Auditing Course Material

Part 61 of 61 (Chapters 6001-6035)

3. Learner centered Methods

Learner-centered methods emerged in the 19th century, recognizing the active role of learners in constructing knowledge. Learning is viewed as a dynamic process, where learners actively engage, reflect, and construct meaningful understanding. It involves active manipulation, construction, reflection, intentionality, complexity, contextualization, collaboration, and conversation to foster meaningful learning experiences.

Characteristics of Learner-centered methods

The major characteristics of the learner-centered methods are as follows:

- In learner-centered instruction, the focus shifts from the teacher as the center of knowledge to the learner as the central figure in the learning process.
- Instead of passively receiving information, students in learner-centered instruction actively engage in the learning process, participating in discussions, problem-solving, and critical thinking.
- The instructor's role in learner-centered instruction is to facilitate and guide the learning process rather than being the primary information giver and evaluator.
- Learner-centered approaches emphasize collaborative learning, where students not only learn from teachers but also from their peers, making knowledge acquisition a more dynamic and interactive process.
- Technology is often integrated into learner-centered instruction, with the use of computers, online resources, and various multimedia tools to enhance the learning experience.
- Assessment in learner-centered instruction includes both formative and summative evaluations, providing continuous feedback to learners and addressing qualitative aspects of their progress, rather than relying solely on traditional, summative assessments.

Types of Learner-centered methods

Some commonly used Learner centered Methods are given below:

Discussion

Panel Discussion

Debate

Brainstorming

Role play

Cooperative learning

Case Studies

Inquiry-Based Learning

Experiential Learning

1. Which of the following is a Group-centered method of teaching-learning? **(UGC NET 08 Oct 2022 Morning)**

- Providing lecture notes
- Team-teaching
- Demonstration method
- Brainstorming

Check

Question: 1 of 6 questions

4. Micro-Teaching

Micro-teaching is a product of research at Stanford University. It was first adopted in 1961 by Dwight W. Allen and his co-workers. Microteaching is a teaching technique commonly used for teacher training and development, involving the delivery of a short, focused lesson to a small group of learners. It follows a set of steps and characteristics, including lesson planning with clear objectives and instructional strategies, keeping the duration of the session short, conducting it with a small group for individualized attention, focusing on specific teaching skills, delivering the lesson using effective methods and materials, providing feedback from participants and observers, reflecting on the experience and self-evaluating teaching effectiveness, and repeating the process to refine skills and incorporate feedback for continuous improvement in instructional practices.

Micro-teaching is a structured process involving skill definition, expert demonstration, lesson planning, teaching to a small group, feedback discussions, skill refinement, and re-teaching to different groups. This cycle continues until the desired teaching skill level is attained.

Micro teaching is now a teaching training technique that is currently practiced worldwide, and provides teachers an opportunity to perk up their teaching skills by improving the various simple tasks called teaching skills. It in fact helps to promote real-time teaching experience. The core skills of micro teaching such as presentation and reinforcement skills help the novice teachers to learn the art of teaching at ease and to maximum extent.

Characteristics of Micro teaching

A few characteristics of micro teaching are as under:

- It is a teacher training technique and not a method of classroom instruction.
- It is micro in the sense that it scales down the complexities of real teaching.
- Out of contents a single concept is taken up at a time.
- Only one skill is practised.
- Size of the class is reduced and thus the number of students is just 5 to 7.
- Duration of each micro lesson is 5 to 7 minutes.
- Feedback is provided immediately after the completion of the lesson.
- The use of video tape and closed circuit television makes the observation very objective.
- It is highly individualized training device.
- There is high degree of control in practising a skill when this technique is used.
- It is constructed for the benefit of the teacher and student's learning is incidental.

1. A teacher teaches in a scaled clown actuation of teaching. Which of the following terms can be used for this typ teaching? **(UGC NET 22 Oct 2022 Evening)**

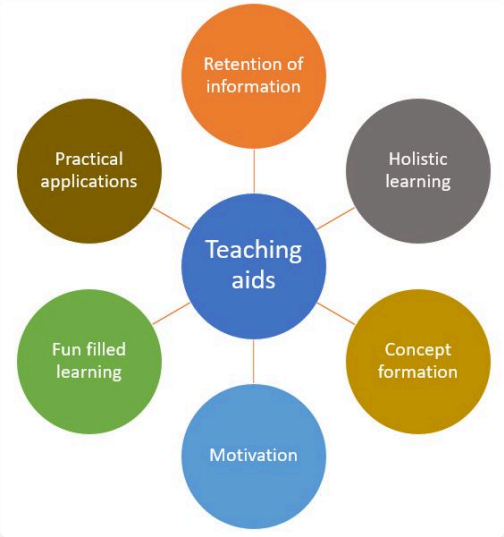
- Macro teaching
- Sampling teaching
- Cooperative teaching
- Micro teaching

Check

Question: 1 of 4 questions

1. Teaching Aids

Teachers are great facilitators of knowledge and skills in the 21st century teaching and learning profession. Teachers use teaching support systems, also called teaching aids to enhance classroom instruction, extract learners' attention and create a motivation to learn. These teaching aids are devices (computer, DVD), instructional aids (book, chalk board, picture), or objects (specimen, map, globe) that help the teacher to effortlessly carry out the teaching-learning process. A lot depends on the creative abilities of the teacher. The use of teaching aids can facilitate the learning process by making it interesting and less time consuming. The use of teaching aids enables learners to use their hearing or seeing abilities and actively perform something while learning.



Modern teaching support systems heavily rely on Information and Communication Technologies (ICT). They incorporate animations, videos, and slide images to create interesting content.

Teaching Aids can be classified on the basis of:

1. **Time Period** as conventional and non-conventional teaching aids
2. **Sense organs involvement** as auditory, visual, audio-visual and activity teaching aids
3. **Interactivity or engagement** as projective and non-projective teaching aids.

Let us discuss these teaching aids one by one.

1. Which teaching aids enhance the skills like reading, listening and pronunciation? **(UGC NET 21 June 2019 Mo**

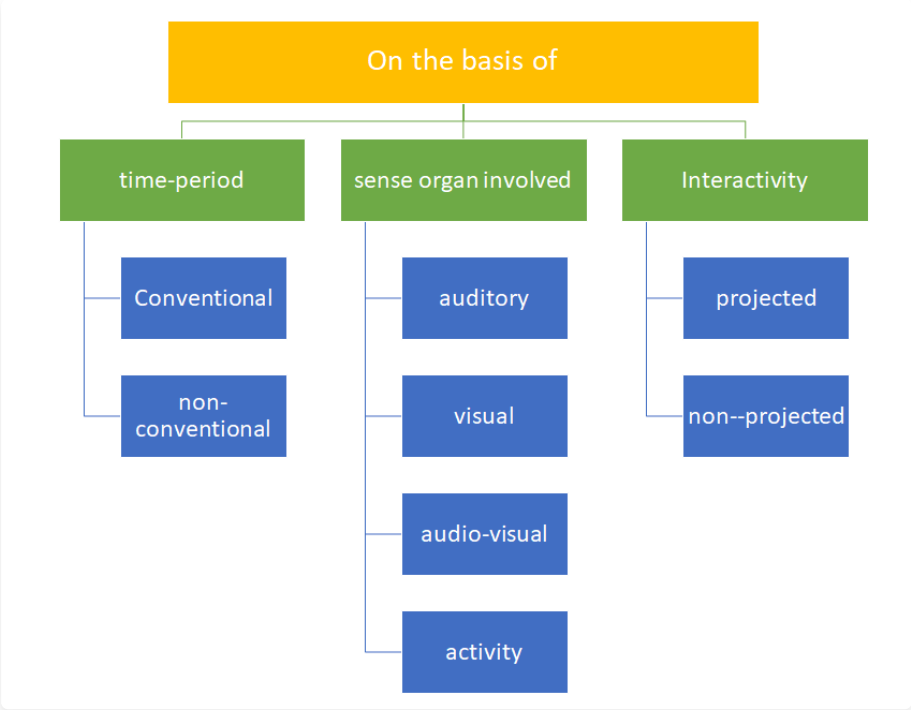
- ○ Audio-lingual teaching aids
- ○ Scientific teaching aids
- ○ General knowledge teaching aids
- ○ Theoretical based teaching aids

Check

Question: 1 of 5 questions

2. Types of Teaching Aids

Teaching aids can be categorised on the basis of time period, sense organ involved and interactivity.



