

ASSESSMENT FOR LEARNING

Unit 1: Basics of Educational Testing, Measurement, Assessment and Evaluation

Meaning of Testing, Measurement, Concept of Assessment and Evaluation in Education – Steps of evaluation process – Characteristics of the evaluation - comprehensive and continuous – Formative and summative evaluation – Norm reference & criterion reference tests – Uses of evaluation

TESTING

Meaning

TESTING is a technique of obtaining information needed for evaluation purposes. Tests, Quizzes, measuring instruments – are devices used to obtain such information.

Purposes of Testing

Tests serve a variety of functions. Accordingly test results may be utilized for various purpose such as

- (1) assessment of the present status of an individual on a particular trait or variable
- (2) expressing the probability of future success;
- (3) diagnosing the causes of lack of expected performance and suggesting remedial measures;
- (4) providing academic and vocational guidance;
- (5) classification i.e.. comparing and categorising individuals or groups of individuals;
- (6) undertaking research to answer various questions; and
- (7) formulating generalisations and policy decisions.

Findley (1963) has classified the purposes of testing into three major inter-related categories: (A) instructional, (B) administrative. and (C) guidance.

TEST

Meaning

Test is most commonly used method of making measurements in education. It is also an instrument or systematic procedures for measuring sample of behavior by posing a set of questions in a uniform manner. Designed to measure any quality, ability, skill or knowledge. There is right or wrong answer

Definition of Test

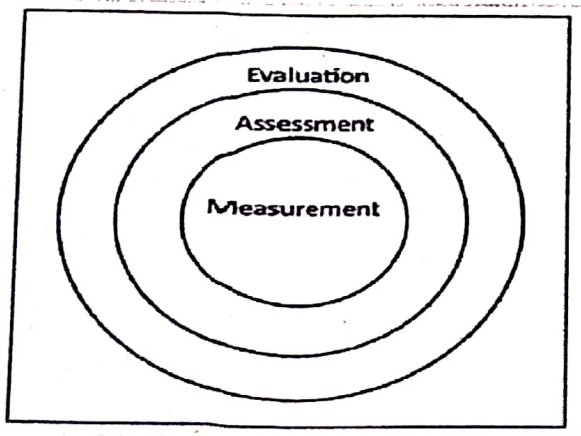
- The test is a procedure used in the measurement and assessment framework. (Sudjiono,2003)
- The test is one of the evaluation procedures are comprehensive, systematic and objective results can be used as a basis for decision making. (Djali and Pudji Mulyono , 2007)

MEASUREMENT

Meaning

It is mainly concerned with collection or gathering of data e.g. students' scores in an examination. It is an act or process of measuring physical properties of objects such as length and mass. Similarly, in behavioural sciences, it is concerned with measurement of psychological characteristics such as neuroticism, and attitudes towards various phenomena. The measurement involves assigning a score on a given task performed by the learner e.g., 33/50 i.e., thirty three out of fifty.

Thus, we find that evaluation involves assessment and measurement. It is a wider and more inclusive term than assessment and measurement. It can be represented as:



Definition of Measurement

- Mostly, measurement related by quantitative problem to get information measured. (Dirman,2014).
- Measurement is a process of data collection through empirical observation to gather information relevant to the intended purpose (Cangelosi, 1995).

- Measure essentially is to compare something with or on the basis of a certain size.(Sudjiono, 2003)
- Measurement is an activity to compare the observations with a criterion or measure(Permendikbud 2014).

Example for Measurement

Of the 100 items proposed in the test, Ahmad answered exactly as many as 80 items.

