

What is Assessment of learning?

“ It is the process of gathering , interpreting , recording & using information about pupils responses to an educational task ”

Traditional Assessment

Traditional assessments usually produce a written document, such as a paper , test, or quiz.

Take place at the end of a chapter , unit, or course of study.

Use the following types of questions

- * True / False
- * Short- Answer.
- * Multiple Choice.
- * Fill in the blanks.
- * Matching.
- * Essay.

Students are usually tested individually. Students receive a numerical score or grade, which often contributes to a students final grade. Subject areas are usually tested in isolation. Also known as standardized assessment or summative assessment.

Traditional Teacher

- Lecture all day long.
- Prevent change.
- Teach to the test.
- Controller of the learning environment.
- Decision maker.

They regard students as having “knowledge holes’ that need to be filled with information. They regard students as having “ Knowledge holes” that need to be filled with

information. The lesson's content & delivery are considered to be most important. Students master knowledge through drill & practice (repeated learning).

CONSTRUCTIVISM

Knowledge is constructed by learners through an active, mental process of development. Learners are the builders & creators of meaning & knowledge..

Constructivist Assessment

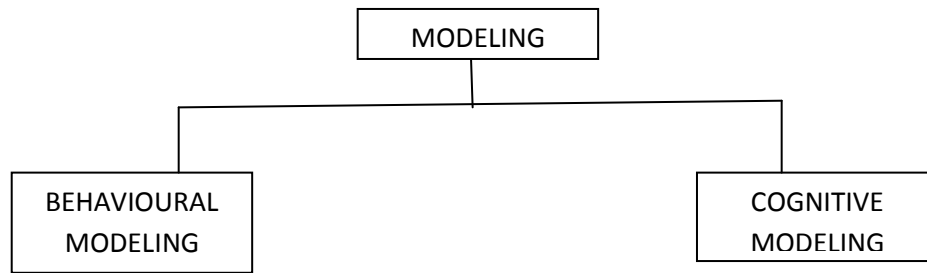
- Theory – based on observation.
- Scientific study – about how people learn.
- It is also known as formative assessment.
- Focuses on the process that the individual learner takes in the process of knowledge creation.
- Its purpose is to improve the quality of student learning.

Role of teacher in constructivist

To prompt & facilitate discussion. Guiding students by asking questions that will lead them to develop their own conclusions on the subject. Major role of teacher. Three major roles for facilitators to support students.

- Modeling.
- Coaching.
- Scaffolding.

➤ Modeling



- | | |
|---|--|
| 1. Overt performance. | 1. Covert cognitive processes. |
| 2. Perform activities identified in the activity structure. | 2. Articulates the reasoning that learners should use while engaged in the activities. |

➤ ***Coaching***

Complex & inexact.

Good motivate learners.

- Analyzes their performance.
- How to learn about how to perform.
- Provokes reflection & articulation of what was learned.
- Involves responses that are situated in the learner's task performance.

➤ ***Scaffolding***

Systematic approach to supporting the learner.

1. Focusing on the task.
2. The environment.
3. The teacher.
4. The learner.

Provide temporary framework to support learning & student performance beyond their capacities. Support for cognitive activity that is provided by an adult when the child & adult are performing the task together.

Purpose of assessment in a “Constructivist”

Constructivist:

- Encouraging students to use active techniques (experiments, real – world problem solving).
- The constructivist view of learning point towards a number of different teaching practices.
- Students in the constructivist classroom ideally become “Expert Learners” students learn “HOW TO LEARN”

Dimension of Learning

Dimension of learning is a comprehensive model that uses what researchers & theorists know about learning to define the learning process. Its premise is that five types of thinking

- what we call the five dimensions.
- essential to successful learning.

Framework of Dimension

The dimension framework will help to

1. Maintain a focus on learning.
2. Study the learning process.
3. Plan curriculum, instruction & assessment that takes into account the five critical aspects of learning.

Dimension of Learning

The types of thinking what we call the five dimension of learning which are essential to successful learning.

1. Attitudes & perceptions.
2. Acquire & integrate knowledge.

3. Extend & refine knowledge.
4. Use knowledge meaningfully.
5. Productive habits of mind.

Attitudes & Perceptions

Affect students ability to learn.

Examples:

“If students have negative attitudes about classroom task, they will probably put little effort into those tasks”.

Effective instruction, helps student to positive attitudes & perceptions about the classroom & about learning.

Acquire & Integrate Knowledge

Relating the new knowledge to already know.