> **On the basis of time-period**

> **On the basis of sense organs involved**

> **On the basis of interactivity or engagement**

1. Identify the tools for shared viewing of visual and other interactive content within real-time environments: **(UGC Oct 2022 Morning)**

a. Virtual whiteboard
b. Slide showing
c. Polling
d. Quizzing
e. Avatars

- ○ a, b, c, d only
- ○ a, b, d, e only
- ○ a, c, d, e only
- ○ b, c, d, e only

Check

Question: 1 of 6 questions

3. Concept Maps

A concept map is a visual representation or diagram that illustrates the relationships and connections between various concepts or ideas within a specific topic or domain. It uses nodes or boxes to represent individual concepts and lines or arrows to depict relationships or connections between these concepts.

For example, in a concept map about "Renewable Energy Sources," nodes could represent concepts like solar power, wind energy, hydroelectricity, and bioenergy. Arrows or lines would illustrate the connections between these concepts, showing how they relate to each other, such as how solar power and wind energy both contribute to renewable electricity generation.

Joseph D. Novak pioneered the development of concept maps, emphasizing their role in facilitating meaningful learning by visually organizing information, highlighting relationships, and aiding comprehension of complex topics. These graphical tools are widely used in educational settings to support learners in understanding and organizing information, promoting critical thinking, and facilitating a deeper grasp of interconnected concepts within a subject area.

1. What is the type of graphic organiser or mind tool used for knowledge organisation that can help learners interp represent, and organise information by making a graphic in cooperation with others? **(UGC NET 26 Nov Evening**

- ○ Divergent question
- ○ Concept mapping
- ○ Hyper media
- ○ Gestural prompts

Check

Question: 1 of 4 questions

1. Evaluation Systems

In the realm of education and data analysis, the terms "measurement," "assessment," and "evaluation" are frequently employed, often interchangeably, but they each serve distinct purposes and encompass unique processes. Understanding the differences between these terms is essential for educators, administrators, and researchers as they play pivotal roles in shaping the learning and decision-making processes.

Measurement involves the quantification of specific attributes, while *assessment* is a more comprehensive process aimed at gauging a student's progress and understanding in a particular area. In contrast, *evaluation* goes beyond individual performance, focusing on making judgments about the overall quality and effectiveness of educational programs or even an individual's performance on a broader scale.

The difference between Measurement, Assessment and Evaluation is given in the table below.

Aspect	Measurement	Assessment	Evaluation
Purpose	To quantify a specific attribute or characteristic.	To gather data on a student's performance and learning progress.	To make judgments about the quality, value, or effectiveness of a program, curriculum, or individual's performance.
Scope	Typically focused on a single dimension or specific attribute.	Broader in scope, encompassing various methods to evaluate a range of skills and knowledge.	Comprehensive, involving the overall assessment of programs or individuals, often over extended periods.
Timing	Can be conducted at any time and may be a one-time event.	Ongoing and continuous, occurring throughout the learning process.	Typically done at key points, such as the end of a course, program, or project.
Methods	Relies on specific tools and instruments, such as tests, scales, or surveys.	Utilizes a variety of methods, including quizzes, assignments, observations, and feedback.	Involves a combination of methods, including data analysis, expert judgment, and stakeholder input.
Focus	Concentrates on a specific attribute, often providing a numerical or categorical score.	Focuses on overall performance and learning progress, aiming to provide feedback for improvement.	Addresses the quality, success, and impact of the subject or program being evaluated.
Feedback	Typically provides data or scores with limited feedback.	Provides detailed feedback on student strengths and weaknesses, guiding improvement.	Informs decision-making and may lead to recommendations for change or improvement.
Examples	Measuring a student's height or weight.	Assessing a student's reading comprehension using a series of tests and assignments.	Evaluating the effectiveness of a school's curriculum in achieving educational goal

Let us understand the difference between measurement, assessment and evaluation more clearly with the help of an example.

If a student gets 75 marks out of 100 on a test, it is measurement. The measurement represents the numerical result of their performance. However, when the teacher collects additional data, such as homework assignments, class participation, and quizzes, and analyzes this information to gain a more comprehensive understanding of the student's strengths and weaknesses, this process is assessment. Finally, when the teacher is called upon to say whether the score of 75 out of 100 is good or poor, it is talking about evaluation. Evaluation involves applying criteria or standards to the assessment data to make judgments about the quality and significance of the student's performance.

1. Which of the following statements clearly defines purpose of Assessment and Evaluation?

(i) To identify students' strengths and weaknesses.
(ii) To assess the effectiveness of a particular instructional strategy.
(iii) To assess and improve the effectiveness of curriculum programmes.
(iv) To assess and improve teaching effectiveness.
(v) To communicate with and involve parents and guardians in their children's learning.
(vi) To assist in student learning.

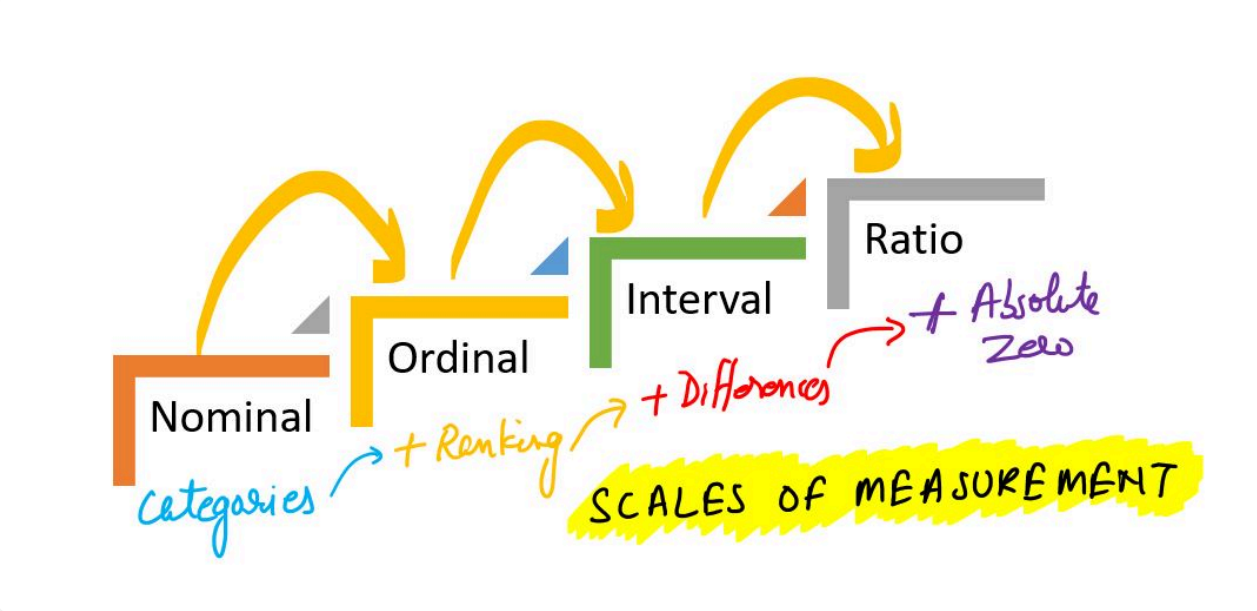
- ○ (ii), (iii) and (iv)
- ○ (i), (ii), (iii), (iv), (v) and (vi)
- ○ (ii), (iv) and (vi)
- ○ (i), (ii), (iii) and (iv)

Check

Question: 1 of 4 questions

2. Measurement

Measurement is the process of assigning numerical values to individuals or their characteristics based on specific rules. L. R. Gay simplified it as quantifying the extent to which someone or something possesses a given trait.



