- Use this tool in conjunction with other methods of assessments
- If developed by others, a checklist may not be suitable for the objectives that you as teachers have in mind or for the groups, you wish to use it with
- An excellent way of finding, recording specific behaviour, action, processes, outcomes, approaches, problems and helps to focus attention on particular aspects of evaluation

For each of the following matters use letters to indicate whether the matter is a Solid (S)/ Liquid (L)/ Gas (G).

Matter	State
1. Water	
2. Mercury	
3. Vapour	
4. Iron	

(iv) Matrix Items:

These are extensions of double matching type items wherein more than two responses are linked to a stimuli. In such type of items, stimuli are presented vertically (in row) wherein responses are presented horizontally (in columns). Students are asked to check each cell in which the response mentioned on the top is true for each of the stimuli along the side.

Deficiency can cause

Vitamins	Excessive Bleeding (1)	Beriberi (2)	Rickets (3)	Anemia (4)	Scurvy (5)	Night blindness (6)
A						
B_{11}						
B_{12}						
C						
D						
K						

(v) Fill in the Blank:

In this type of question, a statement is provided in which one word or two words at different places are removed and students are asked to fill in the blanks with appropriate words. An example of this type is given below:

(a) *Leaves give out water vapour through the process of _____.* *(transpiration / photosynthesis)*

(b) *Motion in a straight line is called _____ motion (rectilinear / periodic).*

(c) Multiple Choice:

Multiple choice questions are the most useful of all the objective type items. In these questions, there is a stem which poses the problem. The stem may be in question form or in the form of an incomplete statement. Then there are four or five choices given for an answer. The student has to select the correct answer from the given alternatives. On the basis of the stem, multiple choice questions may be of two types.

(i) Question Form: (Testing instructional objective-interpretation)

Which one of the following diseases is a non-infectious disease?

    i. Small pox

    ii. Heart attack

    iii. Malaria

    iv. Cholera

(ii) Incomplete Statement Form: (Testing instructional objectives - Identify relationships)

The character shared by a whale and a bat is the possession of

    i.   hair

    ii.   wings

    iii. limbs

    iv. neck

The forms of questions discussed above may be used for different purposes of testing and also making judgement regarding the achievement of the students. If in a test, more varieties of the question forms are used then it will definitely help in testing various objectives and content areas in a better way on one hand and also making it a more reliable and valid instrument on the other hand. It is true that though different forms have some limitations, they do have advantages over each other. Therefore, at the time of the selection of forms, all aspects should remain in the

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mind of teachers so that these forms may be exploited for their best use.

(iii) Completion Type: It is useful for testing expression in language testing.

Q. I was so worried_____

(iv) Analogy type:

What lime stone is to marble, coal is to _____

(v) Location Type: In Geography such questions can be used for testing map skills.

Q. Show on the map- Sydney, Colorado Desert.

In language also such questions can be used for picking up the key ideas, key words or sentences, synonyms and antonyms etc. from the given passage.

- **Transformation Type:** This type is used only in language testing. Reported speech, voices, synthesis, transformation of sentences, etc. can be tested through this type of question.

