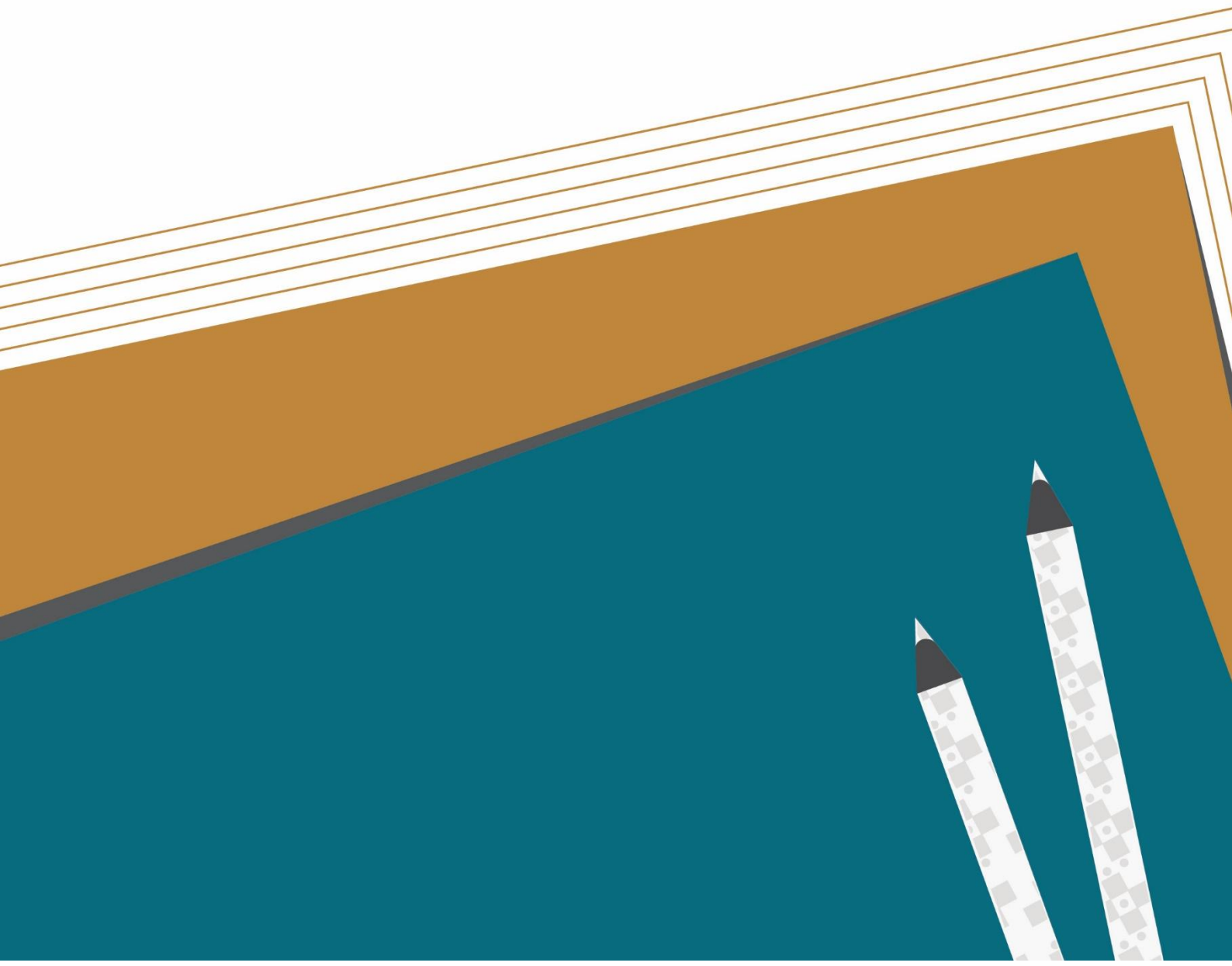


Basic Concepts in Assessment



Basic Concepts in Assessmentⁱ

Assessments play an important role in the teaching learning process. Clear understanding and usage of assessment terms and terminologies facilitate effective communication among teachers, and stakeholders involved in the assessment process. It ensures that everyone is on the same page, avoids confusion, and promotes accurate interpretation and exchange of assessment-related information. This paper intends to provide guidance in developing an understanding on the key concepts and terminologies in assessment.

Types of Assessment and its Purpose

Learning outcomes are defined as assessment standards indicating the expected levels of learning that children should achieve for that class. Formative and summative assessment are designed to assess the attainment of the defined learning outcomes.

