

Goa Board of Secondary and Higher Secondary Education

(A Corporate Statutory Body Constituted by an Act of the State Legislature)

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GBSHSE/EXAM/SSC/HSSC/Exam-Ref/09-10

CIRCULAR NO. 31

Date:- 06/07/2009

To,
The Heads of all Secondary &
Higher Secondary Schools under
jurisdiction of this Board.

Sub:- Regarding Examination Reforms proposed by NCERT.

Sir/Madam,

Please find enclosed alongwith from Annexure I to Annexure V certain recommendations of NCF 2005 and the Focus Group on Examination Reforms with an emphasis on implementation of Continuous Comprehensive Evaluation in all subjects from Primary to Higher Secondary Stage.

You are requested to hold deliberations on the same amongst your teaching faculty, school PTA's and send a report incorporating your views/suggestions latest by 4th September, 2009 for further necessary action at our end.


Secretary

Copy for information To:-

1. All members of the Board.
2. The Director of Education, Panaji, Goa.
3. The Director of S.C.E.R.T. Alto Betim, Bardez, Goa.
4. Asst. Director of Education, North/South/Central Educational Zone. Mapusa/ Margao/ Panaji.
5. Higher Secondary Principals Forum, Goa.
6. Higher Secondary Teachers' Association, Goa.
7. Goa Headmaster's Association, Goa.
8. Goa Govt. Headmaster's Association, Goa.
9. All Section Heads of this office.
10. Guard file.

A-I

Examination Reforms in the Context of NCF – 2005

- Avtar Singh*

Introduction

Over the years, many attempts have been made to reform examinations in our country. Some reforms have been implemented while others have remained at the level of academic discussion. There are variety of reasons for reforms not being accepted. One of the reasons is the inertia of the present system coupled with the lack of initiatives of teachers, administrators and education boards as well as lack of political will of the nation. Public examinations are not merely the process of certification but it is a part of the education system expected to contribute towards equity, equality and quality. There is growing concern to improve the learning of the majority of the children studying in rural schools. Despite adverse socio-economic conditions, children must receive good education rather than being simply enrolled, promoted mostly at lower classes under the pretext of non-detention policy and mindlessly failing students in secondary and senior secondary classes without providing proper facilities and learning environment.

The issue of education of rural children, girls and of disadvantaged groups is a matter of greater concern for all of us. The National Focus Group on Examination Reforms and other Focus Groups debated on key issues in respective position papers.

The Focus Group on Examination Reforms has recommended both short term and long term reforms so that the system moves from one shot examination towards continuous assessment beyond the cognitive domain and also beyond the paper pencil test. School based assessment need to be promoted to enhance institute's capacity and also to empower teachers for using assessment feed back in teaching. Board examination to be deemphasized. No board examination should be held before class X; even class X exam can also be thought to be **made optional**. To make learning child centric rather than exam centric, school based assessment in all areas need to be promoted with proper monitoring, supervision and accountability. To make examinations **student friendly**, flexibility has to be brought into the rigid, bureaucratic and poor academic set up of education boards. Gradually boards should evolve different types of examination system such as '**on demand**', '**examination online**' and '**open book**' exams.

These reforms are discussed in brief in this paper.

Objectives of the Public Examinations

The public examination are mainly employed for the certification of the level of achievement. There has to be a shift for certification of the achievement of large variety of competencies rather than rote memorization of same limited competencies year after year. Besides certification, examination are also supposed to provide a rich feedback to the system so that system reforms itself to maintain standards of education. A detailed analysis of results on different parameters such as area-wise gender-wise and category-wise can serve better purpose. Such an analysis is rarely done though a rich data is available with each board.

* Member Secretary, National Focus Group on Examination Reform, NCF-2005

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What do the Board Examinations Test

The question paper is the main tool in any public examination. Over the years, some changes have been brought into this tool with respect to its format, quality of the questions, development of detailed marking scheme, methods of evaluation and reporting of the performance. Many of these are still cosmetic and ritual. The broad structure of the question paper still remains more or less the same with regard to number and type of questions, the weightage to different objectives, the fixed duration of three hours and mostly of 100 marks (except science subject), 33% fixed cut off for pass etc. There is no empirical study available to guide us what is the appropriate combination of these factors to make the question paper a valid and reliable tool, learner friendly rather than an examiner or system friendly. There is a need to look for inclusion of good objective type, problem solving and open ended questions to test the acquisition of the desirable competencies rather than the recall of the bookish information repeatedly year after year. More time should be provided to those who want to write creative and innovative answers to questions.

Who is failing student or the system

Is it justified to declare a student pass/fail on the basis of a **single short three hour** public examination held at secondary and senior secondary stages? This issue has been debated frequently a number of times. It is often argued that there should be a more comprehensive way of assessing student's performance by employing multiple techniques of assessment. In this direction, it has been suggested that school based Continuous and Comprehensive Evaluation (CCE) should be introduced for all classes in the schools including classes X and XII. The system of pass/fail on the basis of fixed cut-off (33%) for all subjects is unscientific and arbitrary, needs to be modified. The stigma of 'fail' is held responsible for quite a number of suicides. It is time to do away the term 'fail'. The results can be conveyed subject-wise into few broad categories such as excellent, very good, good, average, unsatisfactory, needs improvement etc. This certification should take into account the performance of students in all activities reflected in the school certificate. A provision may be made in the system that a student can retake part or whole board examination after a reasonable time to improve upon the unsatisfactory grade/grades without wasting a complete year.

Introduction of Flexibility in the Examination System

The issue of curriculum load is crucial in the present education system. With the changing time, flexibility has to be built in the education system particularly in the examination system. Flexibility should reduce the both mental and physical load of children without compromising quality. Everybody need not learn everything. Therefore, there can be **differential levels** (say A and B) in each subject and a student may have the freedom to choose a combination of subjects of his/her interest both at A and B levels for studying and qualifying in a board examination. We can also think of another system in which student have freedom to chose required number of subjects of his/her choice for studying in a school. It is also suggested to create a **three year window** within which all subjects can be cleared together or in parts. Not only this is a progression toward '**on demand exam**' when a student is ready but it would also serve the need of social justice, reduce exam load and will motivate learner to continue study. Alternatively, board exams of **class X** can be **made optional** and students can be promoted on the basis of school examination like other classes in the same school.

Do we need Grading System

Grading system has been debated for many years but could not be introduced in public examinations at school level or even in higher education. Wherever a step forward was taken, there was no unanimity whether **Absolute or Relative Grading** was suitable for public examination. Therefore raw marks continue to be awarded and respected in spite of errors and imperfections. It is a known fact that misclassification can be minimized only if students are grouped into grades. Absolute letter grades (A,B,C.....) can be employed conveniently at school level under CCE. However in the Board Examination, perhaps more rational and scientific classification is needed to describe the relative position of a student within a school, within a block/district and over all in a state. This is possible now-a-days with available softwares and computerization facilities. The percentile ranking can also enable interboard comparison of students performance. This issue has remained untackled so far.

How to Reduce Stress among Examinees

The examination related stress occurs mainly at three stages. At the first place, it is the school examination/pre-board examination which causes fear and anxiety among the young minds. The second biggest cause of anxiety and **suicidal tendencies** is the single shot three hour public examination conducted by the various School Education Boards. The failure rate in most of school education boards ranges from 40% to 60%. The third reason for the stress and anxiety is the Entrance Examinations for admission to professional courses conducted by IITs, Engineering and Medical colleges etc. Fourth, a student on its own may not be that much under stress as he/she is due the pressure from the parents, teachers, peer group and society. Parent's expectation contribute significantly to the stress phenomenon. The student is always at the receiving end, carrying tuition load, parental expectation load, peer load. Therefore a space is needed where the student can express himself and share what is happening with him/her. At the first place parents can provide this space by being open and friendly. Secondly counselling can lessen the stress and exam fever among examinees to a greater extent. Each school should have a guidance and counselling provision to interact with the students, teachers and even parents. Since this facility is not there in all the schools, to begin with one teacher from each school may be provided a short term training to deal with stress-related problems. Similarly helplines provided by boards are proving quite useful during examination days. Each school should have a helpline during examinations to deal with stress cases. Much more can be done by parents and teachers to save precious lives because one examination is not the end of the road.

