

Formative Assessment as a Tool of Evaluation in Learning: An Exploratory Study

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Abstract Formative assessment is a systematic, continuous process used during instructional process by the teachers. It evaluates learning while it is developing, is indivisible with instruction and integrated with teaching and learning and actively involves both teacher and students and provides a feedback loop to adjust ongoing instruction and close gaps in learning. Classroom teachers use formative assessment because it has been shown to improve learning outcomes for all students, especially those struggling with learning, students with disabilities. Teacher development is a process of learning which involves professional, personal and social development. All three aspects are involved in teacher development for formative assessment. This study aims at assessing status of formative assessment being practiced in the schools and the need to train teachers with adequate skills and knowledge to carry out formative assessment. The study also tries to highlight the lacunae in teacher training programme wherein the trainees are not equipped adequately to understand the concept of formative assessment and carry out the assessment in workplace.

Keywords: Formative Assessment, Tool of Evaluation in Learning, Exploratory Study

FORMATIVE ASSESSMENT: Meaning

Formative assessment (Black and William, 1998; Clark, 2011; Heritage, 2010):

- is a systematic, continuous process used during instruction by teachers;
- evaluates learning while it is developing;
- is indivisible with instruction and integrated with teaching and learning;
- actively involves both teacher and student;
- provides a feedback loop to adjust ongoing instruction and close gaps in learning;
- involves self- and peer-assessment; and
- informs and supports instruction while learning is taking place.

Conversely, formative assessment is not a single event or measurement instrument but an ongoing, planned practice that allows teachers to evaluate learning after teaching. It also allows teachers to predict and make standardized judgments about student performance toward state content standards (Clark, 2011; Heritage, 2010).

FORMATIVE ASSESSMENT: Purpose

Herman, Osmundson, and Dietel (2010) emphasized that formative assessment information is mainly for teacher and classroom use, but can serve different purposes. Formative assessment is part of the family of assessments, and therefore, its purposes can sometimes overlap with interim/benchmark and summative assessments. The purposes of formative assessment are to help teachers target instruction that meets specific learning goals, support student learning, check for progress and detect learning gains, identify strengths and weaknesses, check for misconceptions following instruction, differentiate

instruction, evaluate the effectiveness of instructional methods or programs, and transform curriculums (Gallagher & Worth, 2008).

Classroom teachers use formative assessment because it has been shown to improve learning outcomes for all students, especially those struggling with learning, students with disabilities, and English learners; promote effective instructional practices; and increase coherence when aligned with or linked to a state's comprehensive assessment system (Gallagher & Worth, 2008; Black & William, 1998).

What do the research findings indicate about formative assessment?

Overarching within research findings are policy implications that should be considered by entities employing formative assessment practices within their systems and schools for students and teachers. The National Council of Teachers of English (NCTE) also alludes to policy implications for formative assessment in its 2010 publication, deeming that high-quality formative assessment policy should include recognizing the need for varying assessment according to the difficulty of "the task and the varying abilities of students, linking assessment to instruction so that both teachers and students benefit, and adjusting assessment so that students move beyond just completing the work to actually excelling at it" (p. 4).

An additional noteworthy set of formative assessment policy principles, according to the Centre for Educational Research and Innovation (CERI, n.d., p. 11), are to:

1. Keep the focus on teaching and learning.

2. Align summative and formative assessment approaches.
3. Ensure that data gathered at classroom, school, and system levels are linked and are used formatively.
4. Invest in training and support for formative assessment.
5. Encourage innovation.
6. Build stronger bridges between research, policy, and practice.

Extensive research findings are prevalent regarding formative assessment and its connectedness with improving student learning and outcomes. Pinchok and Brandt (2009) referenced Benjamin Bloom, one of the earliest researchers of formative assessment, and his groundbreaking work on the

need to address the variance in student achievement by differentiating instruction and assessment of students. Bloom's "mastery learning" work incorporated feedback processes after students took brief unit assessments to guide their individual and group learning needs (Pinchok & Brandt, 2009, p. 8). After these initial assessments, students received appropriate and differentiated follow-up instruction or activities, followed again by more formative assessment, until the class completed a unit. Research regarding such mastery learning showed evidence of academic gains and improved student learning attributes, such as improved confidence and attitudes towards learning. Process that is composed of four essential elements:

Feedback flows between the teacher and students. Feedback provides critical information that the teacher needs to determine the current status of a student's learning and informs the next steps in the learning process. Clear and detailed feedback is provided to the student for improving learning. Feedback should be designed to close the instructional gap.

