

## Formative and Summative Assessments

**Anju Bala**

Ph.D. Research Scholar Department of Education Himachal Pradesh University Shimla,  
Himachal Pradesh, India

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### Abstract

Educational assessment is the systematic process of documenting and using empirical data on the knowledge, skill, attitudes, and beliefs to refine programs and improve student learning. Assessment data can be obtained from directly examining student work to assess the achievement of learning outcomes or can be based on data from which one can make inferences about learning. Assessment is often used interchangeably with test, but not limited to tests. Assessment can focus on the individual learner, the learning community, a course, an academic program, the institution, or the educational system as a whole. Assessment is the measurement of what students are learning. Student achievement is defined as how well they've mastered certain target skills. Assessments provide educators with both objective and subjective data in order to ascertain student progress and skill mastery. Effective assessment provides students with a sense of what they know and don't know about a subject. If done well, the feedback provided to students will indicate to them how to improve their performance. Assessments must clearly match the content, the nature of thinking, and the skills taught in a class. Through feedback from instructors, students become aware of their strengths and challenges with respect to course learning outcomes. Assessment done well should not be a surprise to students. The primary purpose of assessment is to improve students' learning and teachers' teaching as both respond to the information it provides. Assessment for learning is an ongoing process that arises out of the interaction between teaching and learning. Evidences of student learning are measured on tests, papers, projects, and presentations, etc. Summative and formative assessments are two ways to evaluate a student's learning. Grades often fail to tell us clearly about "large learning" such as critical thinking skills, problem solving abilities, communication skills, social skills, and emotional management skills. Done the right way, assessments are a great way for educators to better understand their students' progress, because helping students learn is the primary objective of education.

**KEYWORDS-** Assessment, Formative, Summative

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### Types of Assessment

- **Diagnostic:** Given at the beginning of the school year, or the beginning of a new unit of study, a diagnostic test attempts to quantify what students already know about a topic.
- **Formative:** Given throughout the learning process, formative assessments seek to determine how students are progressing through a certain learning goal.
- **Summative:** Given at the end of the year or unit, summative assessments assess a student's mastery of a topic after instruction.

- **Norm-referenced tests:** These tests measure students against a national “norm” or average in order to rank students against each other. The SAT, CAT, and other major state standardized tests are norm-referenced.
- **Criterion-referenced tests:** These tests measure student performance against a standard or specific goal. Unit and chapter tests are usually criterion-referenced, as are the newly developed SBAC and PARCC Common Core tests.

### Question Types

- **Multiple Choice:** These questions provide students with a stem and a set of discrete possible answers from which students must choose the correct one. The possible answers generally include one correct answer and three to four distractors, designed to mimic the common misconceptions students have about the concept being tested.
- **Constructed response:** These questions require a written response. Usually they include a one-part question, and students respond by writing a paragraph or short essay, or building and solving an equation.
- **Extended constructed response:** These questions, like the constructed response, require a written answer. The reason they are “extended” is that they are multi-part questions, requiring students to answer the first part of the question before answering subsequent parts, which may require reflection on or further explanation of an answer given in a previous section.
- **Technology enhanced:** These items are given in computer delivered assessments. Technology enhanced items require students to interact with the material in various ways—through actions like dragging and dropping information, highlighting relevant text, and completing sentences or equations from items in a drop-down menu.
- **Performance task:** These items require students to use multiple stimuli to solve a problem or create something new. Performance tasks are usually scored with a rubric, which includes the criteria students must keep in mind while developing their solution. It may include reading multiple essays and synthesizing the ideas into their own writing. In math, these tasks may ask students to analyze charts and graphs and write out a plan for using the data in a real world application.
- **Informal:** This category covers a wide range of tasks, from checklists to observations. Informal assessment doesn’t lead to a score, but it does help teachers gather important insights about students.

### Delivery Methods

- **Pencil and paper:** There’s no need for a lengthy description with this delivery method. Examples include tests, quizzes, mind maps, and essays.
- **Online:** Modern assessments are moving online, as can be seen with those developed for the Common Core State Standards, which are given strictly in that format. Online tests mean each student needs access to a device on which to take the assessment. Students also need strong digital literacy skills in order to successfully navigate the demands of online testing.

- **Adaptive:** These online tests adapt as the user progresses through the questions. As a student gets answers correct, the program adjusts and gives the student increasingly more difficult questions. The converse is true, and the test will adapt to asking simpler questions to a student who is struggling with grade level topics. Adaptive testing gives educators a much broader picture of students' ability levels. Rather than just labeling students on, above, or below grade level, a student's actual level of knowledge can be assessed.

