Continuous and Comprehensive Evaluation: A Device to Improve Learning Standards at the Elementary Level

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This paper underscores the problems inherent in the traditional examination system and advocates the implementation of a continuous and comprehensive evaluation system at the elementary level, that will cover both scholastic and non-scholastic areas of a student's life at school.

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Introduction

Education is perhaps the most important instrument that is used for developing human resources the world over. For high quality output it is necessary that the educational input too should be of high quality. Whether the education imparted is of high quality or not can be judged best by the standard of learning that the students achieve. Various studies conducted by institutions like the National Council of Educational Research and Training (NCERT) and National Institute of Educational Planning and Administration show that the learning achievement at the elementary stage is quite poor in India.

A study of student achievement in Class IV and Class V from schools in the 'privileged urban zone' in Madhya Pradesh found that 70 per cent of Class IV and 60 per cent of Class V children had not mastered competencies expected from Class II children in Hindi and Mathematics. Besides, in a 'highly underdeveloped rural zone', no Class IV or Class V child had mastered the Class II competencies (Govinda and Vergese, 1993).

In a study conducted in 23 stages, the average achievement in Class IV for arithmetic and language was found to be 46.4 per cent (Shukla, 1994). Seen from the point of view of the system where 33 per cent is

supposed to be the pass mark this average may be considered quite satisfactory. But seen in the light of todays's minimum levels of learning approach, where those with 80 per cent are termed masters, this achievement is quite low. Therefore, the foremost challenge that education at the elementary stage has to face is improvement in learning standards.

Various strategies are necessary to achieve an acceptable level of quality in education, such as, increasing finance for education, improving the preparation, motivation and deployment of teachers and improving the quality of textbooks as suggested by the Word Bank Document, 1996. In a country like India, there is need for low cost strategies aimed at enhancing learning standards. The use of Continuous and Comprehensive Evaluation (CCE) can be one such strategy.

Evaluation can be a powerful, low cost means of influencing the quality of what teachers teach and what students learn in schools. This paper suggests two ways of improving the learning standards in schools through the use of CCE — one is improvement in the quality of the tests the schools design, and the other is areas of learning that the schools assess.

Problems with the Traditional Examination System

In a modern society, education can only thrive in a context of examination (Cox, 1969). This sentiment is still shared by most people and therefore, examinations continue to be a pervasive feature of our educational system. But the traditional examinations suffer from many deficiencies.

Traditional examinations attempt to test the students' achievements within a short period of three hours, and classify them as 'pass' or 'fail', first class, second class, third class and so on. 'To what extent are such examination results a valid representation of the individual's educational experience and achievement?' is the question raised by Buckle and Riding (1988). This examination does not give any importance to. the work done throughout the year in terms of projects, assignments, tests, class work and so on.

The present examination lays considerable emphasis on memorisation. A large number of questions in the examination demand only the recall of information on the part of the students. The meta-cognitive skills are either absent or are tested in a very small percentage.

The traditional examination system does not have any provision for the assessment of non-scholastic areas such as personal social

qualities, interests, attitudes, values, and so on. Consequently these areas are neglected in schools, and the all-round development of the pupil's personality remains an evasive goal.

Examinations create psychological fear and tension in the minds of the students because their results are given undue importance in society. This leads to various malpractices by students in order to pass the examination. It also leads to certain undesirable practices in teaching and learning in schools. Both teachers and students concentrate on only selected portions of the syllabus from the examination point of view and do not pay much attention to the subject as a whole. Students also work hard only when the examination approaches and not throughout the year. Thus, the existing mode of summative assessment suffers from major shortcomings and is not able to give a true picture of what students learn throughout the year.

Continuous and Comprehensive Evaluation

New assessment approaches which are formative in nature are being developed. They place emphasis on what has been achieved by the student rather than on classifying him as 'good' or 'bad' (Council of Europe, 1986).

The new approach which has been developed in India is known as Continuous and Comprehensive Evaluation. The idea of school based evaluation, earlier known as internal assessment was floating in the educational circle as early as the 1950s. The Bhopal Seminar on Examinations in 1956 gave it a concrete shape. Later a scheme of internal assessment was tried out by the Rajasthan Board of Secondary Education, Ajmer, in collaboration with the NCERT in 1969 and by Tamil Nadu in 1974.