Identifying the gap involves understanding the difference between what students know and what they need to know. Once a teacher identifies this gap, the necessary instructional support can be provided to help the student progress toward the learning goal.

Students must be actively involved in their own learning and the assessments in which they are engaged. This happens best through collaboration between the teacher and students to develop a shared knowledge about their current learning status and what they need to do to progress. Doing so builds skills within students that are needed for self-monitoring their learning and determining when they need assistance.

Learning progressions break down a larger learning goal into smaller parts. This is necessary for helping teachers locate students' current learning status in relation to a continuous set of skills needed to master ultimate learning standards. Once the points at which students are on the learning progression continuum have been identified, the teacher can work with the students to set short-term goals that will help them progress to the ultimate position along the continuum.

Figure A: Process of Formative assessment that is composed of four essential elements as illustrated by Pinchok & Brandt, 2009.

Along with the principles of formative assessment, decision makers should consider the various forms of formative assessment and recommendations regarding their use. For instance, NCTE (2010) deemed that high-quality formative assessment practice takes many forms, but it always does the following (p. 2):

- emphasizes the quality rather than the quantity of student work;
- values giving advice and guidance over giving grades;
- avoids comparing students in favor of enabling individual students to assess their own learning;
- fosters dialogues that explore understandings rather than lectures that present information;

- encourages multiple iterations of an assessment cycle, each focused on a few issues; and
- provides feedback that engenders motivation and leads to improvement.

HOW DOES FORMATIVE ASSESSMENT DIFFER FROM OTHER TYPES OF ASSESSMENTS

There is no one size fits all when it comes to formative assessment. Heritage (2011) asserts that formative assessments come in different forms and formats, with no single method for collecting data. The type of formative assessment used by a teacher should be selected based on the learning goals and indicators, as long as it is planned, systematic, and yields actionable information that can be used by the teacher and student to improve learning. Hence, formative assessment can include structured, formal observations; informal observations; classroom discussions; analysis of student work samples; strategies for monitoring progress; strategies for checking student understandings or skills; curriculum-based measurement (frequent probes in academic areas); self-assessment measures; and peer-assessment activities .

In a study by Bell' and Cowie the teachers highlighted the need for them to connect their own experience and practices to the notion of formative

assessment and to further develop their own skill in formatively assessing students. They suggested that planned formative assessment be first addressed in the workshops through the sharing and trialing of classroom ideas for formative assessment and the sharing of concerns and problems with doing formative assessment in the classroom. It was recommended that formative assessment through interaction be discussed second and that this aspect of their practice be clarified by receiving feedback on their classroom practices from an observer. The teachers emphasized that their sustained and responsive use of formative assessment required more than learning about a range of new and different assessment tasks or strategies. It also required a change in how they viewed and used their interactions with students.

TEACHER DEVELOPMENT AND FORMATIVE ASSESSMENT

Teacher development is a process of learning which involves professional, personal and social development (Bell & Gilbert, 1996). All three aspects are involved in teacher development for formative assessment. Professional development as a part of teacher development involves not only the use of different assessment activities by both teachers and students but also the development of the beliefs and conceptions underlying these activities.