The Need of School Based Continuous and Comprehensive Evaluation

The National Policy on Education (1986) advocated de-emphasis on external examinations and institutionalization of CCE. The teacher who teaches can test better as she/he knows the child more than anybody else. Such a testing has a diagnostic value for the teacher as well. Therefore, CCE aims at promoting learning and development of other aspects of student personality. School certificate must reflect on all round achievements and needs due recognition. Even in board certificate appropriate weightage should be given to school assessment so as to make assessment broad based and to promote school learning and working environment. NCF-2005 proposes a weightage of 20% for CCE initially in a board certificate. Gradually when CCE is institutionalized, the weightage can be raised to 50%. The details of CCE are appended.

The need of a Nodal Agency for Entrance Examinations

Due to large number of candidates aspiring to seek admission in professional courses such as IITs, NITS, Medical Colleges etc. entrance examinations came into existence and will continue progressively. The board's certification is not of much value for these admissions. This is true also because the purpose of the two type of examinations are entirely different. The board examinations measure learning achievement whereas entrance examinations are based on speed for selection. The two are not **comparable** but can be **complimentary**. In view of increasing competitions, there is need to formulate a **National Evaluation Organisation (NEO)** like **ETS Princeton**, to coordinate, conduct, monitor and prepare merit list for admission to various professional courses across the country. Such a professional organization will test the real ability of examinees rather than rote-learning etc. Such an examination will reduce the coaching effect and will also save the children from the multiplicity examinations. Less entrance examinations will also relieve the parents from financial burden, will save time and lessen the burden of students.

Summary

The above reforms can be summarized as

- Flexibility in choosing subjects.
- Flexibility in qualifying all subjects in a three years time.
- Use of multiple techniques of assessment.
- Giving due weightage to school based Continuous and Comprehensive Assessment in the Board Certificate.
- Creation of a single window entrance examination for admission to all professional courses.
- Use of subject-wise grades/percentiles in assessment.
- Enhancing the quality and duration of question papers for creative answers.
- Abolishing the system of declaring pass/fail
- Creating better learning environment in schools.
- Organising teachers training in teaching and evaluation.
- Provision of guidance and counselling in schools.
- Educating parents about their children's capabilities and capacities.

Each child has a potential but we fail to tap it. Let us harness it.

"I don't teach my students but provide them a learning environment"

- **Albert Einstein**

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School Based Continuous and Comprehensive Evaluation

Appendix

Features of CCE

Continuous and Comprehensive Evaluation (CCE) refers to a system of school based evaluation of students that covers all aspects of students development.

(A) The 'continuous' aspect takes care for 'continual' and 'periodicity' 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) using criterion-referenced tests and employing multiple techniques of evaluation.

(B) The 'comprehensive' component of CCE takes care of assessment of all round development of the child's personality. It includes assessment in learning areas, participating in various activities and development of interests, attitudes etc. necessary for pupils' growth.

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

- Assessment of other activities is also done using multiple techniques on the basis of identified criteria, while assessment in social personal qualities is done using behaviour indicators for various interests, values, attitudes, etc.

The tools techniques and periodicity for different stages is given below in tabular form.

Scheme of Evaluation for Different Stages

(A) Tools and Techniques for Evaluation

Level	Classes	Techniques	Tools	Periodicity and Recording	Reporting
Pre-Primary	KG/Nursery	Observation	Observation Schedule	Day to Day observation	-
Primary	I & II	• Observation • Oral	• Observation Schedule • Oral Questions • Question Paper • Diagnostic test	• Day-to-day Observation and recording by the teachers • At the end of competency/ Unit • Recording after the test	• Direct/Absolute Grading (three point)
	III, IV & V	• Oral • Written	• Oral Questions • Question Paper • Assignment • Project • Diagnostic test • Activity/experiment	• Unit wise • Monthly • Terminal • Recording after the test	• Absolute grading (three point)
Upper Primary	VI to VIII	• Oral • Written • Practical	• Oral Questions • Question Paper • Assignment • Project • Diagnostic test • Activity/experiment	• Unit-wise • Monthly • Terminal • Recording after the test	• Absolute grading (five point)
Secondary	IX to X	• Written • Practical • Viva-voce	• Question Paper • Assignment • Project • Practical (Activity/Experiment) • Oral Questions	• Unit-wise • Monthly • Terminal • Recording after the test	• Absolute grading (nine point)
Senior Secondary	XI to XII	• Written • Practical • Viva-voce	• Question Paper • Assignment • Project • Practical (Activity/Experiment) • Oral Questions	• Unit-wise • Monthly • Terminal • Recording after the test	• Absolute grading (nine point)

(B) Curricular Activities

Activities

LITERARY 1. Reading/Recitation 2. Debate/speech Making 3. Creative writing	Cultural 1. Music (instrumental/vocal) - Performing arts (dramatics/dance)
Scientific 1. Club activities 2. Nature study 3. Computer literacy	Physical (games/sports and yoga) 1. Indoor 2. Outdoor 3. Yogic exercises
Artistic 1. Drawing 2. Painting 3. Embroidery 4. Craft 5. Sculpture	Miscellaneous 1. First aid 2. Red Cross 3. Scouting 4. NCC 5. NSS 6. Adventure activities 7. Other hobbies

Personal Social Qualities including Interests, Attitudes and Values

1. Cleanliness 2. Cooperation 3. Punctuality/Regularity 4. Discipline/obedience 5. Emotional stability 6. Initiative 7. Responsibility 8. Diligence 9. Environmental awareness 10. Leadership	11. Tolerance 12. Appreciation of good qualities 13. Truthfulness 14. Patriotism 15. Social Service 16. Civic sense 17. Dignity of manual labour 18. Respect for elders/others 19. Protection of environment 20. Protection of cultural heritage
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Paradigm Shift in Pupil Evaluation

Context

The National Curriculum Framework (NCF) 2005, prepared by the NCERT, has proposed a shift in the approach to teaching and learning from the earlier behaviouristic approach, basically because of a paradigm shift in the theories of learning. The new shift is on constructivist approach wherein it is believed that a child should construct his/her own knowledge. The prevalent approach was based on behaviourism, which emphasized that the purpose of teaching/learning was to bring about desired changes in the child's behaviour through a lot of drill and practice. As a consequence of this belief, the questions used to test students' achievement in different subject areas were largely memory based. The meta-cognitive skills like reasoning, creative thinking, application of knowledge, interpretation, inference etc. ~~should be taken care of while assessing~~ were neglected, and didn't give any opportunity to the child to think and reason out on his own. "We need to give our children some taste of understanding following which they would be able to learn and create their own versions of knowledge as they get to meet the world of bits, images and transactions of life". (NCF, 2005) With this in background the approach to pupil evaluation will also need to change in the present set up.

What is Constructivism?

The verb "to construct" comes from the Latin *con struere*, which means to arrange or give structure. Ongoing structuring (organizing) processes are the conceptual heart of constructivism. Constructivists believe that the process of actively engaging in building new knowledge structures is how new knowledge is created. They also believe that "learners construct their own reality or at least interpret it based upon their perceptions of experiences, so an individual's knowledge is a function of one's prior experiences, mental structures, and beliefs that are used to interpret objects and events" (Jonasson, 1991). Constructivism assumes that the nature of reality is multiple, constructed, holistic and asymmetric. Generalizations are not possible or desirable. (Rodwell and Woody). The constructivist theory, therefore, relies upon a much different set of assumptions -- assumptions that impact both learners and educators -- than do traditional systems.

The Assumptions of Constructivism

In his article *Constructivism and Instructional Design*, Merrill (1991) outlined the following assumptions of constructivist theory.