This scheme covered both scholastic and non-scholastic areas of pupil growth and provided for a separate certificate by the school under the seal of the Board of Secondary Education. Gradually these schemes dwindled into nothingness as people lost faith in the validity of that certificate.

However, the idea was regenerated by the National Policy of Education (NPE), 1986, when it mentioned:

> Assessment of performance is an integral part of any process of learning and teaching. As part of sound educational strategy, examinations should be employed to bring about qualitative improvements in education.

Apart from making examinations valid and reliable and de-emphasising memorisation, in functional terms this should also

mean the introduction of CCE that incorporates both scholastic and non-scholastic aspects of education, spread over the total span of instructional time in schools.

Thus, the NPE, 1986 (India, 1986), and the Plan of Action (India, 1992) have recommended the introduction of CCE of pupils to bring about qualitative improvement in not only the instructional programme but also in the learning achievement of students at all stages. In fact, evaluation is envisaged as an integral part of the teaching and learning process.

*Concept of Continuous **and** Comprehensive Evaluation*

There are three terms involved in the framework of continuous and comprehensive evaluation. These are 'continuous', 'comprehensive' and 'evaluation'.

The term 'continuous' refers to regularity in assessment. The growth of a child is a continuous process. Therefore, the students' progress should be evaluated continuously which means that evaluation has to be completely integrated with the teaching and learning process.

The term 'comprehensive' refers to both the scholastic and non-scholastic areas of pupil growth. The function of the school is not only to build up the cognitive abilities of the child, but also develop his/her non-cognitive abilities. This can be ensured when the evaluation is comprehensive.

Comprehensive evaluation covers the whole range of student experience in the context of total school environment. It includes aspects like physical, intellectual, emotional and social growth. Thus the scope of evaluation is broadened from subject-related intellectual areas to non-scholastic areas like social-personal qualities, interests, attitudes, values and physical growth.

The third term is 'evaluation'. Evaluation is the process of finding out the extent to which the desired changes have taken place in the pupils. It, therefore, requires collection of evidence regarding growth or progress, so as to use that information for decision-making. Thus, information gathering, judgement making and decision taking are the three phases of the process of evaluation.

Thus, CCE means a regular assessment of all the aspects of pupil development in the school.

Characteristics of Continuous and Comprehensive Evaluation

1. The purpose of CCE is mainly improvement in learning and diagnosis of weaknesses so that remedial measures can be provided.

2. Both the scholastic and non-scholastic aspects of pupil growth are evaluated through CCE.
3. The CCE is the informal evaluation in school carried out by the teachers who teach the students. The assumption is that the teachers know their pupils best, and that it is their right to evaluate them.
4. The CCE provides for the use of multiple techniques of measurement. These include not only written tests but oral tests, observation, interview, practical tests, rating scales, inventories, schedules, profiles and so on.
5. The CCE is built into the total teaching learning programme and is part of the daily routine for a teacher, rather than done at a specific time in the year as in the formal examination system.
6. In CCE, analysis and interpretation of evidence collected may be made on three different levels.
7. With reference to the student, that is, how the student is progressing, what are the hard spots and what are the learning gaps. This helps the learner improve his/her learning.
8. With reference to the peer group, that is, where a particular student stands with reference to his/her class. This means that the performance of a student can be compared with the performance of other children in the class. This motivates the children to do better.
9. With reference to the criteria set by the teacher, that is, the teacher finds out whether the student has attained the expected level of performance or not. This is in keeping with the idea of minimum levels of learning (MLL) wherein the curriculum is defined in terms of achievable competencies. The minimum achievement level is supposed to be 80 per cent wherein those with 80 per cent may be termed as masters and those below 80 per cent as non-masters. The non-masters need to be given remedial instruction so as to bring them at par with their counterparts.

Continuous and Comprehensive Evaluation and Improvement in Learning Standards

From the above mentioned characteristics of CCE it is evident that the basic purpose of this evaluation scheme is to improve learning by making evaluation an integral part of the teaching-learning process. Evaluation is to be used for improving student achievement as well as teaching-learning strategies. To operationalise CCE, different steps are

to be followed. On the basis of the feedback from the tests, diagnosis of the hard spots of learning is made.