(vi) Pictorial Type

Q. What are the occupations of the following?

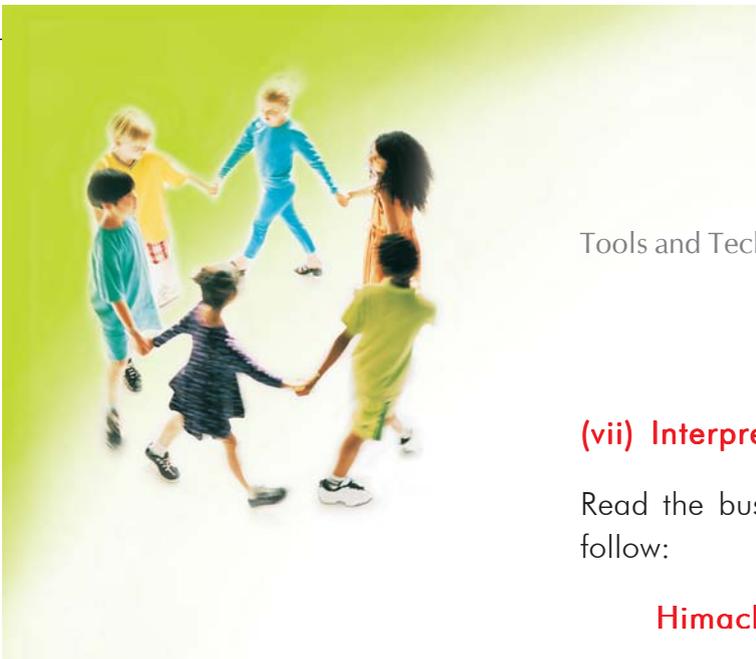**Occupation**

a.   Carpenter

b.   Potter

c.   Nurse

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(vii) Interpretive Type

Read the bus time table given below and answer the questions that follow:

Himachal Pradesh Roadways Bus Service Time Table

Route	Dep. Time from Delhi	Dep. Time from Other direction	Distance (in Km.)	Fare (in Rs.)
Delhi-Baijnath	1815 hrs.	1730 hrs.	539	77.00
Delhi-Chamba	2000 hrs.	1400 hrs.	626	84.00
Delhi-Dharamshala	2145 hrs.	1930 hrs.	513	71.50

- What is the title of the bus time table?
- How many routes are listed in the time table?

2. Observation

Information about a child (his/her behaviour) can be collected in *'natural'* settings in and outside the class through observation. Other information can be collected through planned and purposeful observation of students during activities and tasks.

Advantages of Observation:

- Recognize and identify the various aspects of students' personality development.
- Recognize and identify the individuals as well as groups.
- Recognize and identify on a continuing basis at varying time periods.
- Recognize and identify the students' performance and knowledge based on an *'on-the-spot record'*.
- Over time, a pattern of interests, aptitudes etc. emerge creating a comprehensive picture of the student.

Concerns and risks in Observation as an assessment tool

- Jumping to conclusions based on one or few observations
- Skill of the observer in determining *'what'* is observed
- Lack of sensitivity and objectivity in the way the observation is done
- Observations are made in one situation and not across different activities, settings and time period

Observations can be used as a tool of assessment in a variety of situations -techniques like debates, elocution, group work, practical and laboratory activities, projects, in play fields and school prayers, in clubs and festivals can be used. Whereas observation can be biased and subjective, such errors and risks can be substantially reduced by using an observation schedule.

Here are sample observation schedules in debates, group discussion, practical work in laboratory and projects.

(i) Debate: Sample observation criteria

Each observation can be assigned a score out of five.

Sl.No.	Descriptors	Score out of 5
1	Depth of knowledge of the content	
2	Strength of the argument to convince	
3	Fluency with diction and pronunciation	
4	Ability to contradict a given point of view	
5	Ability to take criticism positively	
6	Respectful to the opponent	
7	Body language while arguing	
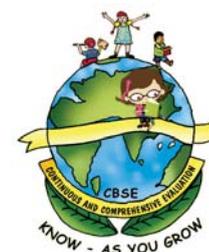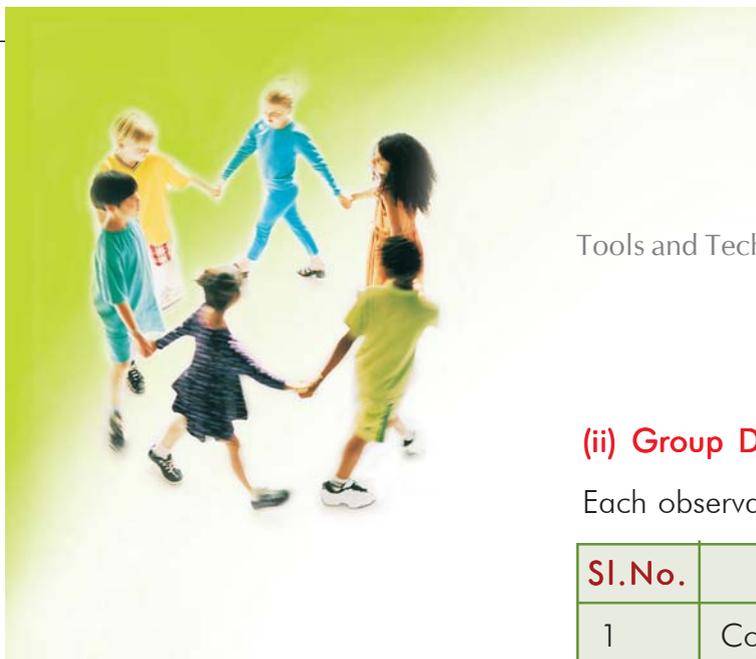
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(ii) Group Discussion: Sample observation criteria

Each observation can be assigned a score out of five.