“Measurement is quantitative”

So, it can be concluded that the measurement is the process of giving a number (score) of the learning process and results based on certain criteria or size that is clear and in accordance with the objectives set in order to give judgment , which is a decision on the process and learning outcomes

CONCEPT OF ASSESSMENT

Meaning

By assessment, we mean the processes and instruments that are designed to measure the learner's achievement, when learners are engaged in an instructional programme of one sort or another. It is concerned with ascertaining the extent to which the objectives of the programme have been met. The term assessment is often used interchangeably with the terms evaluation and measurement. However, assessment has a narrower meaning than evaluation but a broader meaning than measurement. In its derivation, the word assess means 'to sit beside- or "to assist the judge"'. It, therefore, stems appropriate in evaluation studies to limit the term assessment to the process of gathering the data and fashioning them into an interpretable form; judgement can then be made on the basis of this assessment. Let us take an example of testing of school children by Secondary Board Tests are administered in reading, writing, science and other academic areas. Based on the information provided by the Secondary Board, educators, citizens and political leaders then make Judgements about the effectiveness of the education system. Assessment then, as we define it, precedes the final decision making stage in evaluation e.g. the decision to continue, modify, or terminate an educational programme.

Definition of Assessment

- Assessment is the process of collecting information / evidence through measurements, interpret, describe, and interpret the evidence of measurement. (Permendikbud 2014).
- Assessment is a process for making decisions using information obtained through measurement (Siregar dan Nara, 2010)

Example For Assessment

Of the 100 items to 80 items answered it correctly by Ahmad.

Thus, it can be determined that Ahmad including smart kids.

“Assessment is qualitative”

Assessment means the process of interpreting the data presented to the process and learning outcomes in the form of a score by converting it into a value based on a specific procedure through measurement.

EVALUATION IN EDUCATION

History of evaluation

- ⊙ Chester w. Harris (1960) traces the history of the concept of the evaluation to the thirties of the twentieth century. It emerged as a “reaction against the relatively narrow information – and skill –centered educational measurement of the previous decade”. A strong movement developed under the leadership of Alvin c. Eurich, Ralph w. Tyler and j. wayne wrightson to broaden the various area of appraisal – attitude, interest, idea, way of thinking, work habit and personal and social responsibility.
- ⊙ The American council on education made large scale cooperative effects to improve evaluation procedures in the post war era.
- ⊙ Tyler's contribution was his insistence of defining the goals and objectives in behavioral term and making them the basis of instrument developing in education and evaluation.
- ⊙ In India, the work related to evaluation began in the 1960's.

ming of evaluation
Evaluator
of test

Meaning of evaluation

Evaluation means to ascertain the growth and changes, taking place in pupils as a result of teaching learning experiences. To evaluate means to characterize the work or value of something. It is a method of determining the extent to which established goals or objectives have been achieved. It is a "process of making an overlay of the outcomes as an educative experience against the background of anticipated or stated objectives". It is not restricted to the result of tests and examination or the teachers' estimate but includes the learners' own estimates of his own ability.

Definitions of evaluation

- ⊙ Ralph Tyler:-" Evaluation is the process of determining to what extent the educational objectives are being realized".
- ⊙ James M. Lee:- "Evaluation is the appraisal of pupil's progress in attaining the educational goals set by the school, the class and himself. The chief purpose of evaluation is to guide and further the students learning. Evaluation is thus a positive rather than a negative process".
- ⊙ Evaluation is the process of taking decisions based on assessment results (Permendikbud 2014).
- ⊙ According to Suharsimi Arikunto (2004) Evaluation is an activity to gather information about the workings of something, which then the information is used to determine an appropriate alternative in making decisions.

According to Edwin Wandt and Gerald W. Brown (1977) *Evaluation refers to the act or process to determining the value of something*

DIFFERENCE BETWEEN MEASUREMENT AND EVALUATION

| MEASUREMENT | EVALUATION |
|---|---|
| It focuses only on single aspects of subject matter achievement | It emphasizes all aspects of pupil growth |
| It is means to an end. Main function is | It is an end itself. Main function is the |

| | |
|--|--|
| collection of evidence | appraisal of the value of the evidences. |
| It may not be an essential part of instruction | It is an integral part of instruction |
| It may be done off and on | It has to be done continuously |
| Measurement stops at the assignment of numbers | It goes further much further and passes value judgement on measurement |
| It is limited to quantitative description of pupil behaviour | It includes quantitative and qualitative descriptions plus value judgement |
| It is necessary condition for evaluation | It is inclusive of the term measurement |

STEPS OF EVALUATION PROCESS (OR) VARIOUS STEPS INVOLVED IN EVALUATION

To understand the relation among the four aspects of evaluation – viz., objectives, content (subject matter), learning activities and evaluation procedures – it is necessary to study the various steps involved in the process of evaluation. These are

(i) Identifying and Defining General Objectives:

The first step is to determine what to evaluate, i.e., to set down educational objectives. What kind of abilities and skills should be developed when a pupil studies, say, Geography, for one year? What type of understanding should be developed in the pupil who learn his mother tongue? Unless the teacher identifies and states the objectives, these questions will remain unanswered.