Scales of measurement categorize the numerical values assigned during measurement. There are 4 main scales:

- **1. Nominal Scale**
- **2. Ordinal Scale**
- **3. Interval Scale**
- **4. Ratio Scale**

1. Which of the following scales of measurement is synonymous to ranking or grading? **(UGC NET 10 Oct 2022 E**

- ○ Nominal scale
- ○ Ordinal scale
- ○ Interval Scale
- ○ Ratio Scale

Check

Question: 1 of 3 questions

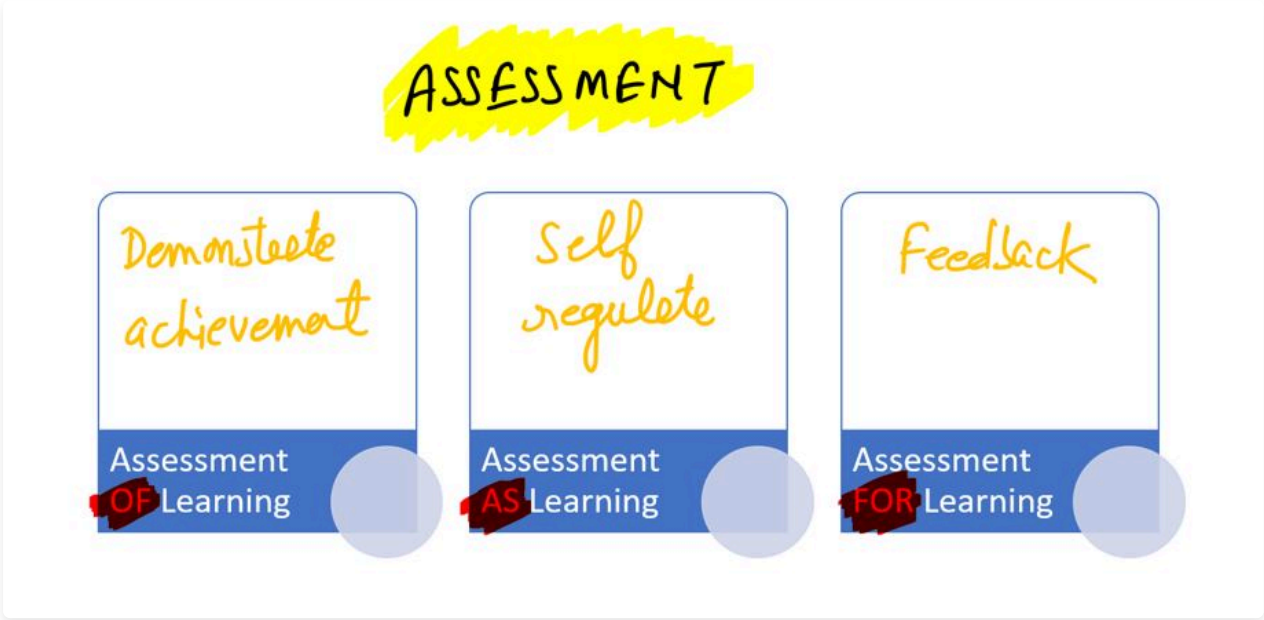
3. Assessment

Assessment is a systematic procedure for collecting information to make inferences about people or objects. It involves gathering data, making judgments, and improving teaching strategies for effective learning.

Teachers use classroom assessments to observe and provide feedback on students' learning progress, enhancing their teaching methods accordingly.

Measurement quantifies attributes, while assessment collects and interprets the quantified information about those attributes.

Assessment is considered as a part of the teaching-learning process and often categorized as assessment of learning, assessment for learning and assessment as learning.



Assessment of learning

Assessment for learning

Assessment as learning

1. The main focus of the teacher in designing assessments should be on: **(UGC NET 23 Oct 2022 Evening)**

- activities
- leaming outcomes
- attendance
- his/her behaviour

Check

Question: 1 of 6 questions

4. Evaluation

Evaluation in education plays a critical role in measuring and assessing student performance. It provides valuable insights into the effectiveness of teaching and learning processes, helping educators make informed decisions about instructional strategies and curriculum development.

Evaluation is a systematic process of collecting and analyzing data in order to determine whether, and to what degree, objectives have been, or are being, achieved. It leads to decision making.

Thus, Evaluation is an act or process that allows one to make a judgment about the desirability or value of a measure, which tells how good or how satisfactory an individual's performance has been. For example, a teacher measures Rahul's height to be 125 cm. She evaluates his height when she says that he is short.

The National Curriculum Framework, 2005 proposed evaluation reforms in the Indian school system, including the introduction of Continuous Comprehensive Evaluation (CCE) as a significant change in the examination system.

Continuous Comprehensive Evaluation (CCE)

CCE refers to a school based evaluation, which covers all aspects of school activities related to child's development. The term 'continuous' in CCE refers to regularity in assessment. The term 'comprehensive' in CCE implies that evaluation of learners' performance is carried out in both scholastic and co-scholastic areas. Thus, it emphasizes two fold objectives such as continuity of evaluation and assessment of learning outcomes in a comprehensive manner. It covers all the domains of learning i.e. cognitive, affective and psychomotor domains.

1. Which among the following factors doesn't contribute to assessment bias? **(UGC NET 4 Dec 2019 Evening)**

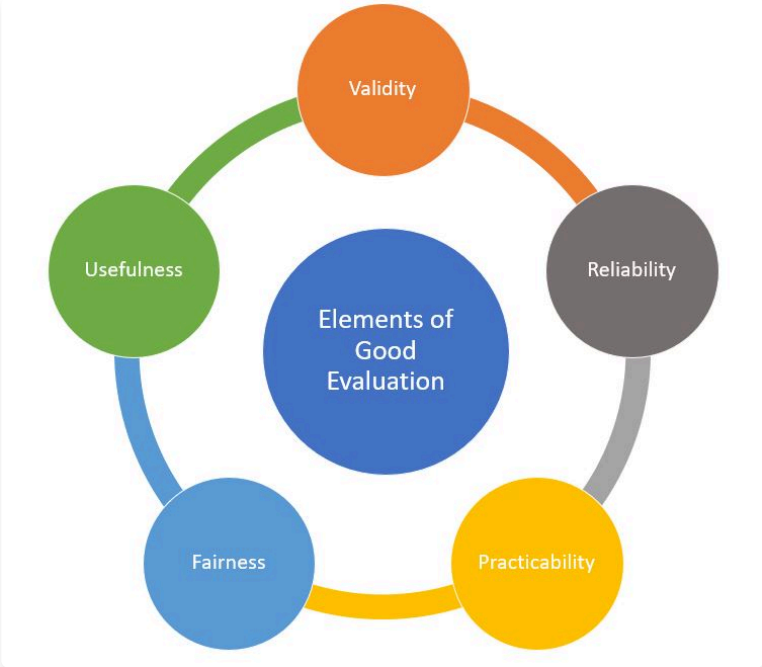
- ○ When language of the test and the tester is different from the language of the students.
- ○ Answers that support middle- class values.
- ○ If assessment procedures are flexible and diverse to make disadvantage students comfortable.
- ○ Objective test for assessing abstract reasoning of the student.

Check

Question: 1 of 6 questions

5. Elements of Good Evaluation

As an educator, it is essential to ensure that evaluations embody the following characteristics, referred to as the "elements of a good evaluation":



- **Validity:** The evaluation should accurately measure the specific behaviors outlined by the objectives being assessed. For example, in a mathematics exam, the questions should effectively gauge the students' understanding of the concepts and skills taught.
- **Reliability:** The evaluation should yield consistent results when administered under different but comparable conditions, regardless of individual evaluators. For instance, if multiple teachers grade the same essay, they should arrive at similar assessments of the student's writing ability.
- **Practicability:** The evaluation procedure should be realistic, practical, efficient, and considerate of factors such as cost, time, and ease of application. For instance, using multiple-choice questions in a large classroom setting can be a more practical and efficient way to assess knowledge compared to lengthy written responses.
- **Fairness:** The evaluation must be fair to all learners by accurately representing the range of expected behaviors outlined by the course objectives. For example, a physical education evaluation should consider the diverse abilities and provide opportunities for all students to demonstrate their skills, regardless of their fitness level.
- **Usefulness:** The evaluation should provide valuable feedback to learners, helping them identify their strengths and weaknesses and supporting their growth. For instance, a constructive feedback session after a presentation can help a student understand their areas of improvement in public speaking and guide them towards enhancing their communication skills.