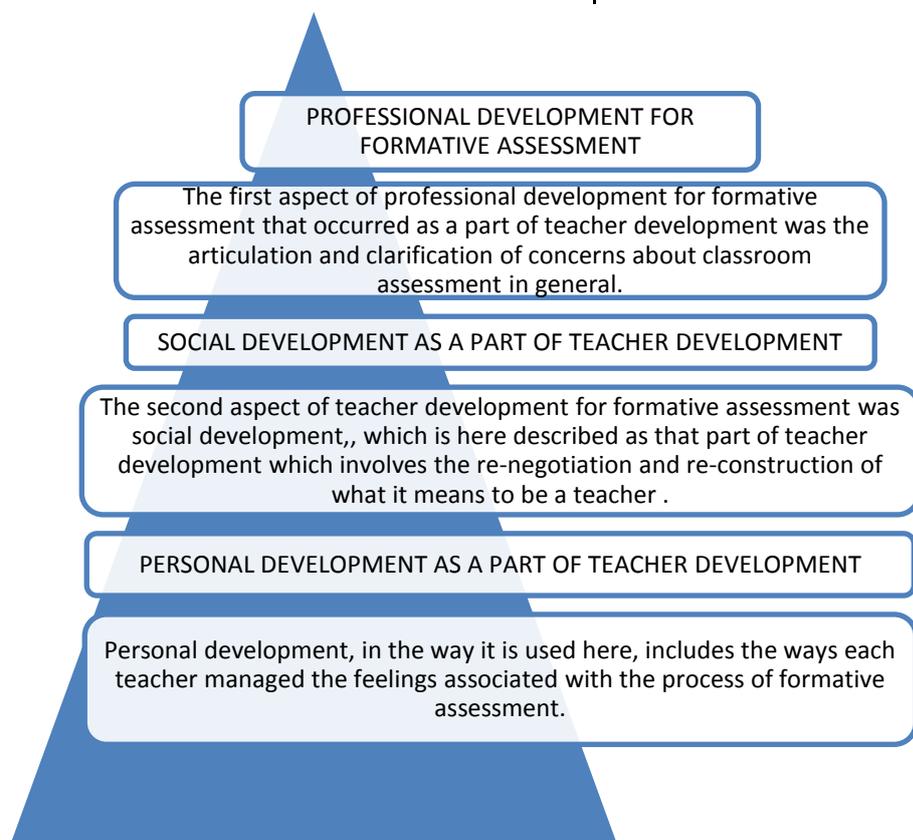


Figure B: adapted based on the aspects presented by Bell & Gilbert, 1996

RATIONALE OF THE STUDY

The main purpose of assessment is to enhance the effectiveness of learning process and hence it has to be integrated appropriately with every stage of learning. The teacher has to understand at what stage of learning each learner is at a particular point, what are the changes that are to be made to the teaching strategies to make every child learn effectively and what further help can be provided. From the above, it may be apparent that assessment, which is in essence formative, has to be integrated with the teaching-learning process. Formative assessment by definition is the process of finding out the felicity with which a learner is able to 'form' concepts and skills and hence it is process rather than product oriented. This study aims at assessing status of formative assessment being practiced in the schools and the need to train teachers with adequate skills and knowledge to carry out formative assessment. The study also tries to highlight the lacunae in teacher training programme wherein the trainees are not equipped adequately to understand the concept of formative assessment and carry out the assessment in workplace.

Objectives of the study

The following are the objectives of the study

1. To assess formative assessment as a tool of evaluation.
2. To study the usage of formative assessment in different ways as a tool of evaluation.
3. To gauge the teacher training programme to orient the teachers about formative assessment as a tool of evaluation at pre-service level.
4. To gauge the teacher training programme to orient the teachers about formative assessment as a tool of evaluation at in-service level.

OPERATIONAL DEFINITION OF KEY TERMS:

Formative assessment is a tool used by the teacher to continuously monitor student progress in a non-threatening, supportive environment. It involves regular descriptive feedback, a chance for the students to reflect on their performance, take advice and improve upon it.

SAMPLE

A sample is the part of the universe or population under investigation sample units are studied in the context of the problem. In this case, purposive sampling method was carried out.

Sample taken for studying the problem:

1. Teachers of various Government and Private Schools of Delhi having an experience of at least more than three years of teaching .

2. B.Ed. trainees of previous batches who are currently employed in various

Schools of Delhi, having an experience of at least six months.

