RESEARCH ARTICLE

ROLE OF CONTINUOUS & COMPREHENSIVE EVALUATION IN THE RECONSTRUCTION OF CLASSROOM INSTRUCTION

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ANIRUDHA ROUT

ABSTRACT

The continuous & comprehensive evaluation (CCE) was introduced in schools in India in 2010. It has been in practice in the schools under all the central boards and in a majority of state board schools in India. But like a traditional test it has remained separated from the objectives and the learning instructions and so remediation, which is the main goal of CCE, has remained unachieved. This paper tries to see different scopes and possibilities of CCE being an integral part of syllabus and a very effective instrument for reconstructing the learning instruction and achieving the goals and objectives of the syllabus as well as the goals and objectives of the CCE in alignment with the Multiple Intelligence Theory and the Revised Bloom's Taxonomy.

Keywords: Assessment, Classroom Instruction, Objective, Ongoing Remediation, Multiple Intelligence, Revised Bloom's taxonomy

1. INTRODUCTION

The goal of education is to build children as capable, useful, productive and responsible members of the society by providing adequate learning experiences and opportunities to children to gain knowledge, to acquire skill and competence; to refine the attitude and to nurture all sorts of creativity in the children. India has been making experiments in the field of education since it got freedom in 1947 to draw the best out of its classrooms. After a very long debate and discussion a sea change was targeted in the assessment in school education and Continuous & Comprehensive Evaluation (CCE) was introduced in 2010. It was urged and hoped that it would shift the focus of education from *need of learning* to *love for learning*; *(NCERT, 2000)* it would reduce anxiety and stress of the learners; it would assess the learners holistically and it would enhance the level of learning performance due to timely diagnosis and appropriate remedial intervention. Though it is widely discussed and largely implemented in the whole country, it is still in the experiment stage and keeps a large scope for improvement for yielding the best output.

Syllabus has three key interactive constituents, viz. learning objectives, instructional activities and assessment, which influence each other in the learning process *(Fig-1)*. The instructional activities include the methodology of teaching, classroom interaction, techniques, strategies and the teaching-learning materials. All these three core constituents are determined by different factors like learning styles, intelligence, need of the

learners etc. The CCE tries to assess behavioural change in terms of scholastic and co-scholastic domains and also on the psychological domains like cognitive, affective and psychomotor domains. But taking two most influential foundations of education today named the (Gardener's) Multiple Intelligence theory and
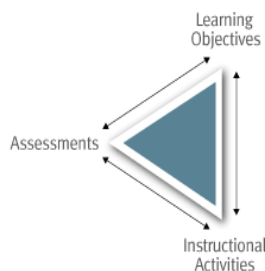

Fig- 1: Constituents of Syllabus

Revised Bloom's taxonomy into consideration would make CCE more productive, appropriate and useful for most of the learners and the teachers. So in this paper attempts are made to explore the scope for alignment learning objectives, learning activities and assessment. It also tries to explore the possibilities of applying these two theories in CCE to make it more learner-centre and learning-centre and to use CCE as an instrument or means for the reconstruction of classroom instruction and learning as a whole, not CCE as the goal of learning.

2. CCE: WHAT & WHY

The continuous & comprehensive evaluation (CCE) is the newest practice in the field of school education in India, but the concept is not at all a new in this field. A half century ago in 1968 the Education Commission of India stated that *"the internal assessment or evaluation conducted by schools is of greater significance and should be given increasing importance. It should be comprehensive, evaluating all those aspects of students' growth that are measured by the external examination and also those personality traits, interest & attitudes which cannot be assessed by it"*. In 1986 the National Policy on Education (NPE-1986) viewed that *"continuous and comprehensive Evaluation should incorporate both scholastic and non-scholastic aspects of evaluation spread over the total span of instructional time"*. The National Curriculum Framework-2005 *(NCF-2005)* also proposed examination reforms. In its position paper on Aims of Education *(NCF-2005)*, NCERT said, *"School based CCE system should be established to reduce stress on children, make evaluation comprehensive and regular, provide space for the teacher for creative teaching, provide a tool of diagnosis & remediation and produce learners with greater skills"*. *(NCERT, 2005)* The Right to Education, 2009 made the implementation of CCE mandatory from classes One to Eight. The observation of all these statements of the different commissions, committees, acts, policies etc makes it clear that in India there has been an urge for the CCE long before five decades.