The process of identifying and defining educational objectives is a complex one; and there is no simple or single procedure which suits all teachers. Some prefer to begin with the course content, some with general aims, and some with lists of objectives suggested by curriculum experts in the area. The point of orientation, then, is the pupil and what he is like at the end of the teaching-learning process. While stating the objectives, therefore, we can successfully focus our attention on the product i.e., the pupil's behaviour —at the end of a course of study and state it in terms of his knowledge, understanding, skill, application, attitudes, interests, appreciation, etc.

For example, a Mathematics teacher, for the unit of "Triangle" identifies and states the following objectives:

1. The pupil acquires knowledge of the various terms used in regard to triangle, its types and properties.
2. The pupil understands how a triangle is defined by the use of set language, how triangles are classified into various types and the properties of different types of triangles.
3. The pupil develops skill in drawing a triangle if the necessary data are given.
4. The pupil applies the acquired understanding of triangles, their types and properties to the solution of riders based on them.

(ii) Identifying and Defining Specific Objectives:

It has been said that learning is a modification of behaviour in a desirable direction. The teacher is more concerned with a student's learning than with anything else. Changes in behaviour are an indication of learning. These changes, arising out of classroom instruction, are known as the learning outcome. What type of learning outcome is expected from a student after he has undergone the teaching-learning process is the first and foremost concern of the teacher. This is possible only when the teacher identifies and defines the objectives in terms of behavioural changes, i.e., learning outcomes.

For example, before providing learning activities, a Mathematics teacher for the unit of "Triangle." identifies and defines the following specific objectives:.

1. The pupil recognises the triangle or its types from the given figures.
2. The pupil recalls the terms such as triangle, obtuse triangle, etc.
3. The pupil defines 'triangle'.
4. The pupil compares the properties of different types of triangles.
5. The pupil draws a triangle if the measures of its two sides and an included angle are given.

These specific objectives will provide direction to teaching-learning process. Not only that but it will also be useful in planning and organising the learning activities, and in planning and organising evaluation procedures too.

Thus specific objectives determine two things: one, the various types of learning situations to be provided by the class teacher to his pupils and second, the method to be employed to evaluate both — the objectives and the learning experiences

(iii) Selecting Teaching Points

The third step in the process of evaluation is to select teaching points through which the objectives can be realized. Once the objectives are set up, the next step is to decide the content (curriculum, syllabus, course) to help in the realisation of objectives.

It is the job of philosophers and educationists to decide the objectives and to frame the content accordingly, i.e., curriculum, syllabus and course. For the teachers, the objectives and courses of school subjects are ready at hand. His job is:

(a) to analyse the content of the subject-matter into teaching points.

(b) to find out what specific objectives can be adequately realised through the introduction of those teaching points. Thus, for the teacher, the content analysis is the first step, while the second is to fix the specific objectives to be realised. While analysing the content, he has to keep in mind the objectives to be realised. At every moment, he has to bear both in mind the objectives as well as the content.

(iv) Planning Suitable Learning Activities:

Up till now, the process of relating objectives on the one hand and content (teaching points) on the other has been somewhat rather easy. In the fourth step, the process becomes complex. Here, the teacher will have to plan the learning activities to be provided to the pupils and, at the same time, bear two things in mind — objectives as well as teaching points. The process then becomes three-dimensional, the three co-ordinates being objectives, teaching points and learning activities. The teacher gets the objectives and content readymade. He is completely free to select the type of learning activities he would like to provide to his pupils so that the objectives may be substantially, if not completely, attained. He may employ the analytical-

Not only the analytic method, he employ the lecture method or a demonstration

only
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synthetic method; he may utilise inductive-deductive reasoning; he may employ the experimental method or a demonstration method; or he may put a pupil in the position of a discoverer; he may employ the lecture method, or he may ask the pupils to divide into groups and to do a sort of group work followed by a general discussion; he may set an individual task, or he may organise educational visits; and so on. He may ask students to use the text book or a reference book; or he may employ audio-visual instructional aids. One thing he has to remember is that he should select only such activities as will make it possible for him to realise his objectives. Learning activities, moreover, help him to determine the evaluation procedures to be used in future.