Sample size: 20+20(20 teachers working in various government and private schools +20 students of B.Ed. who have passed out and employed in various schools of Delhi)

TOOL S AND TECHN IQUE S OF DATA COLLECTION

- ✓ A questionnaire was administered on 20 teachers working in government and private schools wherein the teachers filled their responses in yes or no.
- ✓ A questionnaire was mailed 20 students who had passed out and employed in various schools.

ANALYSIS OF THE DATA

Data has been analyzed quantitatively to attain the objectives of the study. The statistical technique employed is percentage.

1. Analysis of the Questionnaire administered on the teachers:

The various figures show the responses of teachers to the questions

Question 1: Formative assessment can be a fast and effective way to learn about the student's strengths and weaknesses.

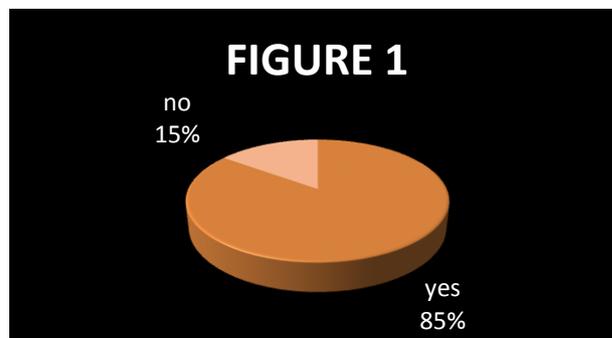


Figure shows that 18 out of 20 teachers agreed that a teacher can gauge the strengths and weaknesses in teaching –learning process.

Question 2: Formative assessment is an important tool for teachers to collect both quantitative and qualitative data.

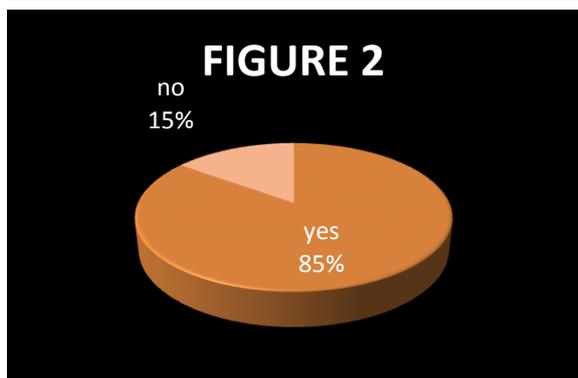
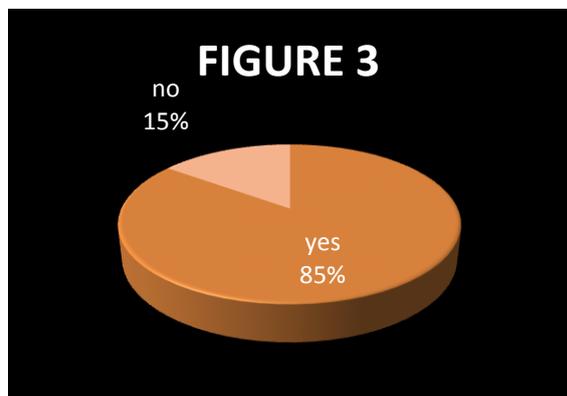


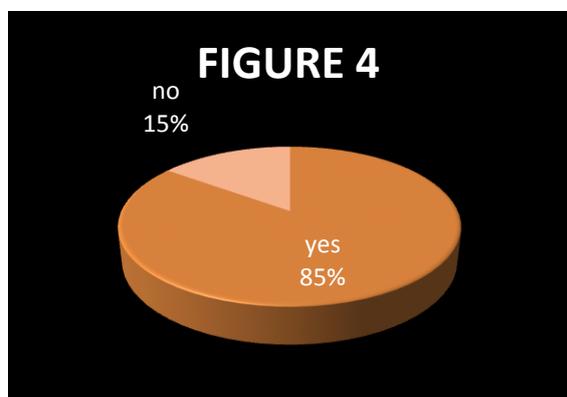
Figure reveals that if a teacher is keen observer and a researcher she/he can collect information regarding the problem in teaching learning in a particular area and extent of learning of one particular child or the whole class.

Question 3: Teachers are adequately trained in your institution about the nature of formative assessment.