SI.No.	Descriptors	Score out of 5
1	Contributes to the discussion	
2	Knowledgeable about the subject of discussion	
3	Involves others in the discussion	
4	Demonstrates leadership skills	
5	Accepts criticism positively	
6	Contributes creative ideas	
7	Carefully listens to others	

(iii) Practical/Lab Activity: Sample observation criteria

Each observation can be assigned a score out of five.

SI.No.	Descriptors	Score out of 5
1	Sets up experiments (right apparatus) carefully and properly	
2	Uses the appropriate techniques to perform the experiment	
3	Collects data and observations correctly	
4	Works with precision, neatness and accuracy	
5	Interprets data, observation and draws inferences correctly	
6	Relates the findings with theoretical knowledge	
7	Demonstrates in-depth knowledge during viva	

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(iv) Projects:

As projects are carried for completion over a period of time, it provides significant opportunity to assess both Scholastic and Co-Scholastic skills of students. A few sample observation criteria that can be assigned a score out of five

Sl.No.	Descriptors	Score out of 5
1	Has done enough research and collected relevant information	
2	Reflects creativity and aesthetic skills	
3	Demonstrates understanding of the concept in the project documentation	
4	Consults internet and other material in completing the project	
5	Has he/she conducted any interviews regarding the project?	
6	Demonstrates originality in the approach to the project	
7	Has interpreted results appropriately	

3. Tests and Inventories

Oral tests should not be used for content or skills that can be tested through written examination. Oral tests being individual tests require more time than group written tests. Oral tests are best suited to assess the depth of learning where a student has difficulty in written expression.

Oral tests and examinations:

- Allow the learner to participate in the learning assessment process.
- Help to test listening and speaking skills.
- Test certain verbal abilities like fluency, expression and accuracy.
- Test depth of learning of the students through probing questions

Oral tests also require previous planning. Questions should be predefined and documented by the teacher. The questions should be arranged in order of difficulty. Wherever probing is necessary, probable probing questions should also be written down in advance. For each question, the expected answers, the value points and the manner of presentation should also be written down.

For objectivity, students' answers should either be recorded on a digital (or otherwise) recorder or documented on paper. One simple way out is, to check out on the model answer sheet. As a student responds,   teacher checks the correct answers and crosses the incorrect answers. This kind of coded recording should be supplemented by brief descriptive notes.

4. Checklist

The concept of checklist has been provided earlier under questions. However, checklists can be used in several other areas of assessment. For example, as a part of Life Skills, whether a student can dress up neatly, suitable to the occasion or a student can confidently address the students during the school prayer. Checklist is used where answer is in either 'yes' or 'no' form. There could be a possibility of confusion. Checklists can be filled only by collecting the information by observing or questioning or by document analysis. Hence, checklist is primarily an instrument of data recording and documentation.

5. Rating scale

In the previous chapter, under Life Skills, we have provided ample illustrations for rating scales. There may not be the need to elaborate further. The only point to remember is that rating scale is used wherever a response or a learner behaviour is likely to be in a continuum – from excellent to bad or from satisfactory to unsatisfactory.

6. Anecdotal Records

Anecdotal records derives its origin and meaning from the word 'anecdotes' – brief events and episodes. An Anecdotal Record is the

observed behaviour of a student. It is a record of some significant episode happened in the life of the student that sheds light on the conduct, thinking, skills and capabilities, revealing significant features and characteristics about his/her personality.

In order to arrive at a trend or pattern, emphasis is on recording multiple episodes or anecdotes. Every time, a teacher documents an episode or an anecdote, she records her comments too.