- knowledge is constructed from experience
- learning is a personal interpretation of the world
- learning is an active process in which meaning is developed on the basis of experience
- conceptual growth comes from the negotiation of meaning, the sharing of multiple perspectives and the changing of our internal representations through collaborative learning.
- Learning should be situated in realistic setting; testing should be integrated with the task and not a separate activity.

Constructivism and learning

Constructivists believe that students develop new knowledge through a process of active experience. Not only do they receive input from the teacher or educational material, they also incorporate the new knowledge into what they already know – their knowledge base – to create new knowledge and make it their own.

Thus, the basic characteristics of constructivist learning are:

- learning is not a passive receptive process but is instead an active meaning-making process required to solve meaningful problems.
- New learning depends on learner's previous knowledge, which may sometimes interfere with the understanding of new information.
- Learning implies the reorganization of prior conceptual schemes
- Learning is facilitated by social interaction
- Meaningful learning occurs within authentic learning tasks (Sharma, 2006)

- Learning environment in constructivist approach supports knowledge construction and multiple perspectives. Students should explore multiple pathways open to them. Teachers should also be flexible in their approach and accept different points of views presented by students. In a constructivist classroom, the teachers' role is that of facilitator who guides the students learning in their own way. The teacher should also be flexible in evaluating different student outcomes and products, which will be present in a constructivist classroom.

Constructivism and Evaluation

According to Scriven (1981), Evaluation is the process of determining the merit or worth or value of something. It is a judgemental process on the basis of which decisions are made. Through evaluation, a teacher judges the students' progress towards the objectives of the course. As the curriculum is designed around certain goals and objectives, the evaluation also takes them into consideration.

Constructivism has suggested a new paradigm for teaching and learning, which will also necessitate a new paradigm for evaluation as well.

The constructivist approach to evaluation is different from the traditional approach, which is evident from the following table:

Traditional Approach		Constructivist Approach	
•	Pre-set criteria to judge the learners' achievement.	•	No pre-set criteria, learners' interpretation is respected.
•	Pre-designed learning outcomes by the teachers.	•	Different learning outcomes for different learners. Students set their own goals.
•	Teacher assesses the students' work.	•	Students determine themselves how well they have achieved their goals through feedback from the teacher, peer evaluation and self assessment.
•	Emphasis on objectivity of scoring.	•	This is also known as subjective approach to evaluation.
•	The tasks given are not real-artificial tasks developed for the sake of an exercise.	•	Authentic tasks are given which have real

			world relevance and utility.
•	Tests knowledge of facts and skills.	•	Tests higher order thinking like problem solving, logical and creative thinking etc.
•	Tests are at the end of a course.	•	Process of learning is as important as the product. It is integrated with learning. It is an on-going process.
•	There are pre-set right or wrong answers.	•	No right or wrong answers. Each student will have his/her own perspective, point of view.
•	It is a judgemental process.	•	Evaluation is less judgemental. It is more directed to the process of learning.
•	Relies a lot on paper-pencil tests, examinations, formal tests etc.	•	Relies on anecdotal records, portfolios, projects, oral presentations by students, role play, discussions in the class etc.

Strategies of Constructivist Evaluation

The constructivists advocate ongoing evaluation rather than one time evaluation at the end of the course. Different strategies of evaluation can be undertaken in order to evaluate multiple aspects of learning.

Anecdotal Records:

These are a form of ongoing assessment of students in the classroom. The teacher observes the students working, participation, activities, behaviour and jobs down her note. These notes help her to know how the students processes information, collaborate with other students, what are their study of learning and what are their attitude and behaviour.

Oral Presentations:

Students are allowed to verbally present their knowledge. For this student conference or seminar may be organized and their presentations may be evaluated by a panel of teachers.

Peer Assessment:

This is an important evaluation strategy in constructivist classroom one learner or a group of learners give oral or written feedback to one another about their work, behaviour, participation etc.

Port Folios:

It is a representative collection of a students work. Generally a portfolio consists of the best work carried out by a student during the course. Essays, drawings, photos, CDs, written work etc. are kept in the portfolio to demonstrate a student's knowledge, skills and abilities. The portfolio of student work is used as the product by which the students are evaluated.

Projects:

The students are encouraged to discover answers to their questions through real-world investigations. Project work provides an opportunity to have an in-depth learning. The project prepared after all the investigation and exploration is then evaluated by teachers.

Simulation:

The use of role-play by the students on a given situation also is one of the strategies used for constructivist evaluation.

Student designed assessment:

Here teachers implement evaluation activities designed by students.

Scoring Student Performance

According to Norton and Wilburg (1998), for measuring student achievement educators will have to develop certain rubrics (rules or directions). Rubrics permit teachers to judge their students by means of "an established and written set of criteria for scoring student performance on tests, portfolios writing samples, presentations, products or other performance tasks".

"Criteria are necessary because they assist in the process of judging complex human performance in a reliable, fair and valid manner. Criteria guide judgements and make

public to students, parents and others the basis for these judgements. Unlike traditional assessments of right or wrong, alternative assessments invite a wide range of responses, and assessing the quality of product and sometimes the validity of the process of this range of responses depends on clear and visible standards. Developing rubrics is a way to make such judgments explicit". (Norton and Wilburg, 1998, p.235).

Constructivism allows for different interpretations of knowledge and meaning. Therefore, it is important for teachers to evaluate their students in such a way that multiple perspectives presented by the students are reflected and accepted in the evaluation process. (Jonassen, 1996).

Delhi
University
moderator
assess
interview marks

It is even better if a panel of evaluators assesses the student's work. Such a panel will take into account different perspectives of an issue and different solutions of a problem, which is an accepted contention of constructivism.

In constructivist evaluation, portfolios of students are important as they provide a meaningful view of the student's process of learning. Portfolios are collections of student work representing a selection of performance. It is a folder containing a student's best piece of work like art work, written work, essays, photographs and now a days even CDs, audiotapes, videotapes containing student products.

Changing typology of questions in examination

The constructivist evaluation emphasizes evaluation of the process of learning, progress of learning and also the product of learning. All these can be evaluated while the students are at work, during the whole session. But in the Indian context examinations are important which try to assess as to what extent the student is able to organize his knowledge, solve problems, think creatively and construct his own knowledge. In order to do so questions are asked in the examinations.

The traditional examination questions are textbook based and are largely memory oriented. The meta-cognitive skills like reasoning, creative thinking, application of knowledge in new situation, interpretation and drawing inferences etc. are neglected. The National Curriculum Framework, 2005 strongly proposed a change in the typology of questions so that reasoning and creative abilities replace memorization as the basis of

evaluation. Questions that are open-ended and challenging could be used for this purpose. Thus, typology here not only refers to the form of questions like multiple choice, short answer and long answer type but also refers to the style of writing a question. The new type of questions may be short answer and long answer type and written in such a way that the answers may not be fixed but present individual points of views of the students. In this way the new questions would be open-ended type. "Designing good test items and questions is an art and teachers should spend more time in thinking about devising such questions". (NCF, 2005). The NCF presents an example of a good test item, which is given below:

Traditional Type

1. State four considerations to be kept in mind while starting an iron smelting plant.
2. How does the shape of the bird's beak help in adaptation?

New Type

1. If an industrialist wanted to develop an iron smelting plant which site should she choose and why?
2. Draw the beak of a common bird seen in your neighbourhood. Based on the shape of the beak, explain what are likely to be its food habits and where in your neighbourhood is it likely to find its food?

Such questions, if posed in examinations, provide ample opportunity to the students to construct their own knowledge and come out with individualized answers rather than the same memorized answers, which are required, by the traditional type of questions.

Thus, questions in constructivist evaluation should be framed in such a way that they do not seem to be an exercise that the teacher wants them to do. They should have the following characteristics.

- present authentic tasks related to real life
- assess the construction of knowledge on the part of the students and not just memorization of facts.

- include multiple perspectives i.e. provide for different opinions and creativity of thought and expression.

Traditional evaluation includes multiple choice questions, which prompt the recall of factual knowledge. Students learn the content as it is without any modification or application. In contrast, constructivists take a more student-centered approach to evaluation. They present open-ended questions, use portfolios and student designed assessment.