(v) Evaluating:

Here, the teacher observes and measures the changes in the behaviour of his pupils through testing. This step adds one more dimension to the evaluation process. While testing, he will keep in mind three things — objectives, teaching points and learning activities; but his focus will be on the attainment of objectives. This he cannot do without enlisting the teaching points and planning learning activities of his pupils. Learning activities provided by the teacher result in the learning experiences of the students. Here the teacher will construct a test by making the maximum use of the teaching points already introduced in the class and the learning experiences already acquired by his pupils. He may plan for an oral test or a written one; he may administer an essay type test or an objective type of test; or he may arrange a practical test. In any case, he will select the test through which he can best evaluate the objectives, the teaching points and the learning experiences of his students.

(vi) Using the Results as Feedback:

The last, but not the least, important step in the evaluation process is the use of results as feedback. If the teacher, after testing his pupils, finds that the objectives have not been realised to a great extent, he will use the results in reconsidering the objectives and in reorganizing the learning activities. He will retrace his steps to find out the drawbacks in the objectives or in the learning activities he has provided for his students. This is known as feedback. Whatever results the teacher gets after testing his pupils should be utilized for the betterment of the students.

The results of our evaluation provide feedback on the effectiveness of learning experiences and ultimately on the attainability of the objectives themselves for each student.

ROLE OF EVALUATION

Evaluation plays an enormous role in the teaching-learning process. In learning, it contributes to formulation of objectives, designing of learning experiences and assessment of learner performance. Besides this, it is very useful to bring improvement in teaching and curriculum.

It provides accountability to the society, parents, and to the education system. Let us discuss its uses briefly.

i) Teaching: Evaluation is concerned with assessing the effectiveness of teaching, teaching strategies, methods and techniques. It provides feedback to the teachers about their teaching and the learners about their learning.

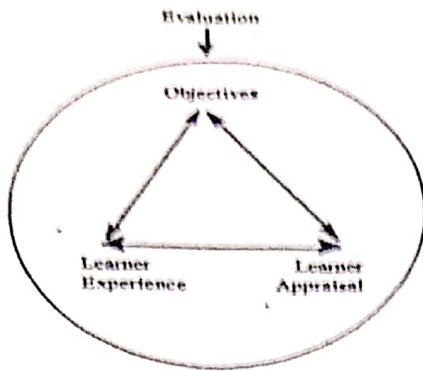
ii) Curriculum: The improvement in courses curricula, texts and teaching materials is brought about with the help of evaluation.

iii) Society: Evaluation provides accountability to society in terms of the demands and requirements of the employment market.

iv) Parents: Evaluation mainly manifests itself in a perceived need for regular reporting to parents.

In brief, evaluation is a very important requirement for the education system. It fulfills various purposes in systems of education like quality control in education, selection entrance to a higher grade or tertiary level. It also helps one to take decisions about success in specific future activities and provides guidance to further studies and occupation. Some of the educationists view evaluation virtually synonymous with what was previously defined as learner appraisal, but evaluation has an expanded role. It plays an effective role in questioning or challenging the objectives. This does not mean that one can loosely criticize programme objectives. One should question or challenge programme objectives only after careful study of the relationship between a programme's objectives and the need for which the programme was designed.

Evaluation helps a lot in the design and modification of learning experiences on the basis of feedback received by learner appraisal. A simple representation explaining the role of evaluation in the teaching-learning process is shown below:



Evaluation has as its province four different aspects namely,

- i) objectives,
- ii) learning experiences,
- iii) learner appraisal
- iv) relationship between the three.