Objective Description

When I walked into the class, the students greeted me. All of them were in a joyful mood and did not want to study. I agreed. I divided them into groups and asked them to play games in groups. Suddenly, I noticed that Shivang was studying a science book and was totally engrossed in his studies. I became very curious and asked," Why don't you play games with your friends?" Shivang replied, "I do not enjoy playing these games. I enjoy reading my science books."

Comment:

Shivang is an intelligent boy who has got a scientific temper but lacks social skills. He does not like to interact with others. He prefers to study Science in depth and thinks a lot.

Guidelines for the Preparation of Anecdotal Records

We cannot set any limit on the number of anecdotes to be recorded. It depends upon the time in hand of the teachers or counsellors. The following points should be considered in connection with these records:

- These supplement other records and should not be considered as substitutes
- The objective description of the behaviour should not be mixed up with the subjective comments

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- Any significant behaviour, be it in the classroom, in the school or outside the school, should be recorded
- Student's behaviour, whether it is favourable, unfavourable or neither of the two should be recorded
- The facts presented in all the anecdotes must be shifted and arranged so that they may be studied in relation to one another
- The record should be regarded as confidential. It should not fall into irresponsible hands

Specimen of an Anecdotal Record

Name of the school	
Name of the pupil observed	Class:
Observer:	Date and Place:
Objective Description:	Comments of the Observer:

Uses of Anecdotal Records

- They provide specific description of personality and minimize generalizations
- They are very helpful in understanding the child's behaviour in diverse situations
- They provide a continuous record
- They provide data for learners to use in self-appraisal
- A summary of these records is valuable when forwarding a pupil's record (when he is transferred from one school to another)
- The new members of the staff may use these records and acquaint themselves with the student body
- These records aid in clinical service
- They motivate teachers to use the records

7. Document Analysis

Record or document analysis is extensively used in research. The significance of this technique is with regard to assessment of students on the basis of documents, e.g. assignments, projects, journals in science, geography, etc. In a way, this technique is also used to evaluate answers to essay type questions. The assessor, here, searches and identifies the main points, arguments, illustrations and examples, derivations and numerals to justify the concept and its explanation, etc.

8. Portfolio

It is the collection of evidences of students' work over a period of time. It could be day-to-day work or selection of the learner's best piece of work. Painters and commercial artists often use Portfolios to demonstrate their skills and quality work before the selection committees.

Advantages of Portfolio

- Provides a cumulative record of growth and development of a skill or competency in an area over a period of time.
- Enables a student to demonstrate to others, his/her learning and progress.
- Student becomes an active participant in the learning and assessment process.

Concerns regarding Portfolio

- Selected work to be put into the Portfolio should have a specific reason.
- Not all papers/items of work are to be included. This will become unmanageable.

Suggestions for implementation of Portfolio

- Student should be encouraged to participate in selection of Portfolio contents as well as in developing the criteria for selection of the contents.
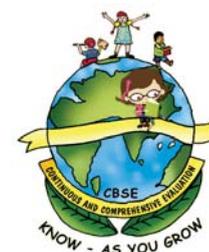
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- Continuous updating of the Portfolio as the child grows.
- Careful structuring of Portfolio material accompanied by a reflective account.
- Clear labelling and numbering of content for easy reference.

Portfolio can include

- **Photographs:** Provides an insight into the child's emotional, social and psychological aspects of development

- **Paintings and other examples of artistic endeavour:** Provides evidence of a learner's abilities, thoughts and attitudes

- **Audio-Video Recordings:** Specific situation or over a time span to cover important processes and aspects that can be recorded and analyzed later

- **Self Assessment Sheets:** Portfolio to provide evidence of the learner's self evaluation

- **Peer Assessment Sheets:** Excellent for assessing in team and group based activities, social projects and peer related behaviour. Can be incorporated into the learner's Portfolio to provide evidence of the learner's social life skills

- **Parent Assessment Sheets:** Can be incorporated into the learner's Portfolio to provide evidence of evaluation done by the parent

9. Quizzes, Competitions

Quizzes and competitions are common play/place activities today in electronic media, TV in particular. This kind of assessment usually turns out to be joyful. Besides testing the knowledge of the participants, it helps in building collaboration and team work in group events.

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10. Assignments

These are theme based tasks to be completed as class work or homework and can be open ended or structured.