Evaluating the answers

In traditional examination the answers are evaluated on the basis of presentation of right or wrong content. For example in the question on establishing an iron smelting plant the student should write all the considerations like availability of

- raw material
- cheap labour
- transportation
- market etc.

and the marks will be awarded on the basis of how many factors the student has dealt with and whether they are right.

On the other hand in the new question space has been given to the student to select his own site based on his own preference for which she has to give a convincing reason. In this case there will be multiple perspectives. Students will come out with different answers and their own arguments. The criteria for scoring, in such a case, will be

- what knowledge the student has constructed
- whether the arguments are convincing
- how well is she able to present his/her viewpoint

Thus, the scoring of an answer will have different criteria than the traditional type of questions. This is so because "the constructivist paradigm perceives learners as interpreting what they learn individually and their learning outcomes being different from

one another, instructors must learn to implement alternative methods with their students". (Bludau, Maddox, Pounds, 1998)

The constructivist approach to evaluation is, therefore, the subjective approach. It is also identified as the qualitative method based on individual performance. Learning outcomes are individual and personal constructions. Reality is a subjective construction, i.e. each student will construct his or her own interpretation about what is real and what is not. Reliability and validity are not important because the purpose of evaluation is not to measure learning outcomes in terms of statistical figures. (Lincoln and Guha, 1989)

Being a subjective approach, constructivism does not look forward to uniformity in evaluation. It takes into account multiple perspectives presented by students. It also advocates a panel of evaluators to assess the students' work.

4-22 CONTINUOUS AND COMPREHENSIVE EVALUATION

Introduction

In the post-independent era it was felt that the education system of India needed overhauling. Consequently, a number of Commissions and Committees were set up to look into the matter. The University Education Commission (1948) was the first to be set up just after independence. The Commission observed, "We are convinced that if we are to suggest any single reform in university education, it would be that of examination". The idea of continuous and comprehensive evaluation germinated when the Commission while stressing on the need of internal assessment, recommended: "No credit is at present given to class work in courses.... We feel that it will be conducive to efficiency both in teaching and learning." It also recommended that one third of the marks allotted to each subject be reserved for work done during the course of instruction. The significance of internal assessment was also reiterated by the Secondary Education Commission (1952-53). Subsequently, the Education Commission (1964-66) stressed that evaluation was a continuous process and thus formed an integral part of the total system of education. The Commission underlined the need of making the examinations a valid and reliable measure of educational achievements and devising techniques for measuring those aspects of students' growth that cannot be measured by written examinations. This idea culminated in the concept of Continuous and Comprehensive Evaluation (CCE) that was eventually highlighted by the National Policy on Education, 1986 and Programme of Action, 1992 as one of the examination reforms.

Currently, there are as many as 42 Boards of School Education in the country. These Boards act as important examining agencies both at the secondary and higher secondary levels. Besides being the examining

agencies at the secondary and higher secondary levels, these Boards are also supposed to introduce the CCE in the schools under their charge. However, not much headway has been made in this direction. Only six boards namely J&K, Manipur, Rajasthan, Assam, Tamil Nadu and CBSE have come forward to help the schools implement the CCE. Notwithstanding the efforts put in by these boards the scheme of the CCE could not take off.

Concept of Continuous and Comprehensive Evaluation

Evaluation is an integral part of teaching and learning process. Whenever a question is asked and answered, evaluation takes place. Thus, both teaching and evaluation overlap and merge into each other.

Evaluation is a systematic process of collecting, analyzing and interpreting evidences about students' achievement both in cognitive and non-cognitive areas of learning for the purposes of making a variety of decisions. Evaluation, therefore involves three components:

- information gathering
- information processing
- decision making

In continuous and comprehensive evaluation, two more terms are involved. The term 'continuous' refers to regularity in assessment. Since the growth of the child is a continuous phenomenon, evaluation has to be completely integrated with teaching and learning processes and the progress of the students should be evaluated regularly.

The term 'comprehensive' refers to both the scholastic and non-scholastic areas of pupil growth. The function of school is not only to

build up the cognitive abilities of the child but also to develop his non-cognitive abilities. This obviously can be ensured when the evaluation is made comprehensive.

The continuous and comprehensive evaluation, there, means a regular assessment of all the aspects of pupil learning in the school. It warrants adequate emphasis on both the formative and summative evaluation. While the formative evaluation is carried out during the course of instruction with a view to improving students' learning, the summative evaluation is done at the end of the academic year to promote students to the next grade.

The main purpose of formative evaluation is to monitor the instructional process in order to determine whether learning is taking place as planned. The result of such evaluation needs to be used for designing and providing remedial measures for slow learners and enrichment programmes for brighter ones. On the other hand, summative evaluation needs to be used for classifying, placement and predication of future success apart from promotion to higher class.

Characteristics of Continuous and Comprehensive Evaluation

1. The purpose of CCE is to bring about all round development of the student. It is, therefore, a school based system of student evaluation which includes both formative and summative evaluation. The evaluation is to be carried out by the teachers who teach the students.
2. Both the scholastic and non-scholastic aspects of pupils growth are evaluated through CCE.

3. Improvement in learning is the main focus of CCE. Therefore, diagnosis of weaknesses is emphasized in order to provide remedial teaching.

4. CCE provides for the use of multiple techniques of measurement. These include not only written tests but oral tests, observation techniques, interview, practical tests, rating scales, inventories, schedules, profiles etc.

5. CCE as formative evaluation, is built into the total teaching learning programme and is a part of daily routine for a teacher rather than done at a specific time as is the case in the system of formal examination. Only the summative evaluation, i.e. the final examination is done at a specific time in the school year.

6. In CCE the analysis and interpretation of evidences collected may be made on the basis of three different reference points.

- a. Self-referenced - how the student is progressing with reference to himself/herself
- b. Criterion-referenced - how the student is progressing with reference to the criteria set by the teacher i.e. the teacher finds out whether the student has attained the expected level of performance or not.
- c. Norm-referenced - how the student is progressing with reference to her/his peer group. This means the comparison of the performance of a student with the performance of other children in the class.

Implementation Strategy

In order to implement the CCE in Indian schools it is necessary to develop a scheme which is both academically sound and practically

feasible. This scheme may include evaluation of: (i) Scholastic and (ii) Non-Scholastic aspects.

Evaluation of Scholastic Aspects

What is to be tested: all the school subjects like languages, Maths, Science and Social Sciences.

Techniques of evaluation:

- written tests
- oral tests
- practical tests
- project work

Tools of Evaluation:

- class work
- assignment
- question papers
- diagnostic tests
- unit tests
- oral questioning
- quizzes
- performance tests

Periodicity of Tests

- built in with the teaching
- periodical tests
- terminal tests
- annual examination

Method of Reporting:

- Using 3 point letter grades for primary classes
- 5 point letter grades at upper primary classes
- 9 point letter grades at secondary and higher secondary classes.
- No declaration of pass and fail

Evaluation of Non-Scholastic Aspects

What can be Assessed: **Personal and social qualities**

- cleanliness
- truthfulness
- industriousness
- co-operation
- regularity
- punctuality
- discipline
- initiative
- spirit of social service
- sense of responsibility
- emotional stability
- obedience

Interests

- literary
- scientific
- musical
- artistic
- social service
- sports and games

Attitudes towards:

- teachers
- studies
- school matters
- own property
- school programmes

Values

- responsibility
- honesty
- equality of sexes
- respect of elders
- patriotism

Physical Growth

Co-Curricular Activities

- scouting
- guiding
- dance
- drama
- music
- painting
- debate
- quiz
- creative writing
- adventure activities
- sports & games
- community service
- gardening
- craft
- recitation, speech making

Techniques of evaluation: - rating scales
- anecdotal records

Periodicity: - day to day observation
- once every term
- medical check up can be done once in a whole year

Method of Reporting: - letter grades on a three point descriptive remarks.
- not to be used for promotion
- no negative remarks

It may be mentioned here that the suggested list of a select four or

five personal and social qualities which they can evaluate depending on the resources and facilities available with them. Similarly each child can be evaluated for at least one particular interest and one particular co-curricular activity. From the list of attitudes and values also the schools may select on which they wish to evaluate their students.