1. Which of the following are the characteristics of an Ideal Evaluation in teaching-learning process ? **(UGC NET 2023 Evening)**

A. Comprehensiveness
B. Validity
C. Reliability
D. Subjectivity

- B and D Only
- A, B and C Only
- A, C and D Only
- B and D Only

Check

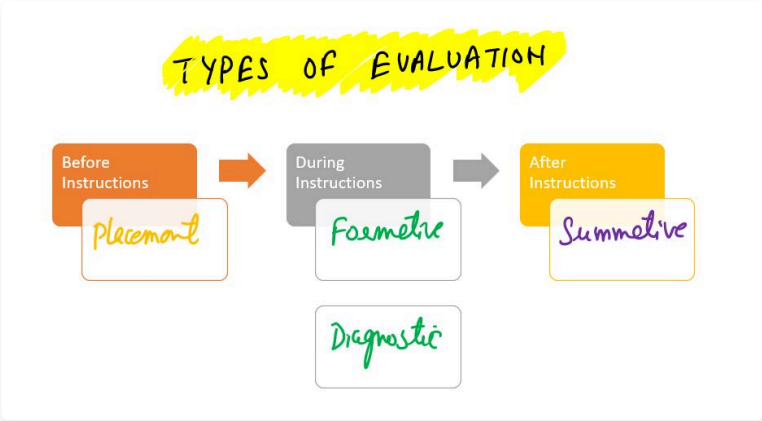
Question: 1 of 3 questions

6. Types of Evaluation

Evaluation in the educational landscape serves as a multifaceted tool with the power to guide decision-making, improve teaching and learning, and determine the effectiveness of educational programs. When exploring the world of evaluation, two crucial categorizations emerge - one based on its function, and the other based on its interpretation.

1. On the basis of Function

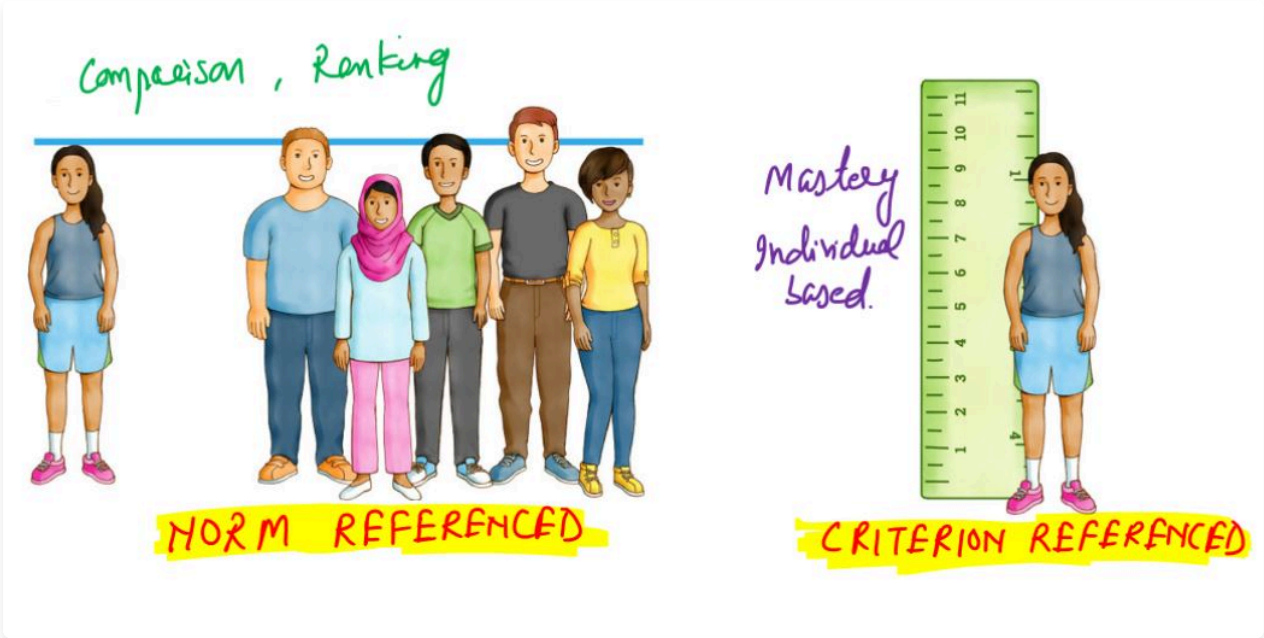
There are 4 types /approaches of Evaluation on the basis of function:



- **1. Placement Evaluation**
- **2. Formative Evaluation**
- **3. Diagnostic Evaluation**
- **4. Summative Evaluation**

2. On the basis of reference or Interpretation

There are 2 types /approaches of Evaluation on the basis of reference or interpretation:



- **1. Norm-referenced Evaluation**
- **2. Criterion-referenced Evaluation**

1. In order to identify individual differences of learners in a class, which of the following can be used by a teacher? **NET 12 July 2022 Morning)**

- Summative Assessments
- Formative Assessments
- Diagnostic Assessments
- Peer Assessments

Check

Question: 1 of 8 questions

7. Innovations in Assessment and Evaluation System

Some of the recent evaluation trends are listed below:

- **Question Banks**
- **Semester System**
- **Choice-Based Credit System (CBCS)**
- **Marking versus Grading System**
- **Open Book Examination**

1. Which of the following is INCORRECT regarding CBCS? **(UGC NET 20 Oct 2022 Morning)**

- CBCS is a framework to provide choices for electives and optionals to students.
- CBCS can be implemented only through online programmes.
- MOOCs can be used to provide choices for CBCS.
- Generic Electives and skill enhancement courses are provided under CBCS framework.

Check

Question: 1 of 6 questions

1. Characteristics of Test

A test serves as a tool for gathering information to assess specific attributes or qualities of an individual, such as knowledge, physical abilities, etc. Examples include unit tests, annual examinations, and assessments of physical fitness or body measurements etc.

Various characteristics of a test are discussed one by one.

Identify the incorrect statements with respect to tests?

- ○ Tests have some organized stimuli (test items) in an organized sequence to test some specific trait/attribute.
- ○ Test can be used as tool for quantitative measurement as well as qualitative assessment.
- ○ Test is a systematic tool to measure sample behaviour.
- ○ None of the above

Check

2. Reliability of Test

Test reliability refers to its consistency, stability, and accuracy in producing consistent results. Four common methods to assess test reliability are:

- **1. Test-retest Reliability**
- **2. Parallel-form Reliability**
- **3. Inter-rater Reliability**
- **4. Internal consistency Reliability**

Match List I with List II **(UGC NET 25 Sept 2020 Morning)**

List I (Methods of estimating the reliability of a test)
A. Test-retest method
B. Alternate form method
C. Split-half method
D. Inter-rater method

List II (Description)
I. Administering the test in one session with two equivalent halves of the test for correlation.
II. Two or more raters score the test independently.
III. Administering the same test to the same group at two different sessions.
IV. Administering the two forms of the test to the same group at two different sessions.

- ○ A - I, B - II, C - III, D - IV
- ○ A - II, B - I, C - IV, D - III
- ○ A - IV, B - III, C - II, D - I
- ○ A - III, B - IV, C - I, D - II

Check

3. Validity of Test

Validity refers to the accuracy and truthfulness of a test in measuring its intended purpose. Lee Cronbach defines validity as the extent to which a test measures what it claims to measure, while S.F. Freeman emphasizes its comparison with accepted criteria.

Different types of validity are commonly used in test preparation:

- **1. Face validity**
- **2. Content validity**
- **3. Criterion-related validity**
- **4. Construct validity**
- **5. Factorial validity**

Match the type of validity with its major source of problem:

LIST 1
(a) Construct validity
(b) External Validity
(c) Internal Validity

LIST 2
(i) Faulty or poor measure, resulting in mislabeling/ misinterpreting behaviour.
(ii) Treatment and no-treatment groups were unequal before the study began.
(iii) Sample of participants was not representative.

- ○ (a)-(i), (b)-(ii), (c)-(iii)
- ○ (a)-(iii), (b)-(i), (c)-(ii)
- ○ (a)-(ii), (b)-(i), (c)-(iii)
- ○ (a)-(i), (b)-(iii), (c)-(ii)

Check

4. Usability of Test

Usability refers to the ease and effectiveness of using a test in the classroom. While selecting an evaluation tool, practical considerations like ease of administration, scoring, interpretation, availability of comparable forms, and cost are important for usability. A good test should be user-friendly and enable teachers and school administrators to effectively utilize it.

5. Objectivity of Test

Objectivity in a test refers to the degree to which the test scores or results are free from bias and personal opinion. An objective test is designed to measure certain characteristics or abilities in a standardized and impartial manner.

Objectivity plays a significant role in the quality of a test, encompassing two key components: item-objectivity and scoring-objectivity.

Item-objectivity aims to guarantee that each test question has a single correct answer, preventing any ambiguity or the presence of multiple closely related responses.