Advantages

- Provides students an opportunity to search for information, construct their own ideas, and articulate the same ideas through spoken, written and visual expressions
- Helps assess a wide range of objectives and content of learning.
- Provides students an opportunity to relate and synthesize within and outside school learning

Caution for teachers

- Not too much homework, assignments should be given which is the current practice
- Assignments should be framed in such a manner that they can be managed by students on their own (independently)
- Should not become the only method of assessment

Suggestions for implementation

- Going beyond collection of assignments by following it up with analysis, discussion and reflection
- Creativity of students is promoted
- Encouraging students to go beyond the textbooks
- Group work is to be encouraged.

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Implications for Schools

I. Role of Teachers

The examination system is complex. It has to meet the requirements and expectations of stakeholders at different levels and perform multiplicity of functions. The purpose of an examination may be one of certification, of selection, of institutional accountability, or an instrument of social change. More often it is indeed an amalgam of many functions. Those who engage in educational reforms must take account of the full range of stakeholder requirements and ensure that a degree of coherence in those expectations has been achieved.

Reforms which encourage School Based Assessment, create new pressures of accountability and place greater reliance on the professional judgement of teachers. Pedagogies which work in one educational context perhaps with more generous resourcing levels and optimum class sizes are not necessarily transposable into other contexts. A rich dialogue between policy makers and teachers is required to ensure its effective implementation. Opportunities

for professional development, in-service training guidance via the production of exemplar materials and handbooks become vital. Educational reforms which call for new pedagogies, the incorporation of ICT into the curriculum for the encouragement of e-learning are possible only by an unwavering commitment to the training programmes for teachers.

Modes of assessment emphasize investigative approaches to learning and the application of skills, knowledge and understanding. The approach recognizes that *'recall'* becomes a relatively less useful skill for individuals in today's world of rapid change. Instead *understanding, applying, analyzing, evaluating* and *creating,* the higher order thinking skills (HOTS) of a revised Bloom's taxonomy become more relevant.

Of all those involved in student's education, it is the teachers who feel the most responsible. This is expressed in their desire to help all children acquire knowledge, skills, positive attitudes and values to face life with confidence. In order to find out how students are doing in schools, teachers spend a lot of time in assessing students. Most teachers view assessment as an important part in their daily school routine. Why is this so? Teachers give a number of reasons for this. One important reason is that it is necessary to know if the student has learnt what she/he was expected to have learnt. The second, is to find out what the student's progress has been over a certain period of time. However, there is a third reason that has been given more attention by not only the teachers but all of us as well i.e. finding out what the student has achieved in different disciplines. This could be because we are all concerned about providing *'good quality'* education and feel that one way of ensuring this whether it is happening ot not is, by evaluating the student's achievement in the subjects being taught through tests and exams.

Testing has its own purpose but if we really want to help student learn better, we need to consider what the marks or grades obtained by children through tests or exams actually tell us about a student's learning or progress. While assessing student, it is important to appreciate differences amongst them and respect the fact that they will understand and respond in different ways while learning. Students are not *'empty vessels'* or *'blank slates'*, to be filled with information and knowledge that only the school

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can provide, as is generally believed. It is important to build on experiences which a student brings to the school. New learning needs to be based on what the student already knows and understands.

Some important aspects are -

- Every student can learn if allowed to do so at her/his own pace and follow her/his own way of learning
- Students learn more through play and activities and learn better from each other if they actually *'do'* things
- Learning is a continuous process. Thus, student's learning does not take place in the school. Therefore, classroom learning should be linked to what happens outside the classroom and at home
- Students *'construct'* their own knowledge and do not only learn when and what the teacher teaches. This means that every student makes sense of what information he/she is exposed to be based on his/her previous experiences and learning. Only then does the student arrive at his/her own understanding and conclusions. Each student has a unique approach to acquiring knowledge. And this is a continuous process
- Children at the primary stage learn better and more easily through experiences, play, exploration, trying out various things and actually *'doing'* different activities
- Students learn in a spiral and not a linear way. Thus, revisiting concepts again and again helps them to understand better. The act of learning involves a process of establishing connections among facts observed and experienced by students. The new learning, therefore, is to be based not only on the preceding facts and information but could be related even to things acquired long back in school, home or elsewhere. Hence, learning does not proceed in a linear manner
- Students learn through the mistakes and errors they make themselves
- Learning takes place in a holistic manner, thus, an integrated approach to learning is better