Assessment, evaluation and test are the three key terms very closely related to each other. *Assessment* refers to the collection of data about learner's behavioural change, its magnitude, direction etc due to classroom instruction and *test* is one of the ways and a formal way of collecting data for assessment. There are many other formal ways and also informal ways of collecting data about the behavioural changes in the learner. *Evaluation* is a post assessment step of analysing and interpreting the data collected through assessment. Through evaluation we can reach at the causes of success or failure, attitude of the learners towards different elements of education. CCE includes both the formal and informal ways of data collection and varieties of ways of data collection for assessment. Broadly CCE has two main features, i.e. continuous and comprehensive. As defined by the CBSE the term 'continuous' in CCE means regularity and continuity in assessment and 'comprehensive' means that the assessment will assess the holistic development (both scholastic and co-scholastic) of the learner and it would include manifold tools and techniques of assessment. It also includes the term evaluation. That means CCE cannot end with assessment, it has to go further for evaluating the data collected through assessment and appropriate remedial intervention will be made for achieving the required learning outcome.
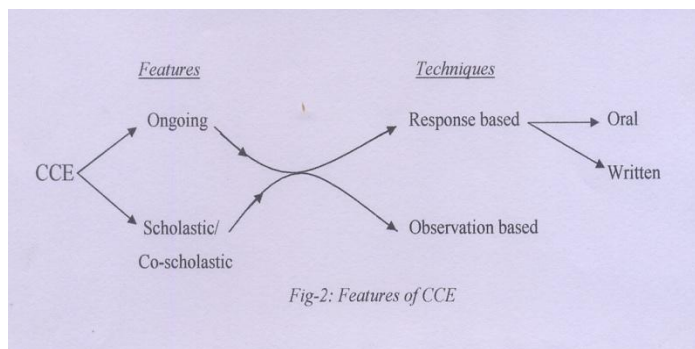
ANIRUDHA ROUT

Fig-2: Features of CCE

Assessment can be divided into different types on different dichotomies. In *Fig-3* assessment is divided into two main categories on the basis of the frequency and/or distribution of assessment conducted during a course period. The ongoing assessment is distributed all over the course period and it is more informal by nature. It looks like lacking face validity, i.e. it does not look like a test. But such judgement is dependent on the assumption of a traditional test, which was always formal. The ongoing or continuous assessment can be done in two techniques - one, response bases and two, observation based. Such ongoing assessment was earlier called formative assessment. The second one is onetime assessment, which is usually done at the end of the course and it is also known as summative assessment. The new terminology CCE becomes broader by attempting to assess both scholastic and co-scholastic domains; it is a combination of formative and summative assessment and it intends to use both response based and observation based techniques of assessment. The response based assessment includes both oral and written components in it. For both the features of CCE there can be both oral and written components under response based assessment as shown in *Fig-2*. In response based assessments the learner (assessee) is (and has to be) aware of the assessment and is prepared for it. But they are not aware that they are being assessed in case observation based assessment. The teacher observes them informally in action in different activities both inside and outside the classroom. For response based assessment tasks, activities are designed for the test purpose only, but in other cases learning activities are observed. Most importantly observation based assessment is purely informal. The students' projects, participation in different activities like debate, group discussion, presentation and informal interaction with peer or teachers are the samples of such assessment.
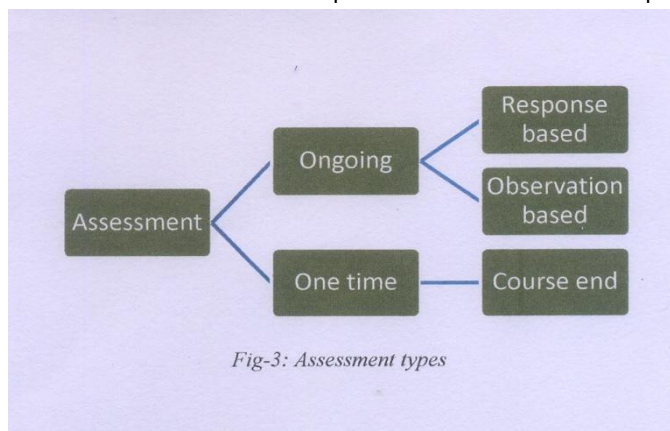