The letters grades or remarks regarding the non-scholastic areas may be reported on the report card of the students.

Self Appraisal by Pupils

Under the CCE students of upper primary and secondary classes may be asked to prepare a self appraisal about their achievement pertaining to cognitive and non-cognitive abilities. This may, however, not be possible at primary stage of schooling. Self appraisal is useful for the students because it will boost their awareness, motivation and involvement in their work. It is because they would know and reflect upon their weaknesses. While developing the self appraisal, the pupil is expected to carry out the SWOT analysis wherein s/he is to identify his/her strength/weaknesses. S/he also has to mention the opportunities that s/he has got in various fields. Besides s/he can also enumerate the threats or the difficulties s/he faces her/his life. In addition to this, students may also mention the significant personal experiences which have a bearing on their overall attainment.

Since the students are not mature enough, they need to be given orientation by the teacher so as to make them competent to write their self appraisal in a more scientific way.

The portfolios systematize: (i) teaching learning experience of student; (ii) selected products of student's experience, for example a sample of creative writing or a beautiful painting made by the student; (iii) report on demand performance; (iv) reflections of students, teachers and parents upon the products and performance of students; and (v) cumulative records of the progress of students.

Besides, portfolio also gives an idea of how the school manages to keep the information about individual students. Adoption of portfolio system provides an opportunity to hold discussion community wide and help to develop public attitudes and values in relation to education.

Use of portfolios generally develops interest towards studies among the students. The teachers have a better understanding of student's work and the students develop more access with the teacher. Students also feel that the portfolios help them to know their strengths and weaknesses. Thus it represents their abilities and their learning characteristics. Not only this, it also helps in strengthening the ties between home and school. Parents come to know through their projects as to where they have done well and where they have recessed up.

Descriptor portfolios may contain description sheets for both students and parents. The sheets for students may include their achievement record in different scholastic and non-scholastic areas. Regarding parent sheets there will be place for their comments which they are going to make after they go through the student sheet.

Anecdotal Records

Sometimes in schools a teacher feels that some specific information about a student needs to be recorded. For this anecdotal record is useful. It is a sheet on which the objective description on an incident which has been observed regarding a student, without any interpretation of the meaning of the behaviors, can be recorded by the teacher. Later, this can be used for obtaining data pertaining to a variety of learning outcomes and various aspects of personal and social development.

Anecdotal Records provide a description of behavior in natural setting and highlight and evidence of exceptional behavior which may otherwise be overlooked by other tools. Records of both positive and negative incidents may be kept but it is pertinent to add that under no circumstances negative incidences like stealing, damaging school property, violating school rules etc. will be communicated in writing. This will be used only for corrective measures. For making any judgment on the basis of anecdotal record a teacher has to collect a number of anecdotes with regard to a particular student before drawing inferences.

Portfolios

Portfolios are useful in documenting the teaching learning and accessing the records of the progress of the student. It is an instrument of evaluation and accountability. (Baron & Wolf 1996). It is also an instrument of self-presentation. Portfolios are the folders or portable cases for carrying loose papers. This has been adopted in educational evaluation to keep the record of achievement of children. Students can keep the best samples of their work in the portfolio like a good essay, a poem that they have written, a painting or drawing, the recording of a song or debate, etc. In the system of assessment where teaching learning and assessment are integrated, portfolios play a crucial role. It serves the purpose of record keeping, criticizing, exhibiting, and evaluating to promote increased learning.

class	detention in all the five classes)	and annual examination	examination
Periodicity	Evaluation will be integrated with instructions. Oral questioning, observation, dictation, class work etc. all will form part of informal formative evaluation. Class tests-monthly tests in all the subjects.	Same as primary. Besides terminal tests may be introduced	Monthly tests + terminal tests + annual examination

Recording and Reporting

Teachers are expected to maintain diaries in which they can note observations regarding their students. Record of unit tests, remedial instructions, assignments, projects, oral work, etc., for each subject for each term should be kept by the teacher. Record of student's participation in various co-curricular activities, her social and personal qualities, her interests etc., may also be kept. The records can be maintained by preparing portfolios of each student.

The achievement of the student in scholastic areas, growth of her socio-personal qualities, her participation in co-curricular activities, her interests and her grades on class work, project work, oral work, assignments etc. and the judgment of the teacher based thereon should be reported to the student and her parents for the feedback purposes.

CCE at Different School Stages

Regarding the non-scholastic aspects of CCE, there may not be much difference from one stage to another. But in scholastic aspects the three school stages may differ to some extent which is evident in the following table:

	Primary Stage	Upper Primary Stage	Secondary Stage
Nature of Testing	Teacher made diagnostic and criterion referenced tests	Teacher made diagnostic and criterion referenced tests	Teacher made domain referenced achievement tests
Technique of testing	Observation, oral and written	Observation, oral, written and practical testing	Observation, oral, written, practical testing
Tools of testing	Oral questioning, unit tests, assignments, class work	Oral questioning, unit tests, assignments, project work, class work, practical work, self appraisal by the pupil.	Oral questioning (in certain areas) unit tests, assignments, project work, class work, self appraisal by the pupil.
Promotion to next	Based on CCE (Non	On the basis of CCE	CCE and annual

Management of CCE

The successful implementation of the CCE scheme ultimately depends on the head of the institution and the teachers. For this, they need to co-operate with each other and plan the work²⁷ for the whole year. The Principal and heads of different departments — languages, science, maths, social sciences, art and craft, activities, etc. may develop an action plan indicating the broad framework, identifying the tasks and roles of different teachers, schedule of activities, mode of implementation and feedback mechanism. After taking all the above into consideration, one period every week may be given to each teacher extra to work for implementing the scheme. This may be considered as the legitimate part of the work of teachers.

Capacity Building

All the functionaries involved in the implementation of the proposed scheme right from managers to teachers will require capacity building. The NCERT and SCERTs along with DIETs are expected to play a vital role in providing in-service orientation to the teachers and other functionaries in school for introducing the scheme. The members of school management and evaluation officers of the organization which control the administration of schools will need special orientation programmes because these are the persons who prepare guidelines for evaluation in schools which the teachers value the most and act accordingly.

Climate Building

The success of any programme depends on how it is planned,

designed and received in the field. Conscious efforts need to be made to educate the parents regarding the merits of the continuous and comprehensive school based evaluation carried out by the teachers. It is to be brought home that the teacher knows his students best and it is his right to evaluate them.

Accountability

It has been observed that where there is accountability of functionaries, any scheme works very smoothly and successfully. Where there is no accountability, things tend to go haywire. If some accountability is injected in our system specially the governmental system of schools, things will definitely brighten up. It will go a long way in building up the motivation of teachers and in turn will result in better teaching and learning in schools.