Source: NCERT

II. Assessment

Assessment of the outcomes of learning is done, with the teaching-learning process in a continuous manner. In order to undertake a holistic assessment, all aspects of learning need to be given due recognition. The manner and modalities however may vary. While teachers are regularly observing the progress of students some periodicity would be necessary. It implies maintaining a profile for each student. This is required in order to reflect upon, derive feedback, plan and implement measures to enrich and enhance student's learning. This will call for a judicious cycle to be followed. One cannot undermine the fact that while informal observations continue, fortnightly reviewers and quarterly reflections are generally recommended to promote and enhance learning among children.

Thus assessment may be on:

- Daily basis: Interacting with student and continuously assessing them both in situations inside and outside the classroom
- Periodic: Once in every 3 to 4 weeks, teachers may check and reflect on the information collected. This however should not be in the form of a test or exam

b. Methods of Assessment

Before choosing any method, it is necessary to decide the kind of arrangement that is best suited for the type of information needed. There are four basic methods of organizing assessments, namely:

- Individual Assessment: which focuses on one student while she/he is doing an activity or task and thus recognises individual work and accomplishments
- Group Assessment: which focuses on the learning and progress of a group of student working on a task together with the objective of completing it. This method of organization is found to be more useful in order to assess social skills, co-operative learning processes and other value related dimensions of a student's behaviour

Continuous and Comprehensive Evaluation

- Self-Assessment: refers to the student's own assessment of her/his learning and progress in knowledge, skills, processes, interests, attitudes etc.
- Peer-Assessment: refers to one student assessing another student. This can be conducted in pairs or in groups

c. Assessment can become a useful and interesting process. To realize this, one needs to be careful about:

- Being clear about why you are assessing the student.
- Not labelling students as, *slow, poor, intelligent, dull* or *making comparisons between* students
- Using a variety of ways to collect information about the student's learning and progress in subjects and across curricular boundaries.
- Collecting information continuously and recording the same
- Giving importance to each student's way of responding and learning and the time it takes to do so
- Reporting on ongoing, continuous basis and being sensitive to every student's responses
- Not making negative statements, or using technical language during assessment, or while providing feedback to the student, parents or others
- Providing feedback in clear and simple language which will lead to positive action and help the students to improve

III. Inclusive Classroom

"To make inclusive education possible, to accommodate students with different learning abilities, the present education system and educational practices need to become more flexible, more inclusive and more collaborative."

Education of Children with Special Needs, NCERT

A school can deal with the differently abled students by forming teams consisting of the school counsellor, class teacher, peer mentor or Buddy. Given below are two case studies which have helped differently-abled children.

Case Study - I

Ratish is a bright child with a range of interests and strengths. He joined a school in Class VII in 2008. At that time Ratish felt vulnerable, frustrated and would give up any attempt to learn.

Attention/Concentration

Status Entry

- His attention/concentration fluctuated.

Interventions

- He was made to focus on tasks by using various strategies, aids, repetitions and reminders.

Current Status

- He showed lack of interest when the task was too long.

Social/Emotional

Status

- When he joined, he was hardly audible, unable to understand social subtleties.

Interventions

- Here the team *(teachers, educators, buddy)* helped him in making friends.

Current status

- Now, he interacts and communicates with others in verbal and non verbal ways.

Verbal

- Small talk/conversation
- Sharing jokes
- Sharing and discussing (Sports/Music/Movies/Cartoons)

Non Verbal

- Active Listening
- Body Language

Ratish is an active member of the School Dramatics Club.

Self-Esteem

As self esteem is a basic human need and it makes an essential contribution to life process, Ratish lacked self worth as he did not get enough support of his family. He is quite self confident now.

Academic

Ratish is a good visual learner.

- He is encouraged to do the writing work in the school.
- He is helped through frequent reminders by the school team *(teachers / educator/ buddy)*. He is made to proof read the test before submitting.
- He is given consistent support and intervention *(Structured remedial plans in the form of flow charts, notes/webs charts)*
- He still needs direct instructions and extensive guidance.