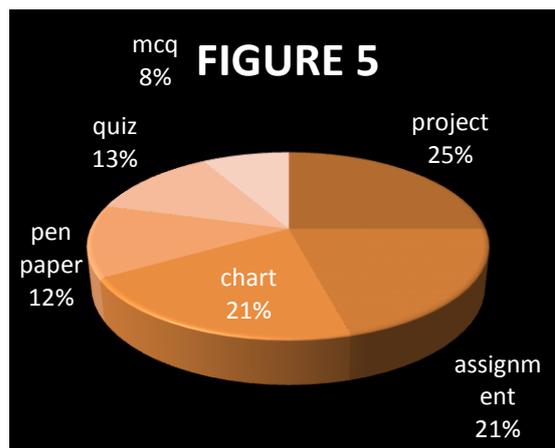
The graph shows that majority of the teachers agreed that they were aware of the nature of formative assessment, however further probing revealed that the teachers had not attended any in-service training regarding the same.

Question 4: Teachers are aware of different assessment tools prescribed in the CBSE manual.



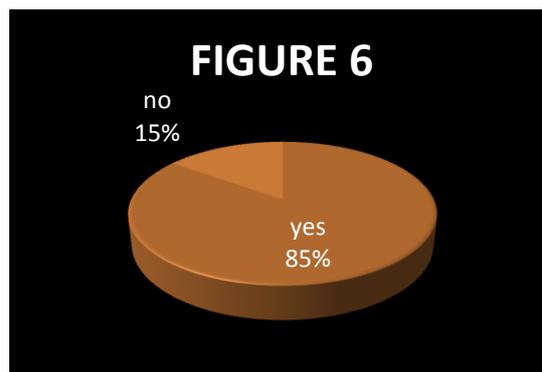
The figure shows that 95% of the teachers followed the CBSE manual to plan activities for formative assessment. The teachers of government school had planned activities and they had to only administer them.

Question 5: What formative assessment tools do you currently use in your classroom?



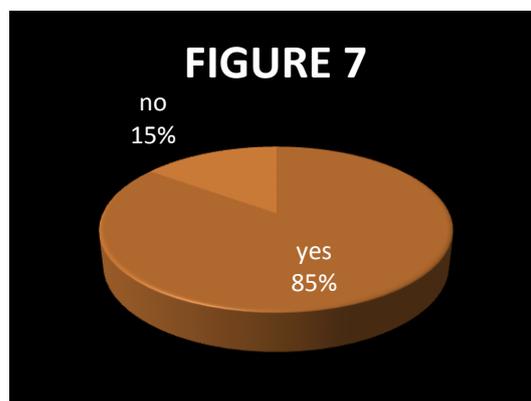
The graph shows that teachers use variety of tools in formative assessment.

Question 6: Formative assessment helps find out if the teacher is meeting the needs of all students.



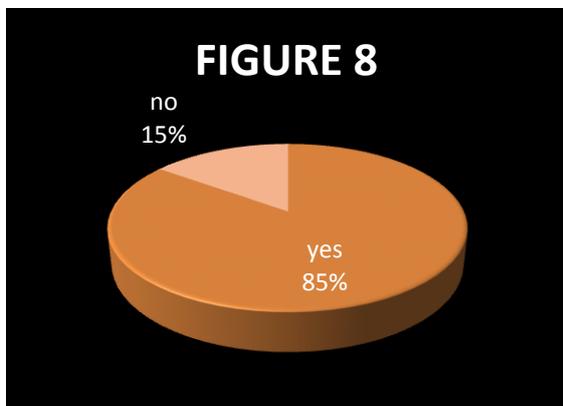
The figure shows that though 80% of the teachers said that teachers meet the needs of the students but 20% believed that they do not meet the needs of all the students.

Question 7: Formative assessment helps the teacher provide students with specific feedback.