Scoring-objectivity focuses on maintaining consistent scoring, a goal achieved by upholding item-objectivity and employing transparent scoring criteria. In other words, objective tests should yield consistent results regardless of who is scoring them. Objective-type questions naturally lend themselves to scoring-objectivity, while extra care must be taken with subjective questions to ensure equitable and uniform scoring practices.

---

1. Types of Tests

The various classification of tests are discussed below.

1. Aptitude Tests

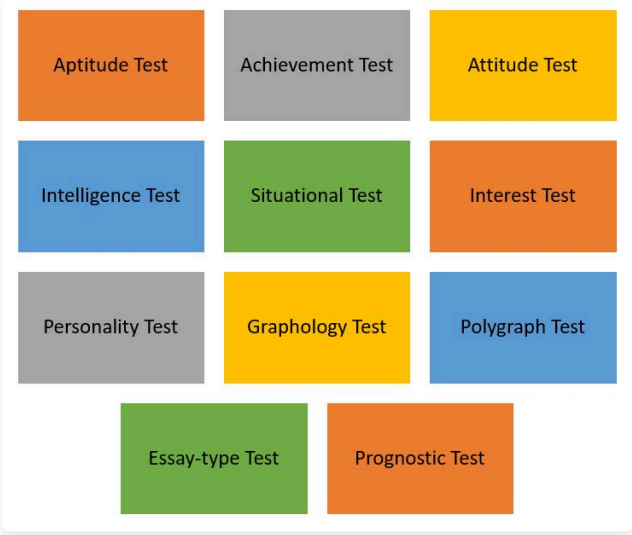
These tests measure whether an individual has the capacity or latent ability to learn a given skill or job if given adequate training. Aptitude can be divided into general and mental ability or intelligence and specific aptitudes such as mechanical, clerical and mental capacity etc. For example, Psychomotor Tests measure abilities like manual dexterity, motor ability and eye-hand coordination of candidates. Few examples of Aptitude Tests are Bloomberg Aptitude Test (BAT), Armed Services Vocational Aptitude Battery (ASVAB) etc.

2. Achievement Tests (also called Ability Tests)

These tests measure the skill or knowledge which is acquired as a result of training programme and on the job experience. These tests are classified into: Job knowledge test and Work sample test. **Job Knowledge Tests** (also called Knowledge Tests) are administered to determine knowledge like typing short-hand and in operating computers, or simple mechanical equipment. In **Work Sample Test,** a piece of actual work is given to the candidate as a test and the candidate is asked to do it. For example, a typing test would provide the material to be typed and note the time taken and mistakes committed. Few examples are Wechsler Individual Achievement Test (WIAT), Peabody Individual Achievement Test (PIAT) etc.

Based on process of construction, achievement tests are classified into two categories, namely, non-standardized tests (commonly known as **teacher made achievements tests or TMAT**) and standardized tests. In general, teacher made achievement tests are used in classroom teaching learning situations.

Aptitude and ability tests are classified as maximum performance tests because they test what you can achieve when you are making maximum effort. There are two different styles of maximum performance test; speed tests and power tests.



3. Attitude Tests

Attitude tests, such as the Likert Scale or the Thurstone Scale, are used to measure how an individual feels about a particular event, place, person or object.

4. Intelligence Tests

These tests help to evaluate traits of intelligence. Mental ability, presence of mind (alertness), numerical ability, memory and such other aspects can be measured. Few examples are Wechsler Adult Intelligence Scale, Wechsler Intelligence Scale for Children, Stanford-Binet Intelligence Scale etc.

5. Situational Tests

Situational tests evaluate a candidate in a similar real life situation. In this test the candidate is asked either to cope with the situation or solve critical situations of the job.

6. Interest Test

The purpose of this test is to find out whether a candidate is interested or disinterested in the job and to find out in which specific area of the job/occupation the candidate is interested. It is also known as Interest Inventory Test. It was first developed in 1927 by E.K. Strong.

7. Personality Tests

These tests measure a projected employee's motivation in a particular working environment and try to discover an individual's value system, his emotional reactions and motivation and his characteristic mood. Examples of such tests are Bell's Adjustment inventory, the California test of Personality scale, Minnesota multiphasic personality inventory thematic Apperception test, The Thurstone Temperaments Survey, and Guild Ford-Zimmerman Temperament Survey.

Personality Tests are of 2 types: Objective Tests and Projective Tests.

Objective Tests

Projective Tests

8. Graphology Test

It is designed to analyze the handwriting of an individual.

9. Polygraph Tests

These tests are designed to ensure accuracy of the information given in the application. These tests record on paper physiological changes in blood pressure, pulse, skin, sensitivity caused by stress.

10. Essay type Tests

It is a test that requires the student to compose responses, usually lengthy up to several paragraphs. It is useful to evaluate compositional and Presentation skills of the students.

11. Prognostic Test

This test is a measure which predicts how well a person is likely to do in a certain school subject or task. It is meant for fore-telling, prediction and forecast designed to predict the student's ability or readiness to undertake the study.

1. Achievement tests are commonly used for the purpose of:

- ○ Making selections for a specific job.
- ○ Selecting candidates for a course.
- ○ Identifying strengths and weaknesses of learners.
- ○ Assessing the amount of learning after teaching.

Check

Question: 1 of 5 questions

2. Rating Scale

A rating tool is designed to allow evaluators, project or programme staff, or beneficiaries to rate performance, competence, progress or quality along a common, agreed scale. Rating tools often ask people to rate along a continuum. For example, participants may be asked to rate the quality of a training course from '1' to '10', with '1' representing 'very poor' and '10' representing 'excellent'. Other rating tools provide a series of pre-defined statements for each point on the scale.

The example of rating scales are:

- *Likert Scales:* Participants are presented with a series of statements related to a particular topic, and they are asked to indicate their level of agreement or disagreement with each statement using a scale (e.g., strongly disagree, disagree, neutral, agree, strongly agree).
- *Visual Analog Scales (VAS):* Instead of discrete numerical ratings, participants mark a point along a continuous line to indicate their response. For example, they might mark a point on a line that ranges from 'not at all satisfied' to 'completely satisfied.'
- *Semantic Differential Scales:* Participants rate an object, concept, or experience using pairs of adjectives or phrases at opposite ends of a scale. For instance, they might rate a product's taste using a scale that has 'bland' on one end and 'flavorful' on the other.

The two common categories of rating scales used in schools are numerical scales and graphic scales.

Limitations of Rating Scales

The limitations of rating scales are discussed below:

> **Error of leniency**

> **Error of central tendency**

> **Halo effect**

> **Logical error**

> **Contrast error**

> **Proximity error**

When the middle of the scale is followed by a rater, then it is known as:

- ○ Error of leniency
- ○ Error of Central Tendency
- ○ Halo Effect
- ○ Proximity Error

Check

1. ICT in Education

Information and Communication Technology (ICT) has revolutionized education by offering a diverse range of tools and resources that enhance the learning experience. Through ICT, students can access a wealth of information beyond textbooks, fostering a deeper understanding of subjects. Interactive learning platforms and educational software engage students in dynamic ways, making learning more captivating and effective. These technologies also enable personalized learning experiences, catering to individual learning styles and paces, ultimately promoting a more inclusive and adaptive educational environment.

Moreover, ICT in education facilitates global connectivity, allowing students and educators worldwide to collaborate and share ideas seamlessly. The integration of technology in classrooms promotes essential skills like digital literacy, problem-solving, and critical thinking, essential for the modern workforce. Additionally, ICT streamlines administrative tasks, making educational processes more efficient. However, challenges such as the digital divide and the need for proper teacher training in technology use remain important considerations in fully harnessing the potential of ICT in education.

Teacher 'A' uses chalk and board and dictates notes to students in classroom. Teacher 'B' uses Videoconferencing LMS for providing digital resources. Which modes of teaching are used by teacher A and teacher B? **(UGC NET 2 2022 Evening)**

- ○ Both online
- ○ Both offline
- ○ Teacher-A: online; Teacher-B: offline
- ○ Teacher-A: offline; Teacher-B: online

Check

2. Learning Management System

A Learning Management System (LMS) is a software application or platform used by educational institutions, organizations, or individuals to manage and deliver educational courses or training programs. LMS provides various functionalities such as course administration, documentation, tracking learner progress, generating reports, and facilitating communication and collaboration between instructors and learners.