Fig-3: Assessment types

The CCE does not assess the learning only; it also simultaneously assesses teaching and provides feedback to the teacher for further improvement of teaching. While assessing learning, it answers two main questions a) what the learners learnt & b) what they should work on. While assessing teaching, it also answers two questions a) what method, strategy or technique worked well in a particular class or individual student & b) what are the things that need improvement, modification or replacement for bringing higher and better learning outcome for the learners. When we know what worked well several times, we can also make

induction about what works well for a particular group of learners or for individual learners. The area which needs improvement opens the way for action research for the teacher and brings professional development for him/her. This indirectly benefits the learners by creating opportunity for remediation and enrichment of both teaching and learning, which is the ultimate goal of CCE. *(Fig-4)*
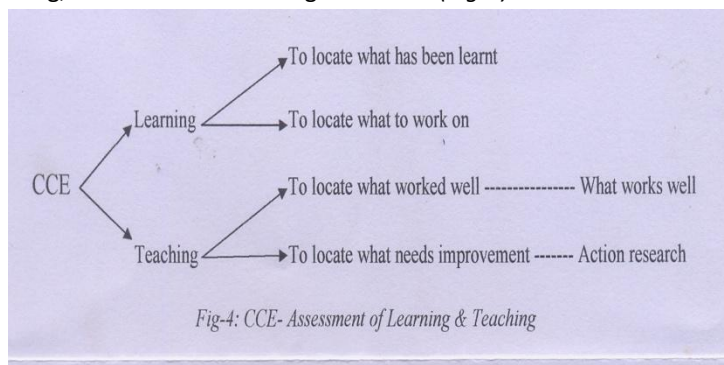

Fig-4: CCE- Assessment of Learning & Teaching

CCE can benefit both the learners and teachers. The benefits of an assessment for the learners can be

1.   Involves learners in the learning process by elimination of chance, de-emphasis of memorization
2.   Enables learners to review the materials repeatedly
3.   Provides feedback to learners about their progress, achievement, strength, weakness etc both in scholastic and co-scholastic areas
4.   Develops confidence in the learners and helps them explore their own potential
5.   Assessment comes as a part of learning without any psychological pressure from teachers and parents. Assessment becomes a process of learning, not the product.
6.   Through feedback, it gives enough opportunity to learners for reflection and introspection, ultimately giving opportunity for self improvement.
7.   Emphasizes on thought, understanding and de-memorization, which puts the learning on the higher level of cognitive domain.
8.   Through remedial teaching, the weaker, especially, get opportunity to be in the race and keep all the possibilities of achievement alive for ever.
9.   Makes learners self-directed and lifelong learners.

The benefit of an assessment for teachers can be

1.   Helps teachers understand each individual learner better
2.   Clarifies the instructional objectives and the goal
3.   Determines fit between teacher expectations and learner performance
4.   Brings in desired changes in instructional material and methodology
5.   Gives satisfaction to the teacher by giving them scope for assessing his/her learners to know them and to understand them.
6.   Every teacher assesses their learners informally all the time. CCE gives identity, recognition and respect to the work the teachers have been doing for ever.

3 CCE vs CLASSROOM INSTRUCTION

In its position paper on Aims of Education (NCF-2005), NCERT says, *"School based CCE system should be established…x……x……x…..to provide a tool of diagnosis & remediation and produce learners with greater skills".* The CBSE, New Delhi said, *"The scheme (CCE) envisages improving ongoing teaching learning processes by diagnosing the learning gaps and offering corrective and enrichment input". (CBSE, 2011)* It can be concluded from these statements that the goal of CCE was more in the reconstruction of learning instruction and less in reporting the progress to the parents or guardians or to the learners. It is essential to consider what the purpose of a particular assessment is and whether this purpose is congruent with the students they are testing and the course they are teaching. The washback effect is a big point of discussion in assessment today.

ANIRUDHA ROUT

Washback refers to the effects of testing on learners, teachers, and the syllabus as a whole. It can be positive or negative. The washback effect becomes positive when syllabus and assessment design are based on clear learning outcomes that are known to the teachers and learners. On the other hand, negative washback effect is yielded when the syllabus focuses on product, not the process. Emphasis is on quantitative output, not qualitative. So to make sure the washback effect is positive, three poles of the syllabus, i.e., learning objectives, learning/ instructional activities and assessment or evaluation must be linked. The feedback gained from the performance of the learners in the CCE should be the guiding factor of reconstructing the learning objectives, methods of imparting learning instruction, learning materials and the assessment as a whole. The alignment of the MI theory and the taxonomy would be very useful in determining all these constituents of syllabus leading to the best output from the instruction imparted. Aligning these two foundations with assessment will not only help teachers assess students more effectively, but it will also provide them with a means of evaluating their own teaching and help them produce tests that will actually motivate the learners towards learning and extract the full joy of learning.
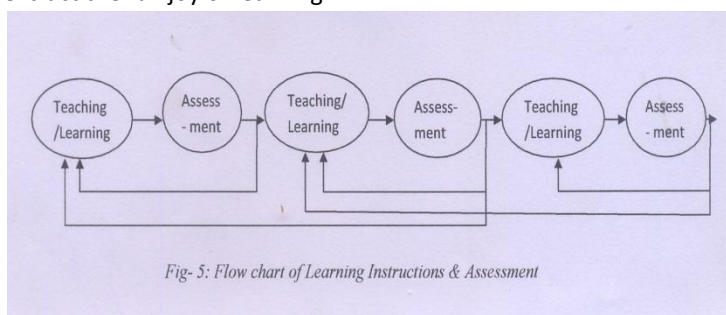