After diagnosing the gaps in learning, remedial instruction is provided so that weaknesses can be removed. Sometimes this process may demand the reteaching of the whole unit or a change in the strategy of teaching. The students are then retested to find out the improvement in learning.

The CCE can be used at all stages of education but it is very useful at the elementary stage, as in India, evaluation till the elementary stage, is the school's prerogative. An outside examination agency like the State Board of Education does not come into the picture at this stage. It is up to the schools to manage their evaluation system on their own.

Moreover CCE is the only evaluation process which goes well with the MLL approach (which at present is working at the primary stage and is shortly going to be extended to the upper primary level). CCE gets integrated with the MLL based teaching-learning programme in the elementary school.

Continuous and Comprehensive Evaluation and Quality of Tests

With the MLL approach it goes without saying that the quality of tests would also need to be improved. As per the MLL norms, the competencies of knowledge, understanding, application and skills are expected to be imparted and learnt in the school. Since they are expected to be learnt, they need to be evaluated also. So with MLL and CCE, the tests will have to be designed in such a way that they test the higher competencies and meta-cognitive skills like problem solving, arguments, logical thinking, application of knowledge, analysis and synthesis.

The Study of Evaluation Practices of the Primary Schools of Delhi (Agrawal and Rajput, 1996) showed that the question papers designed by various schools were not balanced with regard to weightage of objectives, different forms of questions and content areas to be covered. Taking the example of weightage to objectives, a question paper should have appropriate weightage allotted for various objectives like knowledge, understanding, application and skill. The following table shows the weightage assigned to different objectives in science by different schools.

The table indicates that the major share of weightages (from 50 per cent to 70 per cent is allotted to knowledge and minimum (from 6 to 12 per cent) to application.

TABLE 1
Weightages to Different Objectives in Science

S.No.	Schools	Knowledge	Understanding	Application	Skills
			(In percentage)		
1.	Government Schools	70	20	-	10
2.	Government Aided Schools	70	20	6	4
3.	MCD Schools	65	20	-	15
4.	NDMC Schools	50	10	-	40
5.	Kendriya Vidyalayas	55	20	-	25
6.	Private Schools	46	24	12	18
7.	Unrecognised Schools	40	47	-	13

Understanding does not receive its due weightage. A science question paper, to be balanced, needs approximately these weightages:

- Knowledge - 40%
- Understanding - 40%
- Application - 10%
- Skill-10%.

The questions which test the learning of facts, concepts and terms are considered as knowledge based questions. For answering these questions the child recognises and recalls memorised knowledge only. For example,

Q.1 Name the organs of the excretory system. Write the function of each organ.

Understanding based questions try to test whether the child can classify, compare, translate, establish relationships, interpret etc. For example:

Q.1 Write two main differences between the human body and the computer.

Q.2 Match Column A with Column B

Column A	Column B
tongue	digestion
stomach	taste
bones	breathing
lungs	skeletal system

In question, the child has to explain the differences between the human body and the computer. This involves knowledge of both on the one hand, and go beyond knowledge by comparing the two. In the

second question, the child is expected to establish relationships by matching the items in the two columns.

Application type questions try to test the child's critical thinking wherein analysing, making judgement, examining and justifying are included. For example:

Q.l Vishal and Anupam want to grow plants in their garden. Vishal's garden has loam soil but Anupam's garden has clay. Who will have a better garden and why?

To answer this question the child is expected to go through a number of mental processes. He/she has to recall the characteristics of loam soil as well as clay soil, compare the two soils and then arrive at a judgement as to which soil would be better for a garden. The child also has to present logical arguments in favour of its choice. Here the child has to use his/her knowledge and understanding for solving a problem and apply them in a situation which has not been hitherto presented in the classroom.

For skill questions, the children can be asked to draw and label the diagrams of various objects. For example:

Q1. Draw and label the diagram of a gernrinating seed.

There can also be questions where a diagram is given in the test paper and the children are asked to only label it.