NEED AND IMPORTANCE OF EVALUATION

Evaluation is inevitable in teaching-learning process. It is as inevitable in classroom teaching as it is in all fields of activity when judgements need to be made, however simple or complex consideration invoked. All of us well know, that during the course of a school day, teachers, principals and other school personnel make many decisions about students and help them to make many decisions for themselves. Effective decision making process involves evaluation. For example, the division of students into various categories, or ranks within the total group, involves measurement of their achievement and interpretation of these. The need of evaluation is so intrinsic to the teaching-learning situation that even hasty considerations seem to indicate the advantages of a systematic use of planned evaluation. Evaluation helps teachers to make better evaluative judgements. All of us are aware that we carry out activities in various aspects of teaching-learning process like

- a) fulfil classroom objectives
- b) diagnose learning difficulties of students
- c) determine readiness for new learning experiences
- d) form students' classroom groups for special activities
- e) assist students in their problems of adjustment
- f) prepare reports of pupils' progress.

SCOPE OF EVALUATION

- Value judgment

- Ascertaining the extent to which the educational objectives have been attained
- Effectiveness of appraisal or methods of instruction
- Identifies pupil's strengths and weakness, difficulties and problems, needs and demands
- Provide baseline for guidance and counseling
- Placements and promotions in jobs
- Development of attitudes, interests, capabilities, creativity, originality, knowledge and skills etc.
- Development of tools and techniques
- Development of curriculum and for its revision
- Interpretation of results
- Helpful for curriculum planners and administrators to improve the curriculum pattern

CHARACTERISTICS OF THE EVALUATION

Validity: A valid evaluation is one which actually tests what is sets out to test i.e., one which actually measures that behaviour described by the objective(s), under scrutiny. Obviously, no one would deliberately. Construct an evaluation item to test irrelevant material but very often non-valid test items are in fact used e.g., questions that are intended to test recall of factual material but which actually test the candidate's powers of reasoning, or questions which assume a level of pre-knowledge that the candidates do not necessarily possess.

Reliability: The reliability is a measure of the consistency with which the question, test or examination produces the same result under different but comparable conditions. A reliable evaluation item gives reproducible scores with similar populations of students. It is therefore, independent of the characteristics of individual evaluations. In order to maintain reliability, an evaluative question should test only one thing at a time and give the candidates no other option. The evaluation should also adequately reflect the objectives of the teaching unit.

Practicability: Evaluation procedure should be realistic, practical and efficient in terms of their cost, time taken and ease of application. It may be an ideal procedure of evaluation but may not be put into practice,

Fairness: Evaluation must be fair to all students. This can be possible by accurate reflecting of range of expected behaviours as desired by the course objectives. To keep fairness in evaluation, it is also desired that students should know exactly how they are to be evaluated. This means that students should be provided information about evaluation such as nature of the materials on which they are to be examined (i.e., Context and Objectives), the form and structure of the examination, length of the examination and the value (in terms of marks) of each component of the course.

Usefulness: Evaluation should also be useful for students. Feedback from evaluation must be made available to the students and weakness. By knowing their strength and weakness, Students can think of further improvement. Evaluation should suggest all the needful requirements for their improvement.

Interpretation of Results: Another factor which must be considered in the choice of a test is the ease of interpretation of test results. A test score is not meaningful unless the teacher or counselor is able to decide what significance or importance should be attached to it and to make some judgment concerning its relationship to other kind of information about the student. Nearly all test publishers produce manuals designed to aid the teacher in interpreting test results.

But these manuals vary greatly on quality and in the thoroughness with which they do this importance job. From the point of view of the teacher, principal, or counselor, the quality of the test manual should be just as important a factor in the choice of a test as the quality of the test itself.