## Scoring

Assessments can be scored by hand, by computer, or by combination of both. Many online assessment programs and apps can score quantitative items, like multiple choice, drag and drops, and fill-in-the-blanks, and other item types that have specific correct answers. Items like performance assessments and essays are still left for teachers or human-scorers to assess.

Reliability and validity of testing are two things that are considered when assessments are adopted. Reliability refers to the likeliness of the scores and outcomes to be repeated in several different populations of test takers. Validity refers to how the assessment outcomes are interpreted and applied. The goal of standardized testing is to be fair and impartial; however, whether or not this goal is actually realized in today's assessments is controversial, as it's nearly impossible for one test to be fair to all student populations.

## FORMATIVE ASSESSMENT

Formative assessment monitors student performance and progress during learning. This type of learning is often low-stakes and ungraded. It is used as a way for the teacher to see if the student is making progress toward the end goal of mastering the skill. Teachers use formative assessment techniques to monitor student learning so that they can provide feedback or help along the way. Both diagnostic and summative assessments can be used as formative assessment.

1. Formative evaluation is used during the teaching learning process to monitor the learning process.
2. Formative evaluation is developmental in nature. The aim of this evaluation is to improve student's learning and teacher's teaching.
3. Generally teacher made tests are used for this purpose.
4. The test items are prepared for limited content area.
5. It helps to know to what extent the instructional objectives has been achieved.
6. It provides feed-back to the teacher to modify the methods and to prescribe remedial works.

7. Only few skills can be tested in this evaluation.
8. It is a continuous and regular process.
9. It considers evaluation as a process.
10. It answers to the question, whether the progress of the pupils in a unit is successful?

### **SUMMATIVE ASSESSMENT**

Summative assessments are design to measure student achievement at end of instruction. These types of assessments evaluate student learning at the end of a project, unit, course, or school year. Summative assessment scores are usually recorded and factored into student academic record in the form of letter grades and scores.

1. Summative evaluation is used after the course completion to assign the grades.
2. Summative evaluation is terminal in nature. Its purpose is to evaluate student's achievement.
3. Generally standardized tests are used for the purpose.
4. The tests items are prepared from the whole content area.
5. It helps to judge the appropriateness of the instructional objectives.
6. It helps the teacher to know the effectiveness of the instructional procedure.
7. Large number of skills can be tested in this evaluation.
8. It is not regular and continuous process.
9. It considers evaluation as a product.
10. It answers to the question, the degree to which the students have mastered the course content.

### **DIFFERENCE BETWEEN FORMATIVE AND SUMMATIVE ASSESSMENT**

<b>Sr.No.</b>	<b>Formative assessment</b>	<b>Summative assessment</b>
<b>1.</b>	Formative assessment's goal is to monitor students learning to provide ongoing feedback that can be used by students to improve their teaching and by students to improve their learning.	Summative assessment's goal is to evaluate students learning at the end of an instructional unit by comparing it against some standards.
<b>2.</b>	This assessment takes place during the	This assessment takes place after the

	learning process.	completion of course.
3.	This assessment monitors the learning process.	This assessment assigns the grades.
4.	The purpose of formative assessment is to improve student's learning.	The purpose of summative assessment is to evaluate student's achievements.
5.	It includes little content area.	It includes whole chapter or content area.

### Purposes of assessment

- The primary purpose of assessment is to improve students' learning and teachers' teaching as both respond to the information it provides. Assessment for learning is an ongoing process that arises out of the interaction between teaching and learning.
- Assessment can do more than simply diagnose and identify students' learning needs; it can be used to assist improvements across the education system in a cycle of continuous improvement:
  - Students and teachers can use the information gained from assessment to determine their next teaching and learning steps.
  - Parents can be kept informed of next plans for teaching and learning and the progress being made, so they can play an active role in their children's learning.
  - School leaders can use the information for school-wide planning, to support their teachers and determine professional development needs.
  - Communities and Boards of Trustees can use assessment information to assist their governance role and their decisions about staffing and resourcing.
  - The Education Review Office can use assessment information to inform their advice for school improvement.
  - The Ministry of Education can use assessment information to undertake policy review and development at a national level, so that government funding and policy intervention is targeted appropriately to support improved student outcomes.
- Assessment drives instructions.
- Assessment drives learning.