Organizing that information & making it long – term memory.

Extend & Refine Knowledge

Learning does not stop with acquiring & integrating knowledge.

Learners develop in-depth understanding through the process of extending & refining their knowledge.

Common reasoning processes used to extend & refine their knowledge are the following.

- Comparing.
- Classifying.
- Abstracting.
- Inductive reasoning.
- Deductive reasoning.

Use Knowledge Meaningful

Effective learning occur when we use knowledge to perform meaningful tasks.

Example:

Learn about tennis racquets by talking to a friend or reading a magazine article about them. We really learn them & decide what kind of tennis racquet to buy.

In dimensions of learning model, there are six reasoning processes, constructed to encourage the meaningful use of knowledge.

- Decision making.
- Problem solving.
- Invention.
- Investigation.
- System analysis.
- Experimental analysis.

Productive Habits of Mind

Effective learners developed powerful habits of mind that enable them to

1. Critical Thinking.
2. Creative Thinking.
3. Self – Regulated Thinking.

Critical Thinking

Be accurate & seek accuracy.

Be clear & seek clarity.

Make an open mind.

Creative Thinking

Persevere.

Push the limits of your knowledge & abilities .

Generate, trust & maintain your own standards evaluation.

Self – Regulated Thinking

Monitor your own thinking.

Plan appropriately.

Identify & use necessary resources.

Benefits of Constructivism

- Children learn more & enjoy learning more when they are actively involved, rather than passive listeners.
- Concentrates on learning how to think & understand.
- Constructivist learning is transferable.
- Gives students ownership of what they learn, they learn more likely to retain & transfer the new knowledge to real life.

Assessment for Learning

- Enables teachers to use information about students knowledge, understanding & skills to inform their teaching.
- Teacher provide feedback to students about their learning & how to improve.
- Helps students know how to improve.
- Recognizes all educational achievement.
- Develops capacity for self & peer – assessment.
- Part of effective planning.
- Focuses on how students learn.
- Central to classroom practice.
- Key professional skill.

- Sensitive & constructive.
- Promotes understanding of goals/criteria.
- Fosters motivation.

Assessment As Learning

- Assess student's cognition about their learning.
- Students are actively involved in monitoring & assessing their learning.
- Teacher guide students in setting learning goals.
- Students assess their own learning.
- Improves student's learning & motivation.

Assessment of Learning

- Assess what students have learned.
- Students are not directly involved in the assessment process.
- Certify student's competence.
- Promote ranking or sorting of students.
- Reveal student's level of understanding.
- Teacher – assess student's learning.

Relative Merit & Demerits

S.No	Assessment for Learning	Assessment of Learning
1	Formative assessment	Summative assessment.
2	Focuses on the process	Focuses on the outcome.
3	Monitor student learning to provide on going feedbacks that can be used by	Provide teachers & students with information about the attainment of

	instructors to improve their teaching & by the students to improve their learning.	knowledge.
4	Helps to identify students strengths & weaknesses & target	The goal is to evaluate student learning at the end of an instructional unit by comparing against some sort of standard some or bench mark.
5	Help faculties recognize where students are struggling & address problems immediately.	Assess whether the results of the object being evaluated met the stated of goals.
6	Low – stakes – low or no point value.	High stakes or high point value

Assessment of different types of content

1. Achievement Assessment.
2. Performance Assessment.
3. Values Assessment.
4. Attitude Assessment.
5. Aptitude Assessment.

Achievement Assessment

An achievement test is a test of developed skill & knowledge. Teacher to measure whether the students have acquired the components concepts as on achievement.

Function:

Achievement has two main function.

1. Prognosis function.
2. Diagnosis function.

Prognosis Function

How much students acquire component of concepts?

Diagnosis function:

What are the causes of not acquiring components of concepts?

Learning outcomes:

Achievement tests measure the learning outcomes or educational outcomes classified in two forms.

1. The cognitive outcome of education.
2. The non- cognitive outcomes of education.

Cognitive Outcomes of Education

1. Knowledge.
2. Comprehension.
3. Application.
4. Analysis.
5. Synthesis.
6. Evaluation.

Non – cognitive outcomes of education

1. Flexibility in thinking.
2. Balance judgement.
3. Critical perception.
4. Educability.
5. Cultural awareness. etc

Performance Tests

Measures students skill based on authentic tasks such as activities, exercise or

problems that require students to show what they can do. Students demonstrate their understanding of a concept or topic by applying their knowledge to a particular situation.