USES OF EVALUATION ((purposes/uses/advantages/merit))

- To discover the extend of competence
- To predict the educational practices
- To certify student's degree, proficiency in a particular educational practice
- To appraise the status of and changes in student's behavior

- To make provision for guiding the growth of the individual student
- To diagnose the individual students educational weakness and strength
- To assess the student's progress from time to time and discloses student's needs and possibilities
- To predict the student's future academic success or otherwise
- To provide basis for modification of curriculum and courses
- To locate areas where remedial measures are needed
- To provide basis for the introduction of experiences to meet the needs of individuals and group of students
- Motivate students towards better attainment and growth
- Test the efficiency of teachers
- Appraise the teachers and supervisors competence
- Improve instructions, measurements and measuring devices
- Bring out the inherent capabilities of a student, such as attitudes, habits, appreciation and understanding, manipulative skills in addition to conventional acquisition of knowledge
- Serves as method of self improvement, improving school learning relations and as a guiding principles for the selection of supervisory techniques

TYPES OF EVALUATION

- *Continuous and comprehensive evaluation*
- *Formative and summative evaluation*
- *Norm reference & criterion reference tests*
- *Internal evaluation vs External evaluation*

CONTINUOUS AND COMPREHENSIVE EVALUATION

CCE involves a system of school based evaluation for the all-round development of students.

It also means regularity of assessment, frequency of unit testing & feedback of evidence to teachers & students for self evaluation.

It recognises both Scholastic & Co-Scholastic aspects of the child.

This content refers to a system of school – based evaluation of student that covers all aspect of students development. As the nomenclature also suggests, this new pattern in evaluation is not one, two, three times a year but continuous one. It is a developmental process of assessment which emphasizes on two fold objectives and these objectives are continuity in evaluation and assessment of abroad based learning and behavioural outcomes on the other.

It is a total teaching-learning process and spread over the entire span of academic session. It means regularity of assessment, frequency of unit testing, diagnosis of learning gaps, use of corrective measures, refreshing and feed back to evidence to teacher and students for their self evaluation.

Second term comprehensive that the scheme attempt to cover both the scholastic and the co-scholastic aspects of students growth and development, CCE therefore a paradigm shift in evaluation, shifting the focus from testing to holistic learning. It aims to create good citizens possessing sound health, appropriate skills and desirable qualities besides academic excellence.

Aims of CCE

- To help develop cognitive, psychomotor and affective skills
- To lay emphasis on thought process and de-emphasize memorization.
- To make evaluation an integral part of teacher learning process.
- To use evaluation for improvement of students achievement and teaching learning strategies on the basis of regular diagnosis followed by remedial instruction.
- To use evaluation as a quality control device to maintain desired standard of performance.
- To determine social utility, desirability or effectiveness of a programme and take appropriate decisions about the learning, the process of learning and learning environment.

- To make the process of teaching and learning a learner-centred activity.

Objectives Of CCE

- Developing the cognitive, psychomotor & affective skills.
- Evaluation can be an integral part of Teaching –Learning Process.
- Teaching –Learning Process can be Learner centred

Important Functions of Continuous and Comprehensive Evaluation

Important functions of continuous and comprehensive evaluation are as follows –

- Continuous evaluation helps in regular assessment to the extent and degree of students progress (ability and achievement with reference to specific scholastic and non-scholastic areas).
- Continuous evaluation serves to diagnose weakness and permit the teacher to ascertain an individual pupil's strengths and weakness and his needs. It provides immediate feedback to the teacher, who can then decide whether a particular unit or concept needs re-teaching into the whole class or whether a few individuals are in need of remedial instruction.
- It helps the teacher to organize effective teaching strategies,
- Mainly times, because of some personal reasons, family problems or adjustment problems, the children start neglecting their studies, resulting in a sudden fall in their achievement.
- If the teacher, child and parents do not come to know about this sudden fall in the achievement and the neglect of studies by the child continues for a longer period then it will result in poor achievement and a permanent deficiency in learning for the child.
- The continuous evaluation helps in bringing awareness of the achievement to the child, teachers and parents from time-to-time. They can look into the probable cause of the fall in achievement, if any, and may take remedial measures in time, to help the child overcome it at their own level.
- By Continuous evaluation, children can know their strength and weakness. It provides the child a realistic self-picture of how he and she studies. It can motivate children to develop good study habits, to correct errors, and to direct their activities towards the achievement.

of desired goals. It helps an individual to determine the areas of instruction in which more emphasis is required.