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A-D-Tewari

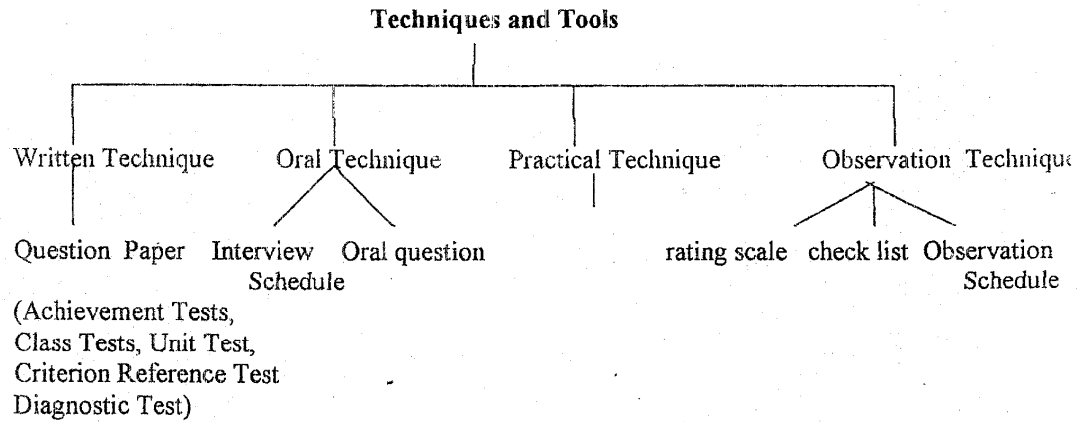
Tools and Techniques of Assessment

Introduction

The performance of the child in different school subjects can be assessed with the help of various tools and techniques. The selection of tools and techniques of assessment depends upon the nature of the subject area and the objectives to be assessed. Hence, in order to make a right choice of tools and techniques, we should be clear about what exactly is to be assessed. Further, there is a need to know the strengths and weaknesses of tools and techniques of assessment in order to use them purposefully, meaningfully and effectively. Since a variety of objectives have to be assessed, different assessment techniques and tools need to be used simultaneously. This would help you to collect more evidences on various aspects of learner's achievement on different objectives. Therefore, it is desirable that one must acquire the understanding about different techniques and tools of assessment. In this section we will share with you about various tools and techniques of assessment to be used for assessing the achievement of students in different scholastic areas. It will also clarify the difference between techniques and tools along with the characteristics of a good tool/technique of assessment.

Techniques and Tools

As a practioner, you are concerned about the scholastic growth or the performance of the children in different subject areas. For this, you use different tools and techniques of assessment. Sometimes, it becomes difficult to distinguish between technique and tool. A **technique is a definite procedure followed for understanding the performance of the learner whereas a tool is an instrument to collect evidences about student's performance.** Different techniques and tools of assessment used in scholastic areas are as follows.



Written Technique

We all are familiar with this technique. It is mostly used to assess the students' achievement in different school subjects. In this technique students have to write/select the answers of the given questions i.e. they have to respond to the question in written form.

Under written technique, the tool used is a test. It can be a unit test, achievement criterion referenced test or diagnostic test. A test is a tool used for measuring different kinds of attributes of human personality, achievement of students, skills aptitudes etc. A test is a combination of a variety of questions assembled together. It is a structured presentation of items or questions to which a students responds and they are scored in terms of correctness. A test is administered through a 'Question Paper' which comprises a number of questions or items.

It is necessary that the question paper should be valid, reliable and usable. These characteristics have been discussed later.

Written technique is very useful in assessing students as it can be planned carefully in advance so that the information that the teacher gets about students achievement is reliable and valid. The answer sheets can be kept for a long time which makes their assessment. The greatest advantage of this technique is that a large number of students can be tested at the same time and at various places. That is why public examinations generally use written technique for assessing students in most of the subjects. The items

used in written techniques may be in different forms such as easy, short answer, long answer, multiple-choice questions etc. encompassing both supply and selection types.

The written technique has some limitations also. It cannot be used to test all aspects of learning objectives such as skill in handling apparatus, project work etc. The preparation of tests takes a long time. So the frequency of written tests has to be limited in a session.

Oral Technique

In oral technique, questions are asked orally in a face to face situation. These questions may be asked either spontaneously or deliberately. When we ask questions on the spot and elicit answers from the students, it is called spontaneous oral testing. On the other hand when we prepare questions before hand to assess the progress of learners, it is known as deliberate oral testing. In the school subjects like work experience, mathematics, science and technology, languages and other activities like project work etc. oral testing can be used for gauging students' achievement.

Proper care should be taken so that subjectivity does not creep in oral testing. To reduce subjectivity, one can seek help of colleagues in assessment, as the presence of more than one evaluator it helps in improving objectivity. Further, if possible, if the students are asked the same questions, it would improve the efficiency of the assessment and fairness of the judgement.

Oral testing is a useful technique to assess the examinees' own reflection on a certain issue. It permits a flexibility that the written technique usually lacks. The examinees can be asked to expand, clarify or justify their answers. An important point can be probed in depth. You, as an examiner, can get a clear picture of a student's abilities and thinking. Also the problem of cheating can hardly arise in oral testing. Bluffing is also not possible for the students to manage at the spur of the moment. Moreover, for the examinees an oral examination can be a learning experience. Interview schedule, puzzle, quiz group discussion, oral presentation etc. can be a part of this technique. Some details about the interview schedule and oral questions are given as under.

Interview Schedule

Interview schedule as a tool can be used to assess the scholastic achievement in different subject areas of the students in a face to face setting. A person who conducts the interview is known as 'interviewer'. He asks the questions from the student(s) (interviews) either in a formal or in-formal setting. The process of interview may be completely structured (Controlled), semi structured or unstructured (free). In a structured interview the questions to be asked are formulated well in advance and are presented in a uniform way to all the interviewees. In semi structured interview some of the questions may even be formulated when interview is in progress. In the unstructured or free interview, the questions are spontaneous not predetermined. They are rather formulated on the spot and are asked quite spontaneously. Viva voce examination during practicals is one such example.

Oral Questions

A teacher uses oral questions at a number of times in the classroom to know about the performance of students in different subjects. Actually, oral questions provide stimulus to respond orally. They have same strengths (and weaknesses) as written questions, plus they assess students' speaking ability. They are highly effective for assessing informational topics, thinking, reasoning and communication skills. They can be used at different stages of a lesson like at the beginning, during and at the end informally to recapitulate the lesson. Oral questions can also be asked in a formal situation to assess the achievement of students.

Limitations of Oral Technique

Oral technique has certain limitations due to which it is used relatively for educational assessment. Oral testing is essentially an individual process. It is very time consuming. In fact if you need to know about a student's abilities fairly well, your testing time should be at least 30 minutes and also more than one examiners should be used to obtain

objective assessment. Obviously, these conditions make oral testing a bit impracticable technique of assessment large group.

Another disadvantage of this technique is that for some students the stress of fact to face confrontation may upset their normally disposition while for other art of speaking and pleasantness may help to hide genuine deficiencies.

Practical Technique

As the name suggests this technique is mostly used to assess the performance of students different levels of skills in subjects like science, home science, social science, work experience, art education, physical education etc. In this technique, students have to perform certain activities (tasks) or experiments in a subject. During the experimentation, various skills or behaviours related to the subject are observed. The performance of the student is judged through observation of the process followed while performing the task or the product of the task or both. Thus, on the basis of performance, in the given experiment students' assessment in different subject areas is made.

One of the limitations of this technique is that subjectivity may creep in assessment. This can be minimized if a set criteria with well defined parameters is worked out by the examiners before the practical examination.

Observation Technique

It is one of the most important techniques of assessment used to assess the process and progress of learner when he/she is at work. You can observe students through class assignment, project work, experience activity etc. It helps in knowing the pace and level of learning of the learner. We often use this technique knowingly or unknowingly. This technique may be used in two ways – spontaneously and deliberately. When we observe a learner in natural setting without any prior planning of observation, then it is known as spontaneous observation. It has inbuilt diagnostic and remedial components. On the other hand when we create setting for observing certain behaviour of the learner on pre-planned or pre-determined basis then it is called deliberate observation. It helps to know

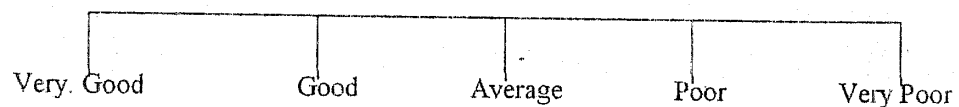
hard spots (difficulties) of learning of the learners. On the basis of hard spots, we can plan for further remedial action.