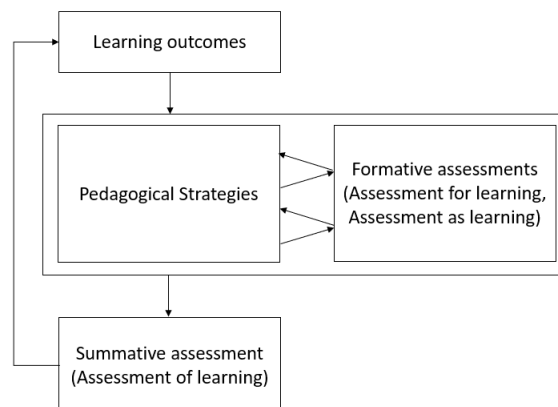


Figure 1: Teaching learning cycle

- **Formative** uses of assessment help teachers to monitor student learning while it is still in progress by diagnosing individual students learning, providing specific feedback, making appropriate instructional changes and by promoting students' self- assessment. This kind of assessment is integrated tightly into the teaching learning process and can be conducted by both teachers (assessment for learning) as well as students (assessment as learning) [1].
 - **Assessment 'for' learning** helps in understanding what students know and can do already and use these insights to design the next steps in instruction. Teachers use variety of assessment methods including observation, worksheets, questioning in class, portfolio, projects, and student-teacher conferences to gather information that will be useful for their planning and teaching.

- **Assessment ‘as’ learning** emphasizes on using assessment as a process of fostering metacognitive abilities in students. Students become aware and monitor their own learning and use the feedback to make adaptations in their learning to progress towards the learning outcomes. Students engage in reflective practices and critically analyse their own learning through this kind of assessment.
- **Summative** assessment also termed as **Assessment ‘of’ learning** help a teacher evaluate student learning after facilitating one or more chapters of a course by assigning grades, placing a set of students to remedial classes, promoting them to the next class and evaluating one’s own teaching.

	Formative Assessments	Summative Assessments
When is this conducted?	Continuously and is integrated with the teaching learning process.	Periodically and is conducted at the end of unit, term, or year.
Who conducts this assessment?	Students and Teacher	Teacher
How are the assessment results used?	Identify learning gaps and provide feedback and scaffolding to the student. Helps teachers to modify her instructions.	Provide marks or grades, promote, and certify students.

Table 1: Difference between formative and summative assessments

Evaluation and its Purpose

It is a broader process as compared to assessment. Evaluation is a systematic process of collecting, analysing, and interpreting data to make judgement about the attainment of learning outcomes being evaluated. Often, students’ attainment of learning outcomes is measured through a test paper.

Test

In classroom context, several assessment techniques which include test, activities, projects, and assignments are used to conduct summative assessments. In classroom context, one of the most used methods of conducting a summative assessment is test which is conducted through short written or oral mode and helps to capture students’ proficiency. For accountability assessments such as NAS and ASER, tests are designed to determine students’ levels of learning across a district, state, or country. Similarly for selection assessments, tests are used for selecting students for higher education and providing scholarships to students.

Measurement

It involves assigning a quantitative value against a student's performance in the given test. For classroom purpose, summative assessment aggregates all the evidences of learning up to a given point (mid-term or end-term) for making judgement about student's learning level based on marks/grades.

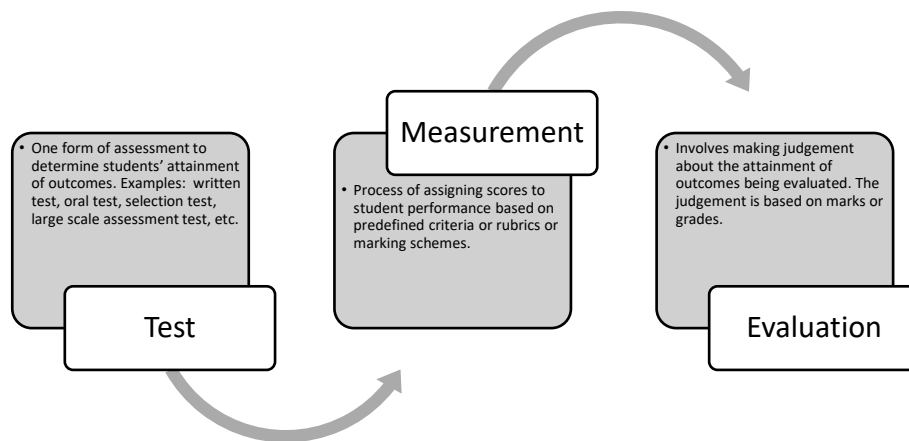


Figure 2: Test, Measurement and Evaluation

The nature of judgements in evaluation varies for every purpose of assessment [2]-