Generally, LMS fall into 3 broad categories:

1. **A proprietary LMS** is generally accountable for the well-functioning of the system and relieves an institution from the responsibility of managing it and ensuring that it functions properly all the time to avoid disadvantaging students. Its main disadvantage is that an institution has to shoulder the costs for all-the-time service. A proprietary LMS does not give much room for customisation to suit the particular needs of an institution.
2. **Open source LMS** is often free, which makes them quite attractive to institutions. The only time payment is required is when an institution decides to make additions to the already designed platform. An open-source LMS is easy to use and also customizable. You can access the source code and personalize your learning portal, add features, and even fix bugs. The main disadvantage of open-source LMS is that it comes with some hidden costs such as hosting fees, back-ups, extra storage space and more technical support.
3. **Cloud-based LMS** has very low initial costs and is easily scalable. This type of LMS does not require users to install hardware or software on their systems. All the data and information are stored in the cloud, which means one can use the LMS from any Wi-Fi-enabled mobile device. Because of the flexibility and convenience, a cloud-based learning solution is a great option for organizations to consider. There is, however, lack of enough security of data associated with cloud-based LMS.

1. For effective integration of ICT in teaching-learning, the following should be used for providing online content, assessments, and for seamless virtual interaction of teachers with learners: **(UGC NET 20 Oct 2022 Evening)**

- ○ WhatsApp
- ○ Content Management System
- ○ Learning Management System
- ○ Facebook

Check

Question: 1 of 3 questions

2. Learning Management System

Moodle

MOODLE (Modular Object-Oriented Dynamic Learning Environment) is an extensively utilized open-source learning management system (LMS) that enables educators to create and administer online courses. It offers a comprehensive platform for organizing course materials, delivering digital content, facilitating student interaction via discussion forums, conducting assessments, and monitoring student progress. Moodle is highly favored in educational institutions and various organizations as it supports e-learning and blended learning approaches, enhancing the overall learning experience.

Canvas LMS

Canvas LMS is an open-source Learning Management System that serves as a central hub for online, hybrid, and in-person classrooms. As a modern education tool, Canvas LMS connects teachers and educators to their students.

Google Classroom

Classroom is a new tool in Google Apps for Education that helps teachers create and organize assignments quickly, provide feedback efficiently, and easily communicate with their classes. Classroom helps students organize their work in Google Drive, complete and turn it in, and communicate directly with their teachers and peers.

Some other prominent LMS are:

- Hubris
- Blackboard
- Talent LMS
- Schoology
- Absorb LMS

1. What is the full form of MOODLE, an open source Learning Management System (LMS)? **(UGC NET 09 July 2 Morning)**

- ○ Modular Object Oriented Digital Learning Environment
- ○ Modular Object Oriented Dynamic Learning Environment
- ○ MOOCs Oriented Digital Learning Environment
- ○ Multiple Object Oriented Dynamic Learning Environment

Check

Question: 1 of 2 questions

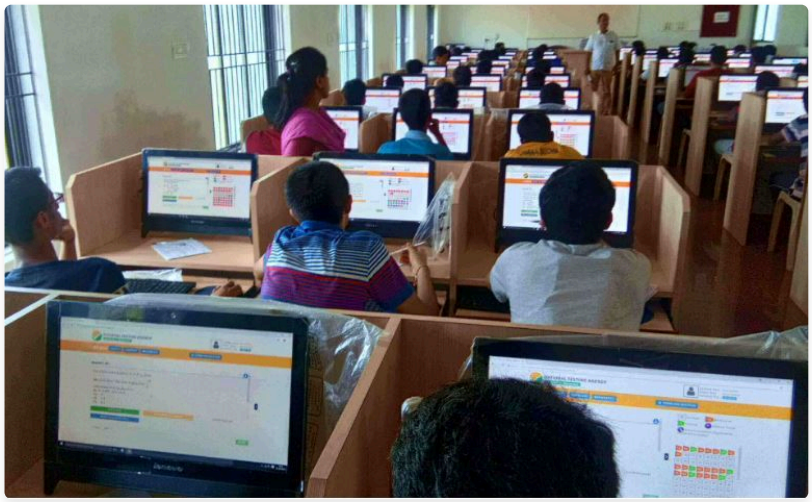
3. ICT in Evaluation

Advancements in technology have revolutionized student evaluation. Traditional methods like oral and written tests suffered from manual checking, result delays, and potential cheating.

However, computer-assisted and computer-based evaluation have addressed these issues. In computer-based evaluation, tests are conducted on computers, allowing for personalized question papers with different content or order. Online administration saves responses for efficient evaluation, significantly reducing processing time. For instance, the NTA now declares UGC NET results within 10 days.

Computer-based testing

Computer-based testing, or CBT, refers to the administration of exams and tests through computer systems instead of traditional paper and pencil formats. CBT is widely utilized in various domains, including educational institutions like colleges and schools, competitive exams, employee training programs, and numerous other platforms.



CBT offers several advantages, such as convenient scheduling, a reduced risk of cheating, improved accessibility for individuals with disabilities, and user-friendly tutorials.

On the flip side, it also comes with some disadvantages, notably technical issues and internet connectivity challenges. The adoption of computer-based tests can pose certain challenges for students, primarily concerning technical problems and computer proficiency when taking CBT. These challenges can hinder the smooth implementation of computer-based exams. For instance, disparities in computer skills among users may create barriers to equitable test administration. Furthermore, practical issues related to hardware and software can also present obstacles to the successful execution of CBT.

4. Asynchronous and Synchronous Instructions

Asynchronous and synchronous instructions represent innovative approaches to instructional delivery that educators can utilize when incorporating information and communication technology (ICT) tools into their teaching methods.

Asynchronous instruction, operating through e-learning platforms, extends the teacher-student interaction beyond the traditional classroom boundaries. This student-centered teaching method employs e-learning resources to facilitate information sharing without the constraints of time and location among a network of individuals. In the asynchronous approach, instruction occurs without the physical presence of participants (teacher-student presence) at the same time. Consequently, instructional delivery is not simultaneous and can occur at any time and from any location. For example, a teacher might choose to deliver a lesson via videotape, YouTube, Digital Video Disc (DVD), or a podcast, with students responding later through communication modes like email.

On the other hand, **synchronous instruction** involves instant connection between participants (teacher-students) through an online communication medium, enabling real-time teaching and learning. This method is defined as delivering instruction in real-time using an e-learning platform. Common platforms for synchronous instruction include video conferencing, audio conferencing, internet chats, or Skype communications.

1. Which of the following are examples of Asynchronous communication? **(UGC NET 11 Mar 2023 Evening)**

A. Blog
B. Podcast
C. Electronic Mail
D. Discussion Forum
E. Phone calls

- ○ B and E only
- ○ C, D and E only
- ○ A, C and D only
- ○ A, B, C and D only

Check

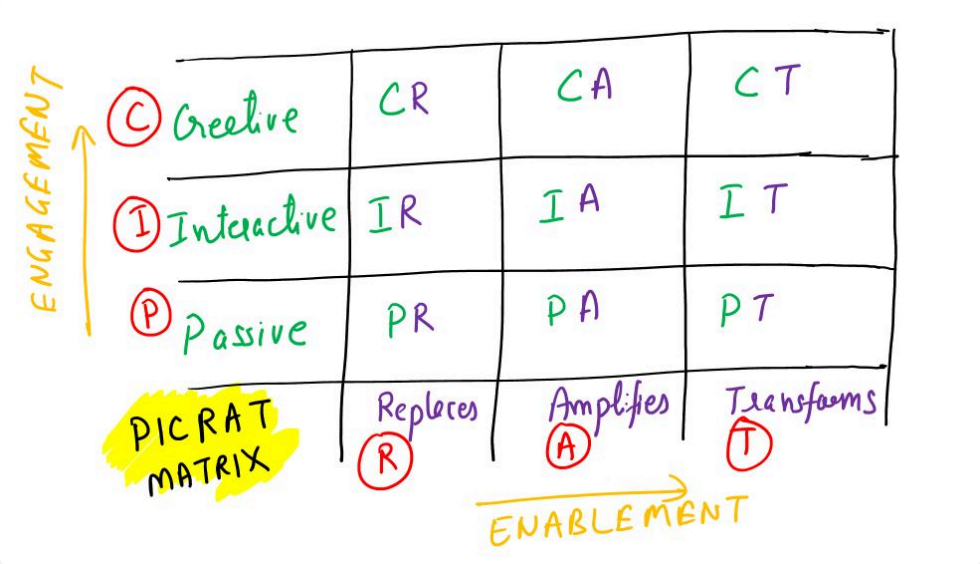
Question: 1 of 3 questions

5. Technology Frameworks

Let's delve into essential frameworks that play a vital role in enhancing the learning experience through technology.