For observation, observation schedules may be developed and used. In this way observation schedule is the main tool for this technique. Some detail about popular tools for this technique is given as under :

Rating Scale

You have observed that in our daily life we rate individuals or things on the basis of degree of presence or absence of certain qualities or characteristics one is required to have. Suppose, we want to rate the performance of class IX home science students in cooking. For this, observation is made and the performances of the students is rated as very good, good, average, poor and so on depending upon the quality of food cooked. In this way, we ascertain the degree, intensity or frequency of a variable and put the individual's performance on a scale and rate them on different points of the scale. In simple words, we categorize individuals in different categories on the basis of their performance for a particular trait. This sort of categorization is called rating. Generally, rating is done on a three point or a five point scale. The purpose is to assess the differences in performance on a particular attribute. For example, students performance for different aspects in language may be rated on a five point scale such as –

Performance in Language (Speaking)



Following may be the criteria for using the observation technique for the speaking performance in language.

- Fluency in speaking
- Selection of appropriate vocabulary to express views.
- Confidence in speaking.
- Grammatical correctness while speaking.

Characteristics of a Good Tool

Whenever we have to construct a tool/test or make a selection out of many available tools, we have to ensure that the tool is upto the mark, suitable, usable and has some good and favourable reasons for selection. For this, we must be sure of some of the requirements or characteristics which make the tool good. These are – validity, reliability and usability. Each of these characteristics has been discussed in the following paragraphs.

Validity

The validity of a test concerns what the test measures and how well it does so. If a test measures what it proposes to measure, it is said to be a valid; if it does not, it is invalid. In the words of Cronbach, "Validity is the extent to which a test measures what it purports to measure".

Reliability

The second most important characteristic of a test/tool is reliability i.e. it should measure consistently what it measures. In other words a test should reflect a true measure of the students' capabilities. In reliability, we are concerned with the consistency and stability of scores. If we measure the same trait again and again, the scores should be almost similar. Neha received a score of 60 in a test she took the first time and a score of 62 the second time. Her scores are consistent. She remains in the average group. If her score had shifted to either to the lower group or to the upper group, then it could be said that the test was not reliable.

Reliability is of two types. One is *test reliability* which means that if the same test is given to a particular group on two different occasions, the result will be more or less the same. Second type of reliability is *scoring reliability* which means that the marks will be same (1) if the test is marked by two or more examiners or (2) if the test is marked by the same examiner on different occasions. This reliability is also known as objectivity.

- Appropriacy of subject matter according to the task assigned.
- Flow of ideas.

Further, the rating scale can be qualified by assigning scores on each point. In the example, given above, 5, 4, 3, 2, 1 marks can be assigned for very good, average, poor and very poor respectively. To know the over all performance in Language (Speaking), of an individual such of the scores for different aspects show by him/her of language may be added up.

Check List

Check list is basically used for recording purpose whether a particular characteristic is present or absent. In simple words, a check list calls for a simple Yes/No judgement. It is a useful device for assessed those performance skills that can be divided into a series of clearly defined specific actions.

A checklist can be developed by following the steps given below :

- Identify and state clearly each of the indicators in terms of specific actions desired in the performance.
- Add to the list those actions that represent common errors, if these are useful in assessment.
- Arrange these desirable and undesirable (common errors) indicators i.e. the desired actions and likely errors in the order they expected to occur.
- Provide a simple procedure or develop a mechanism of checking each indicators i.e. actions as they occur.

The above mentioned steps for the preparation of a check list are also applicable for preparing a rating scale.

Once the checklist is ready, one can fill it up for assessment purpose and make judgements. A pupil can also use a check list for self-assessment purposes.

This can be taken care of by giving objective type questions where the marking is same, who-ever scores the test papers.

Reliability of a test can also be enhanced by giving a large number of tasks. The more tasks are given, the more chances of a test being reliable. It is, therefore, advisable that you give a large number of short answer or objective type question in a test rather than a few essay type questions. Reliability goes lower in case of essay type questions where the marking depends on examiners subjectivity.

Usability

Usability of a test refers to various practical aspects of the assessment process that should be considered. These are :

(a) Ease of Administration

Test should be easy to administer. It should contain complete and clear directions regarding the administration.

(b) Time Required for Administration

Length of the test should be according to the time stipulated. Adequate time should be given to the students to do the test. If the test is too long or too short, it may not be practical to use it for better assessment.

(c) Ease of Scoring

The scorability is also to be considered while using a test. When large number of students are involved test can be scored quickly is to be used. But when only one class is to be tested you can score a test which may also consist of long answer questions.

(b) Ease of Interpretation

A good test is one, which could easily be interpreted because the results have to be presented to students or to their parents. Moreover, if the results are interpreted correctly and applied effectively, they will contribute to more intelligent educational decisions.

At the school level one should make an attempt to meet the above characteristics of a good test that is prepared for assessment students.

Exercise

1. What are the different techniques of assessment of scholastic performance?
Which technique do you consider best to assess scholastic achievement in your subject? Why? *Group discussion*
2. What are the points of consideration to choose a good tool of assessment?
Explain with suitable examples?
3. Prepare a rating scale for assessing practical skills in any subject that you teach?
4. How do you conduct practical examinations in subjects like science, physical education, computer science etc?
5. Explain how you can use observation as a technique of assessment in scholastic areas?

**TABLE 8 : FORMAT OF A SCHOOL CERTIFICATE
NAME AND ADDRESS OF THE SCHOOL**

School
Logo

ABOUT THE SCHOOL
INCLUDING BOARD TO WHICH AFFILIATED

Session.....

**PART I
BASIC INFORMATION**

Name of the Student.....
(In Capital Letters)
Date of Birth
Scholars Register No./Roll. Number
Father's Name
Mother's Name
Permanent Address with Pin Code
Telephone/Mobile Number.....

STUDENT'S
PHOTOGRAPH

ATTESTED
BY
THE PRINCIPAL
WITH SCHOOL
STAMP

**PART II
HEALTH STATUS**

Assessment Aspect	Class..... Section		Class..... Section		→
	First Assessment	Second Assessment	First Assessment	Second Assessment	
Height					
Weight					
Eye Sight					
Hearing					
Physical Problem if Any					

PART III

ACADEMIC ACHIEVEMENT

Assessment Aspect	Class..... Section		Class..... Section		----->
	First Assessment	Second Assessment	First Assessment	Second Assessment	
First Language					
Second Language					
Mathematics					
Science					
Social Science					

	Class..... Section		Class..... Section		----->
	First Assessment	Second Assessment	First Assessment	Second Assessment	
Work Experience					
Art Education					
Health Education					

PART IV

PERSONAL AND SOCIAL QUALITIES

Assessment Aspect	Class..... Section		Class..... Section		----->
	First Assessment	Second Assessment	First Assessment	Second Assessment	
Regularity					
Punctuality					
Discipline					
Habits of Cleanliness					

PART V
ATTITUDES AND VALUES

	Class.....	Section	Class.....	Section	→
	First Assessment	Second Assessment	First Assessment	Second Assessment	
Towards studies					
Towards School mates					
Towards School Programme					
Towards School Property					

PART VI
INTEREST RELATED ACTIVITIES

Area	Aspect	Activity	Class.....	Section.....	Class.....	Section.....
			First Assessment	Second Assessment	First Assessment	Second Assessment
ADDITIONAL ACTIVITIES IN WHICH PARTICIPATED						