Purpose of assessment	Examples	Purpose of Evaluation
Assessment to support teaching and learning	Unit tests, Mid-term, End-term, etc.	Evaluation helps teachers gauge the extent to which students have achieved the learning outcomes set for a subject. This provides valuable information to teachers about the effectiveness of pedagogical approaches and teaching learning materials. Using the feedback from evaluation, students can reflect on their learning through identification of their strengths and weaknesses and thereby set goals for further learning.
Assessment for certification	Board exam, CTET, UGC-NET, etc.	Evaluation data can assist administrators, and policymakers in making informed decisions about curriculum development, instructional resource allocation, and educational policy formulation.
Assessment for Selection	IIT JEE, NEET, scholarship tests, etc.	Evaluation helps to make informed decisions for selecting suitable students/ candidates for higher education, scholarship, or job through assessing desired competencies.

Assessment for accountability	NAS, ASER, PISA, TIMSS, etc.	Evaluation helps to assess the extent of attainment of learning outcomes through recording academic achievement of students. At the school/ district/ state level, these results are used to assess the effectiveness of teaching methods and curriculum implementation which in turn informs policy decisions, resource allocation, and necessary interventions in the education system.
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Table 2: Evaluation in various purposes of assessment

Criterion, Norm, and Ipsative-Referenced Assessments

Criterion, norm, and ipsative-referenced assessments serve different purposes and provide distinct types of information [3]. They differ in their intended purposes, the way test content is selected, and the scoring process which defines how the test results must be interpreted. Each approach has their own merits and are used in different contexts based on the intended purpose of the assessment.

Criterion-referenced assessments

This kind of assessment focus on determining mastery of specific criteria or standards (learning outcomes). The test content is aligned to the learning outcomes and is selected based on the distribution of learning outcomes being evaluated. For classroom settings, students' attainment of learning outcomes is recorded in report cards in the form of marks or grades (Figure 1).

SUBJECT NAME	TERM I				TERM II				OVERALL (TERM I+ TERM II)			
	FA1	FA2	SA1	TOTAL (FA1 + FA2 + SA1)	FA3	FA4	SA2	TOTAL (FA3 + FA4 + SA2)	FA	SA	OVERALL GRADE	Grade Point
ENGLISH	A	A	A	A	A	A*	A*	A*	A	A*	A*	5
HINDI LANGUAGE	A*	A*	A*	A*	A*	A*	A*	A*	A*	A*	A*	5
MATHEMATICS	A*	A*	A*	A*	A	A*	A	A	A*	A	A	4
SCIENCE	A	A*	A	A	A	A	A	A	A	A	A	4
SOCIAL SCIENCE	A*	A*	A	A*	A*	B	A	A	A	A	A	4
COMPUTER	A*	A*	A	A*	A*	A*	A*	A*	A*	A*	A*	5
Cumulative Grade Point Average (CGPA): 4.5												

Figure 1: Sample report card for classroom assessment

The tests designed for certification and accountability are standardized in nature. A standardized test is one that uses uniform procedures for administration and scoring in order to ensure comparability in interpretation of scores across different set of students. Attainment of learning

outcomes are recorded in terms of grades or marks in certification tests (Figure 2) and in terms of average scores for accountability tests (Figure 3).

विषय कोड तथा नाम Subject Code and Name	कक्षा Class IX				कक्षा Class X				
	Grade FA	Grade SA	Overall Grade (FA+SA)		Grade FA	Grade SA	Overall Grade (FA+SA)		
			Grade	Grade Point (GP)			Grade	Grade Point (GP)	
101 ENGLISH COMM.	B1	B1	B1	08	A2	A1	A2	09	
085 HINDI COURSE-B	A2	A2	A2	09	B1	B1	A2**	09	
041 MATHEMATICS	A1	C1	A2	09	A1	A1	A1	10	
086 SCIENCE	A1	A2	A2	09	A1	A1	A1	10	
087 SOCIAL SCIENCE	B2	B1	B1	08	A2	A2	A2	09	
संचित ग्रेड बिन्दु का औसत (संचयी) Cumulative Grade Point Average (CGPA)								09.4	