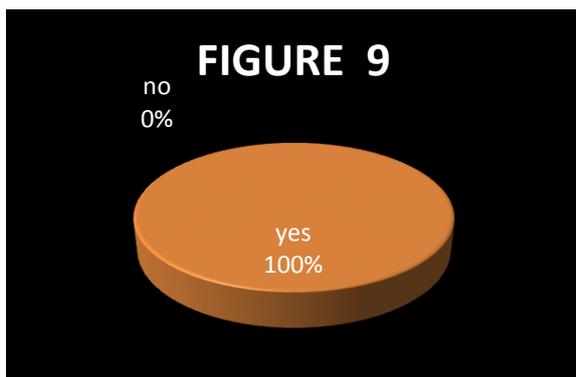
The graph shows that 85% of the teachers believe that they provide specific feedback regarding their performances while 15% think that it is not true.

Question 8: As a teacher have you arranged for any remedial measures for your students depending upon the formative assessment data.



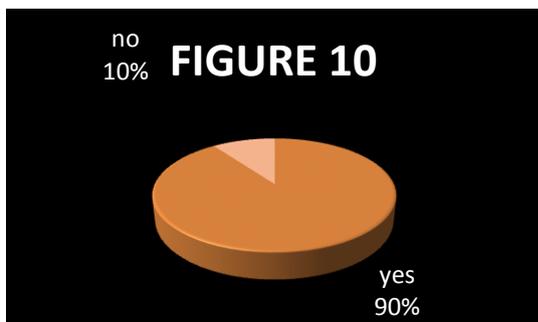
The graph reveals that 85% of the teachers arrange for remedial measures for the betterment of their students while 15% did not arrange for the remedial measures.

Question 9: As a teacher have you figured out next instructional step based on student assessment data.



The figure shows that all the teachers planned their next assessment based on the students' assessment data.

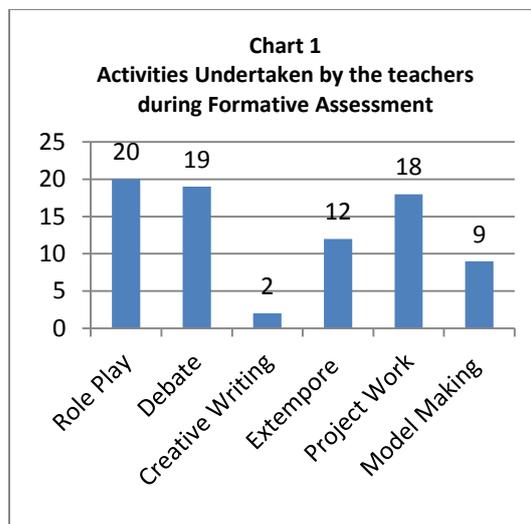
Question 10: As a teacher do you feel the need of more training in formative assessment and would participate in a workshop or training if it was available.



The graph shows that majority of the teachers opt for additional training or workshop for formative assessment.

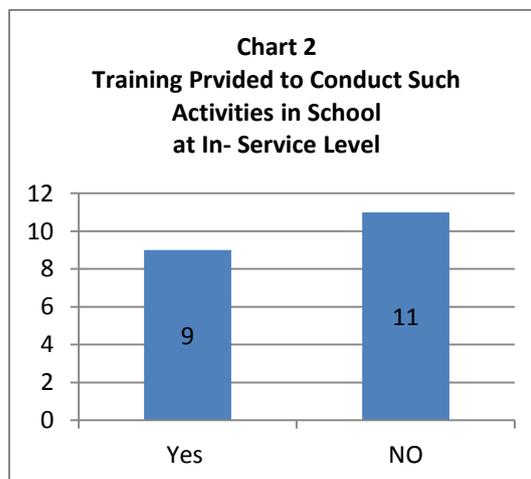
2. Analysis of the questionnaire administered on the passed out students:

Que. 1 Name any four activities under formative assessment.