PART VII

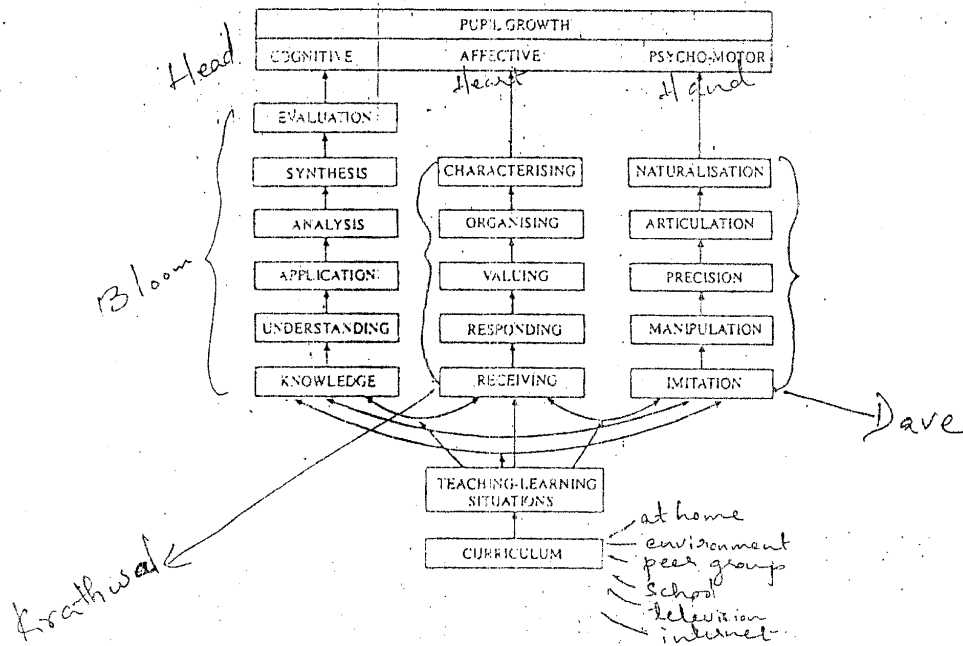
OUTDOOR ACTIVITIES

ASPECT ACTIVITY		Class.....Section..... Class.....Section.....			
		First Assessment	Second Assessment	First Assessment	Second Assessment
GAMES					
SPORTS					
.....					

	ADDITIONAL OUT-DOOR ACTIVITIES IN WHICH PARTICIPATED

▲▲▲

COGNITIVE, AFFECTIVE AND PSYCHO-MOTOR ABILITIES



Relationship between these three domains have been developed by H-S. Srivastava (Speaker/deliverer)

and in teaching learning situations can lead to different quantum of growth but cannot be decided which would grow positively or negatively.

Academic achievement and health status will be recorded numerically and others will be rated symbolically ABCDEFGHIJ

A SUGGESTED OUTLINE OF THE SCHEME OF COMPREHENSIVE AND CONTINUOUS EVALUATION

1.1. Health Status

Facets of Evaluation	Operational Strategy
Health Status - Height - Weight - Ratio of height and weight - Chest (normal) - Chest (expanded) - Eyesight - Hearing - Teeth - Physical defects (if any) - History of long diseases (if any)	Techniques of Evaluation - Medical check-up - Observation by the teacher Tools of Evaluation - Doctors own instruments - Rating Scales Periodicity of Evaluation - Once every half-yearly Coverage - For all students

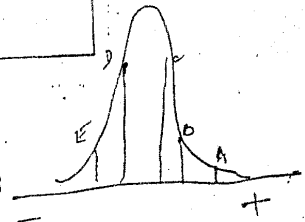
1.2. Academic Achievement

Facets of Evaluation	Operational Strategy
Internalisation of content areas Acquisition of abilities/proficiencies, competencies and psychomotor skills	Techniques of Evaluation - Written Examinations - Oral Examinations - Practical Examinations Tools of Evaluation - Question Papers - Unit Tests - Assignments - Project Survey Reports - Diagnostic Tests Periodicity of Evaluation - Periodical Tests - Terminal Tests - Special Tests To be reported half-yearly as the mean percentage of all types of evaluation in all subjects during the span in question Coverage - For all students

ways of scale can be developed

Frequency
Never Rarely Usually Mostly Always

ability
Poor Fair Good Outstanding Excellent



3.3 Personal and Social Qualities

Facets of Evaluation	Operational Strategies
Compulsory Regularity Punctuality Discipline Habits of cleanliness Optional Initiative — <i>opening chair, etiquette</i> Cooperation Diligence Civic consciousness Spirit of social service Emotional stability Sense of Responsibility	Techniques of Evaluation Observation Tools of Evaluation Anecdotal Records Rating scales Periodicity of Evaluation Once every term based on — Classroom behaviour — Behaviour in cocurricular activities — Other incidental behaviours Coverage The first four personal and social qualities to be rated in respect of all the students and the rest of them to be evaluated only when evidences are available.

3.4 Interests

Facets of Evaluation	Operational Strategy
Literary Interests Extra Reading Debates Recitation Creative Writing Speech making Scientific Interests Nature study Observation Exploration Experimentation Science Club Activities Artistic Interests Drawing Painting Artistic Embroidery Craft Sculpture Cultural Interests Music Vocal Instrumental Dramatics Dance Folk Classical	Techniques of Evaluation Observation Tools of Evaluation Anecdotal Records Rating Scales Periodicity of Evaluation Continuous Evaluation Certificate entry at least twice in an academic session Coverage Extra reading will be compulsorily rated for every student Every student will select only one activity from any one of the interests for being formally evaluated. In case a student participates in more than one activity, it will only be mentioned in the certificate without being awarded a grade.

only one activity among following to be taken for evaluation & others to only be

2.5. Attitudes

Facets of Evaluation	Operational Strategy
<i>Attitudes Towards</i> - Studies - Teachers - School-mates - School Programmes - School Property	<i>Techniques of Evaluation</i> Observation in the classroom and outside Observation in the course of participation in cocurricular activities <i>Tools of Evaluation</i> Anecdotal Records Rating Scales <i>Periodicity of Evaluation</i> Continuously observed Entries in the certificate, to be made twice in an academic session <i>Coverage</i> All facets to be evaluated in respect of all students.

2.5.6. Values

Facets of Evaluation	Operational Strategy
Dignity of labour Honesty Courage Courtesy Tolerance Forgiveness Team Spirit etc.	<i>Techniques of Evaluation</i> Observation in different situations <i>Tools of Evaluation</i> Anecdotal Records Rating Scales <i>Periodicity of Evaluation</i> Continuous Evaluation For purposes of entry in the certificate consolidated ratings will be given twice a year, for each value <i>Coverage</i> To be rated only when evidences are available

2.7 Cocurricular Outdoor Activities

Facets of Evaluation	Operational Strategy
Games and sports Gymnastics Swimming/Govt. Guiding Scouting Gardening Adventure Activities Community Service Junior Red Cross First Aid	<i>Techniques of Evaluation</i> Observation <i>Tools of Evaluation</i> Anecdotal Records Rating Scales <i>Coverage</i> <i>One game or sports compulsory for everybody and others will be recorded/rated</i>

Determination of an Overall Grade from Sectoral Grades
(Example : Recitation)

Numerical values of different symbolic grades	Symbolic grades obtained by a student on different evaluative criteria of recitation	Numerical grades corresponding to the symbolic grades obtained by a student	Derivation of a symbolic mean overall grade
A = 5 B = 4 C = 3 D = 2 E = 1	Correctness = A Modulation of voice = C Gestures = B Emotional Appeal = C	5 3 4 3	$5 + 3 + 4 + 3 = 15$ $= \frac{15}{4}$ $= 3.75$ $= B$

Range of Different Grades

E	D	C	B	A
0.6 - 1.5	1.6 - 2.5	2.6 - 3.5	3.6 - 4.5	4.6 - 5.5
E	D	C	B	A

Grades and Grade Descriptions

Grade	Some Grade Descriptions			or any other description relevant to the context
A	Very Good	Highly Appropriate	Always	
B	Good	Mostly Appropriate	Mostly	
C	Average	Partially Appropriate	Usually	
D	Marginal	Rarely Appropriate	Rarely	
E	Poor	Highly Inappropriate	Never	

July			
August	10%		
September	10%	30%	40%
October			
November			
December			
January			
February	10%		
March			
April			

Minimum passing be 40% not 33% or 35%

12.4. TOOLS OF EVALUATION IN CCE

As Anecdotal Records and Rating Scales have been indicated as the tools of data collection and evaluation, it is desirable to present one sample of each.

Format of Anecdotal Record Form

Name of the Student.....Class.....Section.....Session.....		
Occasion and Place	A Factual Account of the incident or situation as observed by the Teacher	Teachers Comments or Suggestions
TEACHERS SIGNATURE AND DATE		

SCHOOL-BASED EVALUATION

A Sample Rating Scale for Evaluating Discipline