5. Technology Frameworks

PICRAT is a technology integration model for teacher education intended to assist teachers in improving their classroom practices. PICRAT has 2 parts representing two guiding questions: PIC and RAT.



The PIC part responds to the question "What is the student's relationship to the technology" with one of three responses: Passive, Interactive, or Creative.

The RAT part responds to the question "How is the use of technology influencing the teacher's existing practice" with one of three responses: Replacement, Amplification, or Transformation.

The Replace-Amplify-Transform (RAT) model proposes that technology tools can serve one of three purposes: (a) as a direct replacement for traditional learning activities (e.g., simply takes the place of another activity); (b) as a way to amplify learning (e.g., make an educational activity more efficient or impactful); and (c) as a means to transform learning (e.g., result in new types of learning not previously possible)

Answers to these two questions are organized into a 3x3 visual matrix (with PR on the bottom left and CT on the top-right).

Practices are interpreted hierarchically with more active, more effective, and better-justified classroom technology practices generally occurring at the top-right of the matrix.

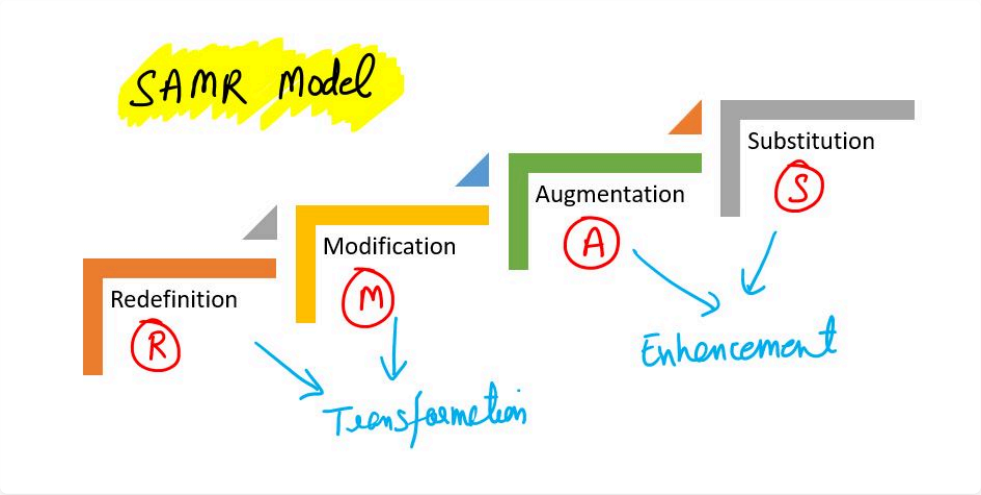
Out of the following, which technology integrated model is more useful for researchers to use? (UGC NET 23rd M Evening)

- ○ TPACK
- ○ SAMR
- ○ RAT
- ○ PICRAT

Check

5. Technology Frameworks

The SAMR Model, crafted by Dr. Ruben Puentedura, delineates 4 levels of technology integration in classrooms: Substitution, Augmentation, Modification, and Redefinition. It was devised to establish a shared language among educators aiming to personalize learning and help students comprehend intricate concepts. Especially relevant in remote or blended learning settings, the model makes teaching and learning more seamless by merging classroom technology with educational processes.



Instead of viewing the SAMR model as fixed stages, it's more beneficial to consider it as a continuum. At one end, technology substitutes traditional tools, while at the other, it empowers experiences that were previously unattainable without it.

The model begins with *Substitution,* where technology directly replaces conventional teaching tools or methods, such as using electronic versions of documents instead of hard copies.

Augmentation builds on this by enhancing student productivity, for instance, by incorporating multimedia and interactive elements into presentations.

Modification, the next stage, signifies a shift towards transformative learning. It involves altering the lesson's design and outcome, fostering new synthesis of existing material or collaboration within a learning management system.

Finally, *Redefinition*, the pinnacle, showcases technology's capacity to reshape traditional learning tasks, enabling novel experiences like real-time interactions with individuals from diverse regions or countries to explore constitutional differences.

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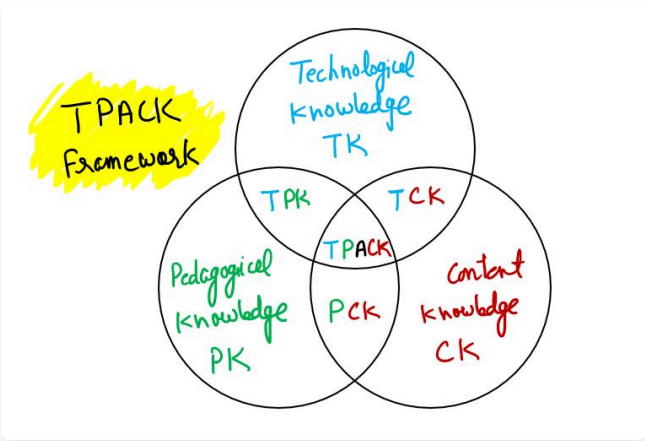
5. Technology Frameworks

The TPACK framework, a technology integration model, identifies 3 essential types of knowledge that educators must amalgamate for effective integration of educational technology—technological, pedagogical, and content knowledge.



For instance, consider delivering content through your learning management system (LMS). Even if you possess adequate knowledge of both the content (CK) and the LMS (TK), simply presenting an entire online course through text-based PDFs may not enhance the learning experience.

While this demonstrates proficiency in content and technical knowledge, it may be argued that it lacks the potential to improve the learning experience. On the other hand, if you recognize how the content can be presented interactively, such as through video, class discussion, games, etc., and you know how to implement these methods via your LMS, you have elevated your expertise to Technical Content Knowledge (TCK).

Given below are two statements: **(UGC NET 01 Mar 2023 Evening)**

Statement I: TPACK (Technological Pedagogical Content Knowledge) framework has been developed by Mishra a Kochler in 2006.

Statement II: TPACK framework comprises of total six components.

- ○ Both Statement I and Statement II are correct.
- ○ Both Statement I and Statement II are incorrect.
- ○ Statement I is correct but Statement II is incorrect.
- ○ Statement I is incorrect but Statement II is correct.

Check

6. e-Portfolio

An e-Portfolio is a digital collection created by a student of their course-related work, like essays, posters, photographs, videos, and artwork; academic ePortfolios can also capture other aspects of a student's life, such as volunteer experiences, employment history, extracurricular activities, and more. In other words, ePortfolios document and make visible student learning. But a good ePortfolio should be more than just a collection of products.

A good ePortfolio is both a product (a digital collection of artifacts) and a process (of reflecting on those artifacts and what they represent). Like a Learning Management System (LMS), ePortfolios exist online and support student learning.

However, they differ from LMS in two key ways: ownership and control. In a university course, the LMS is "owned" and managed by the instructor who decides who has access, what tools are turned on or off, and so on. With an ePortfolio, the student is in charge: the student decides who can view the ePortfolio, what artifacts get added, how it is designed, and so on. Typically, a student loses access to the LMS when courses end, while ePortfolios remain the student's property after finishing university.

Seesaw is a student-driven digital portfolio that empowers students to independently document what they are learning at school. This app lets students show the way they understand the world by using videos, images, PDFs, drawings, and links to connect ideas.

_____ is a digitized collection of artifacts, resources, and accomplishments of an individual or group that forms personal online spaces called as digital learning Platforms. **(UGC NET 28 Mar 2023 Evening)**

- ○ Automated Text Marker (ATM)
- ○ E- Portfolios
- ○ Discourse structure analysis
- ○ Calibrand Marker

Check

7. e-Rubric

An e-Rubric, or electronic rubric, is a digital assessment tool used by teachers to define and explain the competencies and criteria that students are expected to achieve during the learning process. It serves as a guideline for evaluating the performance or work results of students. E-Rubrics are specifically designed to assess students' performance and provide predetermined criteria for how their work will be evaluated, often including specific examples. This technology allows students to monitor their progress, understand the required competencies, and know how to achieve them. E-Rubrics describe the specific characteristics of learning outcomes, such as products, assignments, and practicums, and the performance levels that students need to attain. Students are provided with directions and information about the assessment criteria, the assessment process, and the tasks they need to complete, all of which are incorporated into the task assessment.