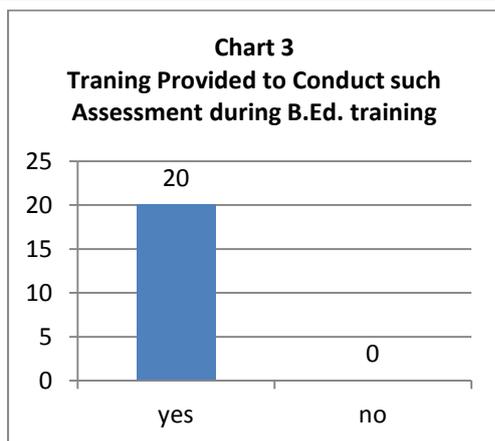
The chart indicates that among the various activities that are used under formative assessment, prime importance is given to Role play and Debate and other activities that are used are Project Working, Extempore which are equally important.

Que.2 Were you trained to conduct such activities in School?



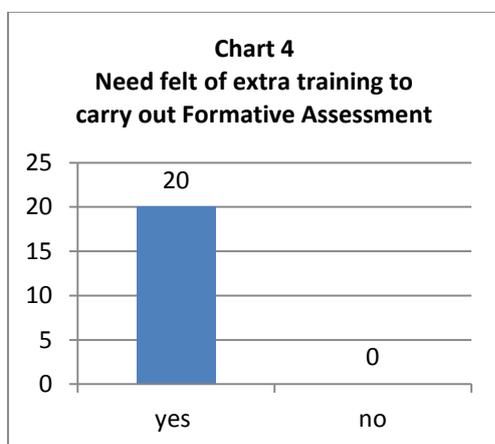
The chart indicates that among the sample, more than 50% teachers are not provided training to conduct such activities in school at their in service level.

Que. 3 Did your B.Ed. training equip you to conduct these assessments?



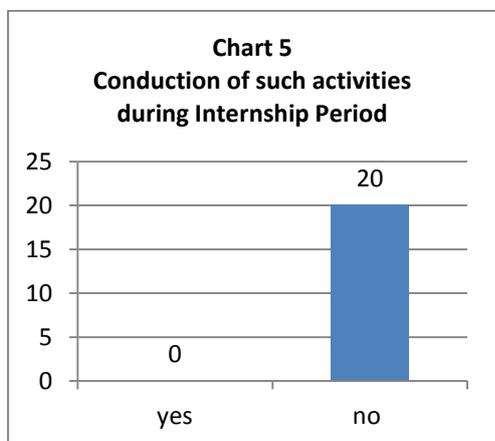
The chart indicates that among the sample, all teachers agreed that they have been provided training to conduct such Assessment during B.Ed. training.

Que. 4 Do you think you need extra training to be proficient in carrying out formative assessment?



The chart indicates that all the teachers feel the need of extra training to be proficient enough in carrying out such formative assessment.

Que. 5 Were you given time to conduct such activities during your internship programme to be able to successfully carry out during your professional period?



The chart indicates that there is a dire need of giving a scope to teachers during their internship level to conduct such activities to be able to successfully carry out during your professional period.

CONCLUSION

Formative Assessment is an indispensable tool of evaluation. It does not only help in keeping a track on the teaching learning process but also helps in giving a better direction to the educational process. It is thereby an intermediate to attain the educational goals and realize the aims of education. It provides a feedback to both the learner and the teacher. And as a result can help the learner to get feedback of learning and improve incessantly. It also helps the teacher to device appropriate teaching strategy to serve the needs of the learners and continuously improve the teaching learning process in order to meet the demands of the present society.

The study indicates that in order to successfully implement formative assessment as a tool of evaluation, the following steps must be taken into consideration:

At Pre- Service Level

1. Adequate training should be provided to the trainee teachers to orient about such activities.
2. Adequate time should be provided to the trainee teachers during the internship period to conduct such activities in order to help them during their professional set up in future.
3. Training teachers should be oriented towards various strategies to carry out such activities.
4. Training teachers should be oriented about various new and innovative activities that can be carried out as a part of formative assessment.

At In- Service Level

1. Provision of refresher courses and in service training programme should be there in order to help the teachers to remain up to dated.
2. Variety should be there in order to carry out formative assessment.
3. Remedial measures must be provided in order to do away the loopholes during formative assessment.

There is no denying of the fact that Formative Assessment is an important tool of evaluation. The only need is to carry out this in an innovative way in order to realize the aims of learner centered education.

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