Fig- 5: Flow chart of Learning Instructions & Assessment

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4. MULTIPLE INTELLIGENCE THEORY

Till the last nineties the theory of IQ (Intelligence Quotient) was widely accepted as the sole factor of achievement of learning. But this theory was not at all enough to answer the question why two persons of the same amount of IQ do not perform equally in all the fields of life. In 1993 Howard Gardener came up with an answer to such question of psychology with the proposal of a means of mapping the broad range of abilities that human beings possess by grouping them in to seven comprehensive categories or intelligences and latter added the eighth one.

Those eight types of intelligences are:

1.   *Verbal-Linguistic*: The ability to use words/ language effectively.
2.   *Logical-Mathematical*: The ability to use numbers effectively and reason powerfully.
3.   *Visual-Spatial*   : The ability to perceive the visual-spatial world accurately.
4.   *Bodily-kinaesthetic*: The ability to use one's whole body to express ideas, feelings etc.
5.   *Musical-rhythmic & harmonic*: The ability to perceive, discriminate, transform and express musical forms
6.   *Interpersonal*: The ability to perceive and make distinctions in the moods, motivations and feelings of other people.
7.   *Intrapersonal*: The ability to perceive self and act adaptively on that perception.
8.   *Naturalist*: The ability to recognize and classify the species – flora & fauna -of an individual's environment.

Today it is considered one of the most powerful foundations of education. This theory believed that every individual has all eight types of intelligences, but the proportion makes every individual different from each other and gives expertise to a person in one or some categories. It also justified that people can develop each type of intelligence to an adequate level of competency by training and education, but not to an unlimited height. Other key points of this theory are that all these types of intelligence work together in complex ways and there are many ways to be intelligent in each category.

ANIRUDHA ROUT

Individual difference is a factor that universally influences the learning objectives and classroom instruction. These types of intelligences certainly strengthen the individual differences influencing the learning objectives and the learning activities further. Gardener observed *"I believe that we should get away altogether from tests and correlations among tests and look instead at more naturalistic sources of information about how peoples around the world develop skills important to their way of life."(Armstrong, 2009)*

5. REVISED BLOOMS TAXONOMY

Benjamin Bloom's taxonomy of learning was first published in 1956 and the layers of learning were divided into six basing upon the amount of cognitive challenge for the learner. It recognized these six as knowledge, comprehension, application, analysis, synthesis and evaluation. The goal of creating such a model was to promote higher order thinking in the learners and to motivate educators to focus on all three domains, creating a more holistic form of education.

Later it was revised almost after half century, in 2000, bringing in creativity at the top of the triangle. Though it does not include psychomotor domain, today it is the most widely-cited foundation for defining learning and promoting thinking of learners. It is a hierarchical classification of types of learning presented in a pyramid. *(Fig- 6)* It implies that the higher on the spectrum the learners go, the higher abilities of cognitive complexity and maturity they exhibit. In this taxonomy learning can further be divided into three categories: cognitive, affective and psychomotor. Cognitive refers to mental skill and process; affective refers to attitudes and feelings; psychomotor refers to physical skills.
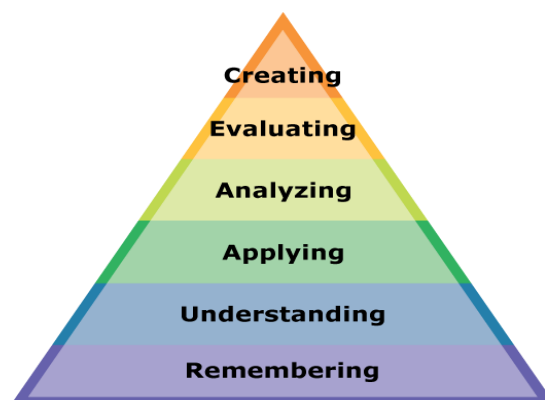

Fig- 6: Revised Bloom's Taxonomy

Initially, the taxonomy was used to decide the learning objectives, but later it has been used as a method of classifying educational objectives, educational experiences, learning processes, and evaluation questions and problems. As Noble remarks this theory also been closely linked with multiple intelligences, problem solving skills, creative and critical thinking and more recently with technology integration.