The above examples show how to frame questions that test various objectives or competencies in sciences at the primary level. A better quality test will, thus, improve learning standards. It would require better teaching in the classroom as the teachers have to prepare the children to answer not only knowledge-based questions, but also questions involving higher mental processes. It will also require better efforts on the part of the students to answer the tests, and thereby improve the standards of learning.

Continuous and Comprehensive Evaluation and Areas of Testing

The other way of improving learning standards in the school and improving the quality of education is to bring more areas of learning into the fold of evaluation. In a traditional school system, only scholastic areas come within the purview of the evaluation. But CCE takes into account not only scholastic areas but also non-scholastic areas of pupil growth thereby helping in the all-round development of the child's personality. Assessment of non-scholastic areas as envisaged by Arora and Agrawal, (1993) is as follows:

WHAT CAN BE TESTED

Personal and Social Qualities

cleanliness
truthfulness
industriousness
equality
cooperation
regularity
discipline
spirit of social service
initiative
emotional stability

Interests

literary
scientific
musical
artistic
social service
sports and games

Physical Health

attitudes
teachers
studies
schoolmates
school property
school programmes

Values

socially accepted values

Co-curricular Activities

scouts/guides
dance, drama, music
drawing and painting
debates, quiz
creative writing
games and sports

adventure activities

Work Experience Activities

gardening
carpentry
electronics
chalk/candle making
sewing
art and craft
book binding

TECHNIQUES OF EVALUATION

observation
interview
medical checkup for physical health
rating scales
anecdotal records

PERIODICITY

day-to-day observation by the
teacher reporting once every term
annual medical checkup

The framework suggests that the assessment of non-scholastic areas should be indicated in letter grades in the report cards of the students.

For various social and personality traits, the schools can select any four or five traits from the given list on which they want to make an assessment. The teacher has to collect evidence for this mainly through observation and interview. Pupils should be observed in different situations, that is, within the classroom, on the play field and even outside school. Evidence can be collected by obtaining information from other teachers also.

Regarding co-curricular activities and work experience activities, it is expected that every student will participate in at least one of the given activities. If some students take part in more than one co-curricular activity, separate mention may be made about it in the 'special achievement' column of the report card.

The evaluation of non-scholastic areas not only brings to light the hidden qualities in children, but also prepares them for the future'. There are certain traits, qualities, attitudes and values which are needed by an individual for success in life. For example, qualities of regularity,

punctuality, discipline, initiative, industriousness and cooperation are valued in professional life; qualities of respect for others, truthfulness, emotional stability are required for a happy personal life. One cannot afford to neglect these qualities and it is the responsibility of the school to focus on these crucial aspects of personality development. It is, therefore, imperative to include all these areas of personality growth in the evaluation system which can be successfully done by CCE.

Conclusion

A case has been made in this paper for the at elementary stage. However, there are many 'ifs' and 'buts' in the implementation of this scheme in Indian schools. If a scheme has to be successful, the peripheral problems need to be solved. The role of administrators is crucial in this regard. It can work in our system only when it is forcefully and emphatically introduced in the school system. Clear-cut guidelines for the inclusion of CCE in the evaluation system of schools need to be prepared. For this an infrastructure needs to be built up. The working environment of the teachers needs to be improved by way of employing more hands and restricting the number of students. More recruitment of teachers is needed for better assessment of students. Ingenkamp (1989, cf:. Eckstein, Max and Noah, 1992), while studying the German system of evaluation noted that the decisive factor in the failure of the initiative regarding the introduction of new methods in German schools was that the school administration gave regulations but never provided enough additional professional staff to implement them. This problem is faced by other countries of the world too and needs to be looked into.

The headmasters/headmistresses and principals of schools who plan, organise and manage evaluation in schools need to be oriented in CCE. Only then can they carefully monitor and supervise the evaluation in schools.

The teachers need thorough training in the scheme of CCE as a whole and in the assessment of non-scholastic areas in particular. They should be trained in using simple appraisal techniques through which they can record their observations of various pupils regularly. Once this infrastructure is ready, it can be hoped that the CCE will be implemented in our schools successfully and that elementary education will move towards better standards.

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