

<b>Course-IX (1.2.9)</b>	<b>Assessment for Learning</b>
<b>1st Half</b>	<b>Assessment of the Learning Process</b>
<b>Unit I</b>	<b>Concept of Evaluation and Assessment</b>

### **Unit I Syllabus**

- + Meaning of Test, Measurement, Assessment and Evaluation
- + Distinguish among Measurement, Assessment and Evaluation
- + Nature and purpose of Evaluation

by

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- **Test:**

A test supposed to be able to measure learning outcome which distinguish the every single student's ability between students already mastered and not yet the learning material.

Example- General class test / examination, Psychological tests such as intelligence test, aptitude test etc.

## • **Measurement:**

### ○ Introduction:

- Assessing educational achievement.
- Helpful in modifying learning system.

### ○ Definition:

- J. P. Guilford—“Measurement means description of data in terms of numbers.”
- Bradfield and Murdock—“Measurement is the process of assigning symbols to dimension of phenomena in order to characterize the states of the phenomena as precisely as possible”

### ○ Scales of Measurement:

Properties: i. Identify—Unique meaning.

ii. Magnitude—Ordered Relationship.

iii. Equal Interval—Equal to one another.

iv. Absolute zero—True zero point.

(A) Nominal Scale—Number or Symbol to classify objects.

❖ Example- Gender: Male, Female

(B) Ordinal Scale—Both identify & magnitude.

❖ Example- Rank of horse in race. (Cannot say about close race)

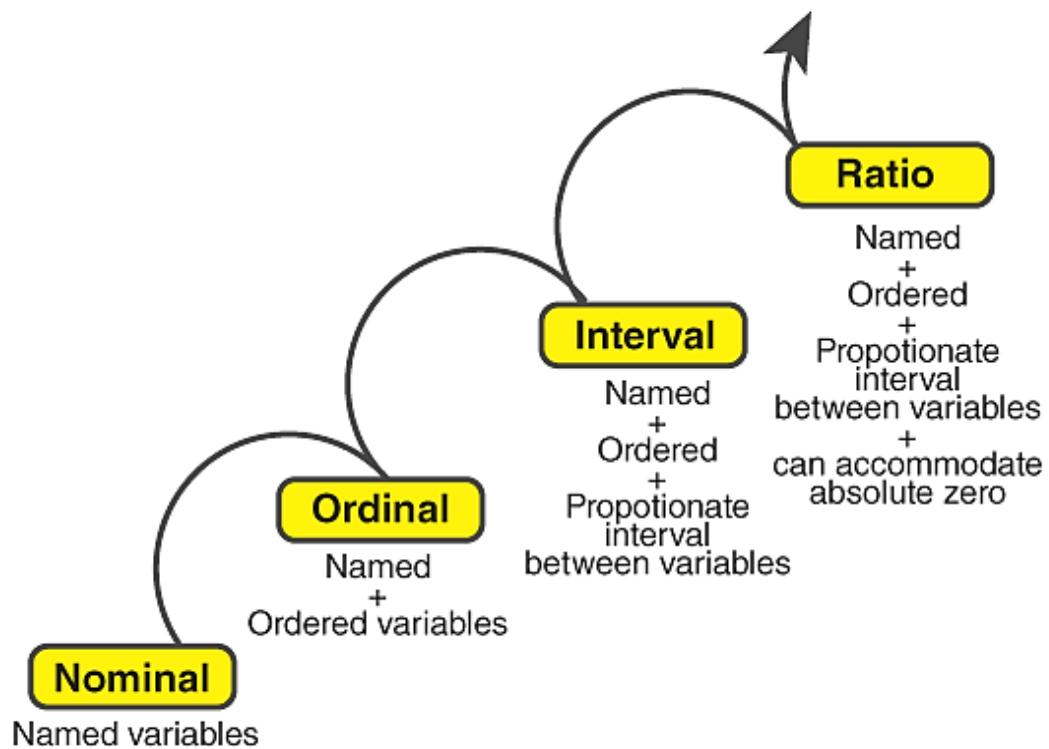
(C) Interval Scale—Identify, magnitude & equal interval.

❖ Example- Fahrenheit Scale temperature 50—60=60—70  
(Cannot say about how much hot?)

(D) Ratio Scale—Identify, magnitude, equal interval & absolute zero.

❖ Example- Weight of object. (Cannot have negative value)

# LEVELS OF MEASUREMENT



Measurement Scale	Definition	Examples	Measure of Center	Measure of Spread
Nominal	Unordered categories	Ethnicity, gender, injury status	Mode	Number of categories containing values
Ordinal	Ordered categories	Manual muscle test grades, reflex grades	Median	Interquartile range
Interval	Equal intervals between scores but no true zero	Temperature, time on a 12-h clock, GRE score	Mean <sup>a</sup>	Standard deviation <sup>a</sup>
Ratio	Equal intervals between scores and true zero	Body weight, blood pressure	Mean <sup>a</sup>	Standard deviation <sup>a</sup>

*Abbreviation:* GRE, graduate record examination.

<sup>a</sup> In cases of data not normally distributed or influential outliers, the median and interquartile range are more appropriate.

## ● **Evaluation:**

### ○ Introduction:

- Real scientific concept
- More comprehensive

### ○ Concept:

- To know achievement of teaching objectives.
- NCERT—“Concept of Evaluation”—
  - i. To what extent we have obtained our aims?
  - ii. How effective the classroom instructions are?
  - iii. How efficiently educational aims are fulfilled?

Teaching is the mirror of the needs of teaching objectives.

### ○ Definition:

Bradfield and Murdock—“Evaluation is the assignment of symbols to phenomena in order to characterize the worth or value of a phenomena, usually with reference to some social, cultural or scientific standard.”