Example:

Students might be given a current political map of India showing the names & locations of places & a similar map from 1945 & be asked to identify & explain difference & similarities.

Values Assessment

A high – stakes testing process known as value assessment. The analysis involves an examination of student scores over time, to provide an index of growth. Each students scores are compared to his or her previous scores. Knowledge of a students rate of growth is important in evaluating the achievement of individual students, as well as in summarizing the effectiveness of the instruction being delivered at the classroom, school building, district or state level.

Uses

Value assessment can be used to evaluate the effectiveness of instruction & high effective teachers.

Values assessment provide a more sensitive & descriptive picture of how schools or districts perform from year to year.

Provide the new dimension to the analysis of student test scores.

Attitude Assessment

Attitudes are internal systems, individual's external behaviour is generated by inner tendencies.

Measurement of attitudes it is necessary that the immediate circumstance be controlled.

Methods of Measuring Attitudes

The social psychology has evolved methods for the measurement of attitude.

1. Opinion scales.
2. Rating scales.
3. Indirect scales.

Opinion Scales

The opinions of individuals concerning different objects, problems & persons.

Forms of opinion scales:

- 1. Thurston scale construction method.***
- 2. Likert scale construction method.***
- 3. Cuttman scale construction methods.***

Rating scale

The attitude are evaluated not on the basis of the opinion of the subjects but on the basis of the opinions & judgement of the experimenter himself.

Means of collection data:

1. Non – Verbal Behaviour: Accepting or rejecting customs.
2. Verbal Behaviour: Expressing concurrence or objection.
3. Secondary Expressive: Facial expression etc.
4. Clinical type interview.
5. Personal documents: Autobiography, letters, diary etc.
6. Projective techniques: Ink blot test.

Types of Rating Scales

1. Rank order scale.
2. The percentage of population scale.
3. Indirect scales.

Aptitude Test

What is aptitude?

A natural disability to do something.

Aptitude Test:

Aptitude tests are used for guidance, as well as prediction of success in some occupation.

Important aptitude tests

1. Differential Aptitude Tests.
2. General Aptitude Tests.
3. Mechanical Aptitude Tests.

Differential Aptitude Tests

Measure an individual performance with regard to various aspects of Intelligence.

It is a battery of tests which consists of seven tests.

- | | |
|-----------------------------------|---------------|
| 1. Verbal Reasoning Test | – 30 Minutes. |
| 2. Numerical Ability Test | – 30 Minutes. |
| 3. Abstract Reasoning Test | – 30 Minutes. |
| 4. Space Relations Test | – 30 Minutes. |
| 5. Mechanical Reasoning Test | – 30 Minutes. |
| 6. Clerical Speed & Accuracy Test | – 6minutes. |
| 7. Language Spelling & Sentences | – 35 Minutes. |

General Aptitude Tests Battery (GATB)

Is used for vocational counselling, rehabilitation & occupational selection.

Battery of tests:

1. General learning ability.
2. Verbal aptitude.
3. Numerical aptitude.

4. Spatial aptitude.
5. form perception.
6. clerical perception.
7. motor co –ordination.
8. finger dexterity.
9. manual dexterity.

Types of Aptitudes Test

1. Mechanical aptitude test.
2. Motor dexterity tests.
3. Clerical aptitude tests.
4. Artistic tests.
5. Professional test etc.

Mechanical Aptitude Test

It consists of many test – perceptual speed, mechanical information, spatial visualization.

it is required in selection of many jobs & highly skilled jobs.

Important Mechanical Aptitude Test:

1. Minnesota mechanical assembly test.
2. Minnesota spatial relations.
3. Minnesota paper – form board.
4. Johnson “O” Cannon’s wiggly blocks

Assessment For Different Purposes

1. Placement
2. Diagnosis.
3. Grading

Placement Assessment

College & universities use to assess college readiness & place students into their initial classes.

Diagnostic Assessment:

Diagnostic assessment is a type of assessment which examines what a student knows & can do prior to a learning being implemented.

To diagnose strengths & areas of need in all students.

Grading Assessment

A grade is a teacher's standardized evaluation of a student's work.

Types of grading system:

1. Absolute grading systems.
2. Objective based grading.
3. Comparative grading methods.

Absolute Grading Systems

1. Fixed Percent Scale.
2. Total Point Method.
3. Content – Based Method.

Comparative Grading Methods:

1. Grading on the Curve.
2. Distribution Gap Method.
3. Standard Deviation Method.