8. Flipped Classroom

A flipped classroom is an instructional approach that reverses the traditional learning environment. In a flipped class, students first engage with the learning material at home, often through videos, readings, or online resources. This independent study allows them to acquire the necessary knowledge before coming to class. In turn, class time is then utilized for activities, discussions, and exercises where students actively apply, interact with, and clarify the knowledge they gained at home. Instructors facilitate this process, guiding students through discussions and activities that reinforce and deepen their understanding of the material.

The flipped classroom model aims to make learning more interactive and engaging by using valuable in-person class time for active learning, problem-solving, and critical thinking, rather than primarily for lectures or content delivery.

1. Given below are two statements: **(UGC NET 11 July 2022 Evening)**

Assertion 'A': Flipped classroom is a learner-centric effective model for ICT enabled teaching-learning or blended

Reason 'R': Students learn concepts through videos and in classroom, teacher-guided discussions and problem s done in face-to-face mode.

- ○ Both A and R are correct and R is the correct explanation of A.
- ○ Both A and R are correct but R is NOT the correct explanation of A.
- ○ A is correct but R is not correct.
- ○ A is not correct but R is correct.

Check

Question: 1 of 3 questions

9. MOOC

MOOC stands for Massive Open Online Course. It's an online course aimed at unlimited participation and open access via web. MOOCs are designed to offer flexible and affordable education to a large number of learners. These courses often provide video lectures, readings, quizzes, and forums for interactive discussions, accommodating thousands of students simultaneously.

They cover a wide range of subjects from various fields, and many are offered by universities and platforms like Coursera, edX, and Udemy. MOOCs have gained popularity due to their accessibility and the opportunity they provide for people to learn at their own pace from anywhere in the world.

Some of MOOC courses are free and some are paid.

MOOC platforms across the globe

Across the world, there are many colleges, universities, and other higher education institutions which provide several MOOCs platform.

> **MOOC Platforms from North America & United States**

> **MOOC Platforms from Europe & United Kingdom**

> **MOOC Platforms from India**

1. Which of the following is NOT a characteristic of a MOOC? It can be accessed: **(UGC NET 09 July 2022 Even**

- ○ Anytime
- ○ From any device having Internet browser
- ○ Only in the classroom
- ○ Anywhere

Check

Question: 1 of 4 questions

9. MOOC

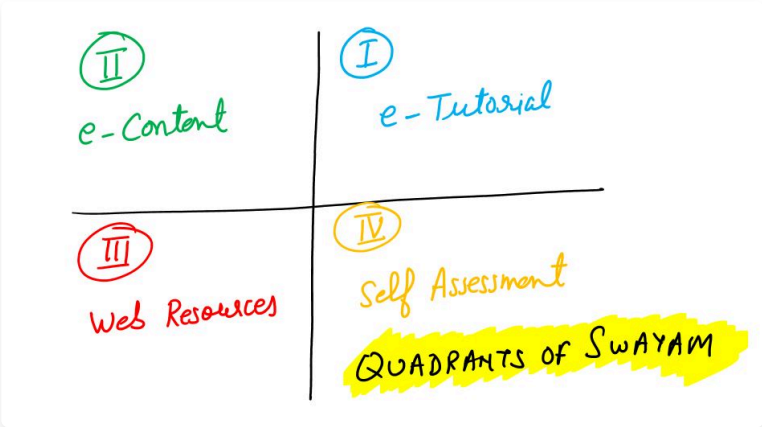
SWAYAM (Study Webs of Active-Learning for Young Aspiring Minds) is an initiative introduced by the Ministry of Education. It's an online platform that offers free online courses and learning materials. The courses on SWAYAM cover a wide range of subjects and levels, including school-level courses (from class 9), undergraduate and postgraduate courses, and various skill development programs.

SWAYAM provides high-quality educational resources created by experienced teachers and professionals. These courses are available in various formats, including video lectures, readings, quizzes, and assignments. The platform's objective is to make education accessible to all, utilizing technology to reach learners across India, especially in remote areas, and promote lifelong learning. SWAYAM also issues certificates upon the completion of courses, making it beneficial for students and professionals seeking to enhance their skills and knowledge.

SWAYAM is designed to achieve the 3 cardinal principles of Education Policy viz., access, equity and quality. The objective of this effort is to take the best teaching learning resources to all, including the most disadvantaged.

Courses delivered through SWAYAM are available free of cost to the learners, however learners wanting a SWAYAM certificate should register for the final proctored exams that come at a fee and attend in-person at designated centres on specified dates.

Four Quadrants of SWAYAM



The courses being offered on SWAYAM have following the four-quadrant instructional design:

1. **Quadrant-I is e-Tutorial,** which shall contain Video and Audio Content in an organised form, Animation, Simulations, video demonstrations, Virtual Labs, etc.
2. **Quadrant-II is e-Content,** which shall contain PDF, Text, e-Books, illustrations, video demonstrations, documents and Interactive simulations wherever required.
3. **Quadrant-III is Web Resources,** which shall contain Related Links, Wikipedia Development of Course, Open source Content on Internet, Case Studies, books including e-books, research papers & journals, Anecdotal information, Historical development of the subject, Articles, etc.
4. **Quadrant-IV is Self-Assessment,** which shall contain Problems and Solutions, which could be in the form of Multiple Choice Questions, Fill in the blanks, Matching Questions, Short Answer Questions, Long Answer Questions, Quizzes, Assignments and solutions, Discussion forum topics and setting up the FAQs, Clarifications on general misconceptions.

National Coordinator (NC)

National Coordinators are the Institutions that have been so designated by the Ministry and assigned a specific sector or preparation of online courses for SWAYAM. The list of 9 National Coordinators is:

1. ICTE (All India Council for Technical Education) for self-paced and international courses
2. NPTEL (National Programme on Technology Enhanced Learning) for Engineering
3. UGC (University Grants Commission) for non technical post-graduation education
4. CEC (Consortium for Educational Communication) for under-graduate education
5. NCERT (National Council of Educational Research and Training) for school education
6. NIOS (National Institute of Open Schooling) for school education
7. IGNOU (Indira Gandhi National Open University) for out-of-school students
8. IIMB (Indian Institute of Management, Bangalore) for management studies

9. NITTTR (National Institute of Technical Teachers Training and Research) for Teacher Training programme.

1. Given below are two statements: **(UGC NET 05 Mar 2023 Morning)**

Statement I: Course material provided through digital platform like SWAYAM, helps learners go through it at any ti
any place.

Statement II: Discussion boards work as asynchronous medium as anyone can post any question or reply at any

- ○ Both Statement I and Statement II are true.
- ○ Both Statement I and Statement II are false.
- ○ Statement I is true but Statement II is false.
- ○ Statement I is false but Statement II is true.

Check

Question: 1 of 3 questions

10. Important Online Tools

Some of the important online tools are given below.

- **Piktochart**
- **MindMeister**
- **Quizziz**
- **Classcraft**
- **Screencastify**
- **Wakelet**
- **Pixton**
- **Animaker**
- **Plotagon Story**
- **Powtoon**
- **Book Creator**
- **Padlet**
- **Hot Potatoes**
- **Socrative**
- **Learning pods**
- **Kahoot**
- **Google Forms and Google Quiz**
- **Google Jamboard**
- **Koha**

1. If you want to access the students performance and want to give them immediate feedback, which software wil select? **(UGC NET 21 Mar 2023 Evening)**

- ○ Kahoot
- ○ Animaker
- ○ Plotagon
- ○ Powtoon

Check

Question: 1 of 3 questions

11. Key Concepts in Online learning

Some of the key concepts in online learning are given below.

- **Video conferencing**
- **Discussion board**
- **Podcasts**
- **Webcasting**
- **Blogs**
- **Wiki**

1. Given below are two statements: **(UGC NET 15 Mar 2023 Morning)**

Statement I: Podcasts are digital audio or video files containing meaningful content.

Statement II: Blogs are personal websites that contain content like a Journal or diary.

- ○ Both Statement I and Statement II are true.
- ○ Both Statement I and Statement II are false.
- ○ Statement I is true but Statement II is false
- ○ Statement I is false but Statement II is true.

Check

Question: 1 of 5 questions