Year 2008 : (VII)	To motivate Ratish, he was assessed on 60% oral and 40% written for one complete academic year.
Year 2009 : (VIII)	This year, he was made to do the class syllabus completely. He will be reassessed if he is not able to clear the modified paper of the same level.

Case Study-II

This concerns Shantanu, a case of Cerebral Palsy

Shantanu - (CP) - Cerebral Palsy Spastic.

Shantanu is a hard working and responsible child. He has the potential as he has good cognitive skills and abilities.

Concentration

- He is able to focus on the task.
- He needs instructions and support in learning.
- He has poor management skills.

Behaviour

- An attention seeker.
- Sometimes lazy and does not want to work hard
- Whenever found idle, he is seen sucking his thumb.

Social / Emotional

He is very verbal and interacts with his peers. He interacts and communicates in both verbal and non verbal ways.

Self Esteem

Earlier he was not very confident but can now exchange ideas and can talk about himself *with teachers/others*.
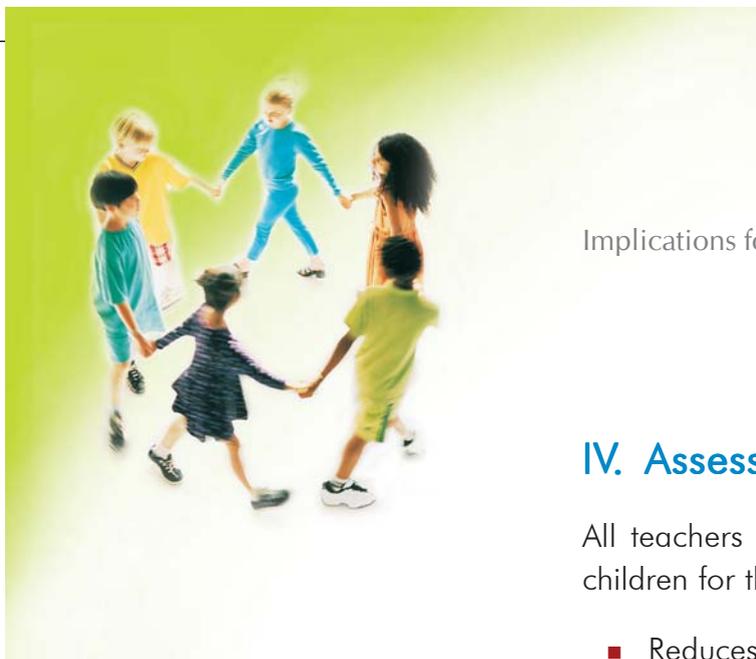
Academic

Current Status

- He was capable to cope with the mainstream syllabus.

Interventions

- He was helped with a few modified papers to make it easier.

  He is given consistent support and intervention in the form of Remedial teaching.

Continuous and Comprehensive Evaluation

IV. Assessing Co-Scholastic Areas

All teachers need to be involved in Assessing Co-Scholastic Skills of children for the following reasons:

- Reduces Subjectivity
- Removes Bias
- Provides a point of reference to all teachers
- Makes all teachers involved and accountable
- Distributes work load amongst teachers
- Simplifies work with regularly maintained record, on computer

V. Empowerment of Teachers

No educational scheme can succeed unless the teachers are adequately prepared for executing it and have faith in its worth. This preparation will resume the visualization of a realistic scheme and the development of comprehensive procedures for its operational implementation. Teachers need to be provided with orientation about the scheme (Refer Annexure 2). For providing orientation trained resource persons need to be created.

The content of such training and orientation programmes, have to incorporate both the Scholastic and Co-Scholastic Areas of learners' growth. The development of improved evaluation tools and their appropriate use, is an important aspect of these courses. With respect to the Scholastic Areas, it would require the preparation of objective based questions, balanced question papers, scoring of scripts, analysis and declaration of results. Regarding the Co-Scholastic Areas, it would mean the preparation and use of rating scales, inventories, checklists, schedules and the procedures of assessing different skill areas. Training in methods of collecting, recording, compiling and interpreting evidences of learners growth will be other crucial aspects of these training programmes.

Continuous and Comprehensive Evaluation