### Formative and Summative Assessment for the students of Himachal Pradesh

To better the learning standards among elementary school children, Himachal Pradesh government has adopted a modified Continuous and Comprehensive Evaluation (CCE) system under which the students will be graded on the basis of formative and summative assessments.

- Students with marks between **80 to 100** percent would be given "**A Grade**" (**Outstanding**),
- Students with **65 to 79** percent marks would fall under "**B Grade**" (**Very good**),
- Students with **50 to 64** percent would be given "**C Grade**" (**Good**),

- Students with **35 to 49** percent would be placed under "**D Grade**" (**Average**),
- Students getting **less than 35** per cent marks would be termed as "**E Grade**" (**Below average**).

Class tests spanning 60 to 75 minutes would be conducted by the teachers and students' marks would be recorded under formative assessment (FA), while the evidences of progress, assignments and other activities would be maintained as part of student portfolio. Every student would have to do at least three assignments per subject in a term and the syllabus would be divided in two terms, the website said. To evaluate the "scholastic part", the students would be judged on the basis of extraordinary achievements, interpersonal relationships, moral values, respect for national values, social adjustment, cleanliness and cultural aspects.

Under the summative assessment (SA), the focus would be on creative writing, picture reading, reasoning, one word answers, fill in the blanks, jumbled sentences and diagrammatic representation.

1. Evaluation of students shall be done in two terms. Terms I (Winter closing schools-February to June and Summer Closing schools-April to September) and Term II (Winter closing schools- July to December and October to March) with effect from 2016-17 session onwards. Evaluation would be continuous but at a stipulated time-period.
2. Under oral evaluation, teacher would give marks to the student on their reading, comprehensions, discussions and answering abilities and record in the register.
3. Every student would be required to do at least three assignments per subject in a Term as per their choice and ability on the basis of the content taught to them during the term.
4. The syllabus would be divided in two terms. Some important segment of syllabus which has been done in first term and has link in next class would be again revised so that continuum is not broken.
5. In Summative Assessment (SA), in order to avoid rote memory. Some problem solving questions, creative writing, picture reading, choosing the odd one out, reasoning, one word answers, fill in the blanks. MCQ, Jumbled sentences, comprehension, diagrammatic representation, short answers and detailed answer etc. would also be included.
6. The School Incharge, Principal, Headmaster/CHT as the case may be shall ensure that all teachers under their charge maintain class and subject wise proper record of student's achievement in self made registers
7. Learning gaps found in the students would be addressed by the teachers by taking proper remedial measures as per the specific needs.

## CONCLUSION

Assessment has the power to transform both learning and teaching because it is so inherently linked to motivation and learning. In all education systems, it is assessment that dominates curriculum. assessment for learning is used for continuing planning for the purposes of greater learning achievement. In an assessment for learning environment, rather than something that happens at the end of the learning, assessment is used to

support and inform learning, build self-confidence, and capacity for success. Pupils learning self-assessment techniques to discover areas they need to improve are very positive in concern with assessment for learning. Recognition that both motivation and self-esteem, crucial for effective learning and progress, can be increased by effective assessment techniques is well part of formative assessment. Assessment is not something separate, it is a tool by which education may be evaluated; it acts upon the educational system so as to shape it in accordance with what the assessment demands. Hence it is important for teachers to design proper assessment for improvement. Effective teaching, learning and assessment centre on the quality of interactions between and among teachers and learners.

## REFERENCES

- Best, J.W. (1983). *Research in Education*. Prentice Hall of India, Private India, New Delhi, 39-40.
- Koul, Lokesh (2009). *Methodology of Educational Research*. Vikas Publishing House PVT LTD. New Delhi.
- Kumar R. (2005). *Research Methodology*. Dorling Kindersley (India) Pvt. Ltd., 47-49.
- <https://www.bookwidgets.com/blog/2017/04/the-differences-between-formative-and-summative-assessment-infographic>
- <https://www.cmu.edu/teaching/assessment/basics/formative-summative.html>
- [https://en.wikipedia.org/wiki/Educational\\_assessment](https://en.wikipedia.org/wiki/Educational_assessment)
- <http://www.edudemic.com/summative-and-formative-assessments/>
- [www.yourarticlelibrary.com/education/evaluation/difference-between-formative-and-summative-evaluation/64717](http://www.yourarticlelibrary.com/education/evaluation/difference-between-formative-and-summative-evaluation/64717)
- [www.himachal.nic.in/eledu](http://www.himachal.nic.in/eledu)