### ○ Types:

- i. Formative—Making decisions relating to forming or development of students as well of courses.
- ii. Summative—End of instructional segment. Determination of learning sufficiently completed.
- iii. Diagnostic—Identifying defects of learner.
- iv. Prognostic—About future prediction

○ Principles of Evaluation:

- i. Selection of apparatus according to aim.
- ii. Evaluation should be according to aim.
- iii. Different means adopted.
- iv. Evaluator—complete knowledge of tools utility.
- v. Evaluation—not as an end itself, higher aims.

○ Nature of Evaluation:

- i. The final judgement taken on the basis of assessment in a teaching-learning process is called evaluation.
- ii. The concept of Evaluation is broad.
- iii. Evaluation deals with the final task of determining competency among learners.
- iv. Evaluation is a continuous process.
- v. Observation plays an important role in the process of Evaluation.
- vi. Along with intellectual development, it deals with physical, mental, social, emotional and all-round development of learners.

○ Need / Purpose of Evaluation:

- i. Diagnosis
- ii. Prediction
- iii. Selection / Identify
- iv. Guidance
- v. Classification
- vi. Comparison
- vii. Improving classroom instruction

- Relationship:
  - Evaluation $\leftrightarrow$ Measurement + Judgement
- Difference between Measurement and Evaluation

Sl.	Measurement	Evaluation
1	Numerical representation	Measurement with magnitude
2	Quantity based	Quality based
3	Limited scope	Widen scope
4	Present scale determination	Present with future progress
5	Not continue, Ending	Life long process, Ends in itself
6	Part of evaluation	Without measurement-impossible
7	Objective	Subjective
8	Scientific	Psychological
9	Narrower concept	Broad concept
10	Formal	Informal
11	Restricted	Comprehensive
12	Symbols are assigned to quantify data	Symbols are assigned to value of something
13	Good or bad?	How much?
14	Instrument	Preposition
15	Proofs	Analysis
16	Organ	System
17	No comparison	Comparative
18	Curriculum based	Objectivity based
19	Less time and labour	More time needed and Laborious
20	No clear view about student	Clear conception about student
21	Prediction impossible	Easily predictable

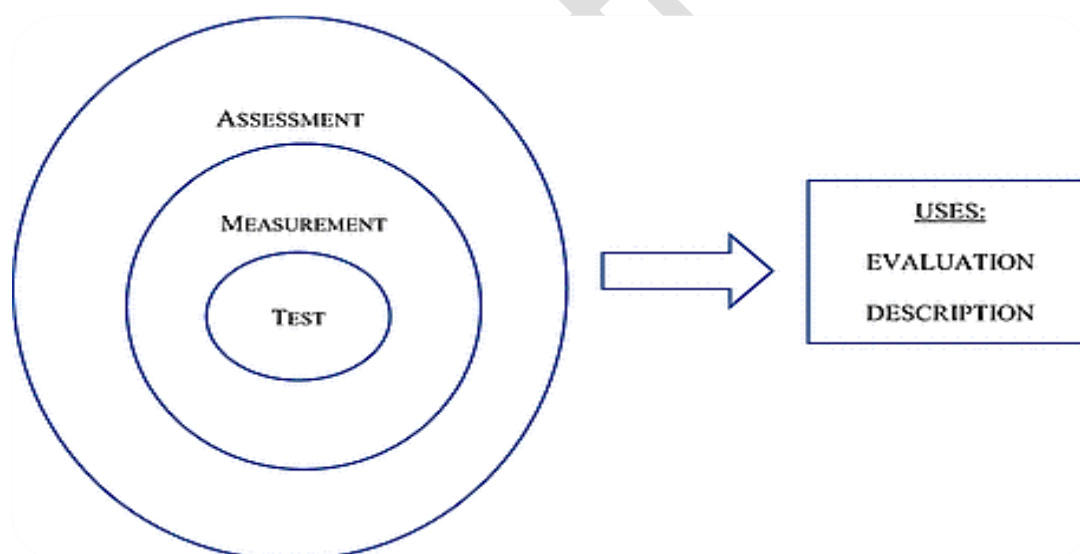
- **Assessment:**

- Definition: Assessment is the systematic collection of data to monitor the success of a program or course in achieving intended learning outcomes for students.
- Concept:
  - Assessment is used to determine:
    - i. What students have learned (outcome)
    - ii. The way they learned the material (process)
    - iii. Their approach to learning before, during, or after the program or course
  - Teachers can assess students before instruction to get a baseline of what students know (for example, by administering a pre-test).
  - During instruction, assessment can be used to determine what students are learning so Teachers can adjust their teaching, if need.
- Purpose:
  - After instruction, teachers can use assessment for two purposes:
    - i. To determine if there has been a change in knowledge (final examinations can be used for “summative assessment”);
    - ii. To provide teachers with the information to revise the class or program.

- Difference between Assessment and Evaluation:

Sl.	Dimension	Assessment	Evaluation
1	Content	Formative	Summative
2	Timing	Ongoing	Final
3	Primary Purpose	To improve learning	To gauge quality
4	Orientation	Process-oriented	Product-oriented
5	Focus of measurement	How learning is going	What's been learned
6	Findings	Diagnostic	Judgemental
7	Uses thereof	Identify areas for improvement	Arrive at an overall grade/score

- Inter-relationship—Test—Measurement—Assessment—Evaluation :



- ✓ **Measurement-** This is the process in which attributes of the students in the class are determined.
- ✓ **Assessment** -It is the entire process of describing, collecting, recording, scoring and interpreting all information about the students.
- ✓ **Evaluation-** It refers to the process of making a judgement to the students according certain provided criteria or against certain standard requirements.