Figure 2: Sample report card for certification assessment

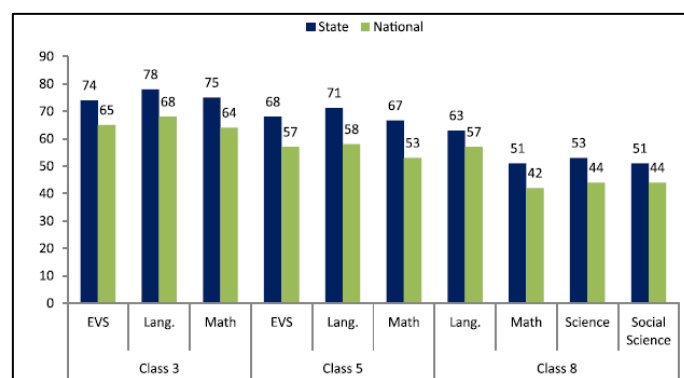


Figure 3: Students learning levels in assessment for accountability (NAS)

Norm-referenced assessments

These assessments help compare one student's performance with the performances of a large group of students. The score of individual student indicates how that student compares with others who have undergone the same assessment. This is an approach that has arisen because of the need for assessment that discriminates between students where a selection has to be made. Test content is selected according to how well it ranks students from high achievers to low.

The scores obtained in these assessments are based on a predetermined distribution, often represented as a bell curve. This distribution is derived from the performance of all test takers. The scores are interpreted in terms of percentiles, where a higher percentile indicates a higher relative performance compared to the norm group.

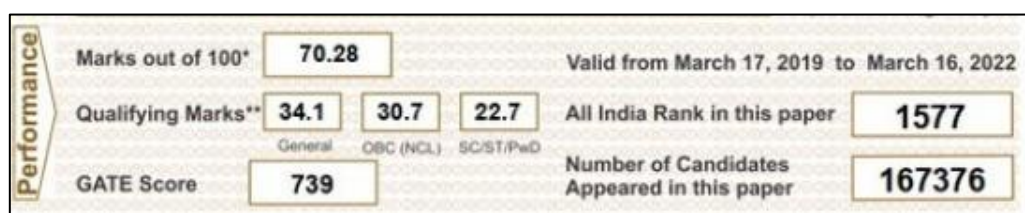
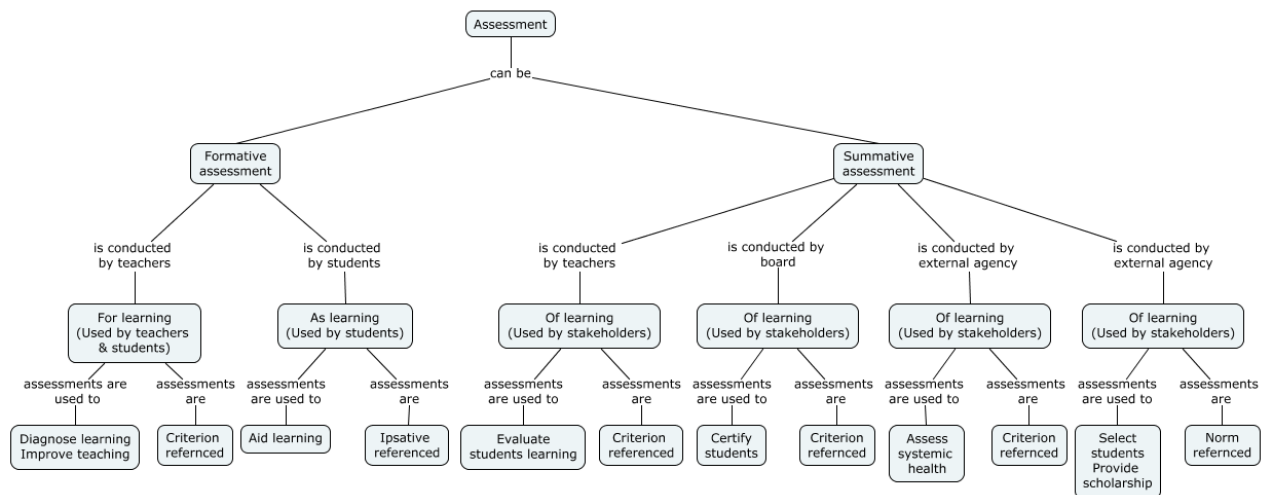


Figure 4: Report card for a selection assessment

Ipsative-referenced assessments

The term "ipsative" comes from the Latin word "ipse," meaning "self". This kind of referencing is used in case of assessment as learning. The emphasis here is on assessing an individual student's growth, improvement, or change over time in relation to their own prior performance. Instead of focusing on absolute scores or comparing performance to external standards (learning outcomes), ipsative assessments provide insights into an individual's relative strengths and weaknesses, progress, or developmental trajectory. These assessments involve self-reflection and self-comparison which helps in providing feedback for self-directed learning and development.

Bringing it all Together



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