6. BENEFITS OF ALIGNMENT

The main goal of the Multiple Intelligence theory is to understand the learners with their individual ability and design the instructional activities accordingly; the main goal of the Revised Bloom's taxonomy is to decide the learning objectives for the learners and the main goal of the CCE is to assess the behavioural change and reset the objectives and redesign the learning activities. So it is quite natural that all these three need to be aligned together. The alignment of these three would benefit the teachers a lot directly and the learners both directly and indirectly.

1. Individual difference would not be an obstacle any more, it would be an opportunity. The teacher would be able to determine the objectives of a lesson having each learner's needs, abilities, attitude etc in mind. Each learner would find a place for themselves in each lesson.
2. It would build a sense of self-respect in each learner and create an intrinsic motivation in all.
3. It would help the teachers discriminate each individual learner quite technically and be able to provide them with the most appropriate learning experience.

ANIRUDHA ROUT

4.   It would function like self guidance and counselling for learners and they would be able to understand themselves. They can prepare themselves to plan their career.

5.   There would be varieties of learning activities in the class and it would nurture the intelligence of the learners.

7. CHALLENGES OF ALIGNMENT

There will be some challenges in aligning the Multiple Intelligence theory, the Revised Bloom's taxonomy with CCE. The first challenge would be the teachers' understanding of these theories and their skill of aligning them appropriately. There are not a good number of teachers in India who possess assessment literacy, nor is there any scope for them to develop the skill or acquire literacy in assessment. Taking CCE a step further with MI theory and Bloom's taxonomy would be difficult to be materialized. Second challenge is establishing relationship between the intelligences and layers of the taxonomy. For example, in the Bloom's taxonomy the first layer is remembering. Ordinarily, it does not require any type of intelligences mentioned in the MI theory. Of course if we study at micro level, we can see that remembering needs the ability of comparison, assimilation, classification etc. These activities may need Logical-Mathematical intelligence. On the other hand creating, the last layer of the taxonomy needs many types of intelligences. It may be Logical intelligence, Musical intelligence, Linguistic intelligence etc. Writing a test on the basis of all these foundations would be time consuming and a very deep expertise in the field, which could be a challenge.

8. CONCLUSION

Jacob Tharu, an educationist, once commented, "CCE is not a process or method of assessment, rather it is a policy". So the CCE scheme is expected to bring about a paradigm shift from examination practice to effective pedagogy. But in practice today the CCE has remained mostly confined to FA-1, FA-2, SA-1 and SA-2. In many cases formative assessments (FA-1 & FA-2) have been functioning like summative assessments. The formative assessments have no role in the reformation of learning instruction being imparted in the classroom. The goal of CCE was to make learning full of enjoyment, create opportunities for the learners to explore education and provide them with the best environment to help them learn. In this sense it was a policy. But it has converted to a practice, that to a mechanical practice. Geetha Durairajan remarked 'CCE is an extension of learning'. (*Durairajan, 2015*) It should never remain separated from learning objectives and learning activities. In order to make assessment effective, classroom teachers need to be assessment literate—knowledgeable about the key concepts of assessment and how they can inform the design of assessments and decisions surrounding their usage. To make CCE the most powerful instrument for providing best learning experience to the learners it has to be accommodated into the learning activities and strategies need be developed to make CCE a jackpot of joy.

References

Armstrong, Thomas. Multiple Intelligence in the Classroom. 3rd Ed. Alexandria: ASCD. P, 2009. Print

Continuous and Comprehensive Evaluation. New Delhi: CBSE. P, 2011. Print

Durairajan, Geetha. Assessing Learners. Delhi: CUP. P, 2015. Print

National Curriculum Framework for School Education – 2000, New Delhi: NCERT. P, 2000

Teachers Manual on Continuous and Comprehensive Evaluation. New Delhi: CBSE. P, 2009. Print

Wikipedia. Bloom's taxonomy. http://en.wikipedia.org/wiki/Bloom%27s_taxonomy

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Anirudha Rout, a Master in Sociolinguistics, has worked as a Teacher Educator for English Language Teaching Institute, Odisha, Bhubaneswar for about 15 years. He has been awarded Fulbright fellowship by Dept. of State, US for a professional Development program at California State University, Chico. In ELT his fields of interest are Teaching English in Multilingual Context, Language Assessment, Teaching English to Young Learners and Technology for ESL Classroom. At present he is engaged with some research projects on TEYL, Applied Linguistics and Odia linguistics. He has published one travelogue about US and translated a travelogue from Bangla language to Odia.