- Continuous and comprehensive evaluation ascertains areas of aptitude and interest. It helps in identifying changes in attitude, character and value pattern.
- It helps in making decisions for the future, regarding choice of subjects, courses and careers.
- It provides information/report on the progress of students in scholastic and non-scholastic areas and thus help in predicting the future successes of the learner.

FORMATIVE AND SUMMATIVE EVALUATION

FORMATIVE EVALUATION

The term 'formative evaluation' denotes the on-going of systematic assessment of learners achievement while the term, course or instructional programme is in progress.

In teaching and instruction the whole content is presented in parts, in small units. Hence, the learner should be given test at the end of each unit so that learner's strength and weaknesses can be diagnosed. Diagnosis can be followed by remedial teaching. Then formative test is given. In formative test the difficulties of learner's learning are important.

Formative evaluation is the assessment made during the instructional phase to let the teacher know about learner's progress in learning and what more is to be done.

The daily interaction between teachers and learners should result in the learners having fairly good knowledge about the quality of their achievements, necessary for immediate decision-making.

Of course, this depends upon the teacher's skill in daily feedback. Effective feedback depends upon:

- Determining upon what a learner needs to know to facilitate further learning;
- Gathering accurate data; and
- Presenting these data to the student in a fashion he will comprehend.

Purposes of Formative Evaluation

Some of the purposes served by formative evaluation are as under:

- ✓ Feedback to the students, not the assignment of a grade, should be the purpose of making a formative evaluation of affective objectives.
- ✓ The gathering of data during the time of programme (curriculum evaluation, preparing unit plan, writing items, classroom testing, etc.) is being developed for the purpose of guiding the developmental process in formative evaluation.
- ✓ Formative evaluation is designed to provide the teacher with continuous and immediate feedback so that he can modify instruction, govern his instructional strategy and prescribe group and individual remedial work.
- ✓ Formative evaluation is designed to provide the learner with continuous and immediate feedback so that he can get reinforcement in successful learning and can identify the learning errors that need correction.

Characteristics of Formative Evaluation

The following are the major characteristics of formative evaluation:

- It relatively focuses on molecular analysis of instructional material for mapping the hierarchical structure of the learning tasks and actual teaching for a certain period.
- It is cause-seeking. It seeks to identify influential variables,
- Its design is exploratory and quite flexible.
- It monitors teaching-learning strategy during instruction.

Advantages of Formative Evaluation

Following are the chief advantages of formative evaluation:

- ❖ Formative evaluation is concerned with judgements made during the design and development of an instructional programme. These judgements help in forming, modifying and improving the programme before it is completed. The instructional programme also aims at the attainment of certain objectives during the implementation of the programme.
- ❖ In formative evaluation, teachers test more frequently from that helps in determining whether learning has taken place as planned.

- ❖ A person who is continually evaluating his programme will find many things that can be changed for the better during the operation of the programme. Most educators would feel it unprofessional not to make these improvements even though they may upset the research design.
- ❖ Formative evaluation (informing and feedbacking learners of their progress during the instruction) is most helpful for the immediate decision-making that learners face.
- ❖ It makes teaching more effective. As a result, it helps current learners to learn more effectively.
- ❖ In formative evaluation, more emphasis is on the achievement rather than objectives.
- ❖ It also provides ample opportunities to learners to have mastery in content.

SUMMATIVE EVALUATION

The term 'summative evaluation' refers to assigning a grade for learners' achievement at the end of term, semester, course or instructional programme. Making overall assessment or decision with the programme is a summative evaluation. There should be some instructional programme for the attainment of some objectives before the summative evaluation takes place. Summative test is given to the learner after he has passed successfully all the formative tests.

Purposes of Summative Evaluation

- ❖ Pupils cannot easily combine all the daily feedback provided and obtain an overall picture of how they are doing. The summative evaluation can provide such overall picture.
- ❖ From the summative test, the general level of the learner is judged. On the basis of learner's performance, the effectiveness of teaching and instruction is evaluated.
- ❖ Summative evaluation serves the purposes of assigning grades or certifying learner's mastery of the intended learning outcomes.

Chief characteristics of summative evaluation

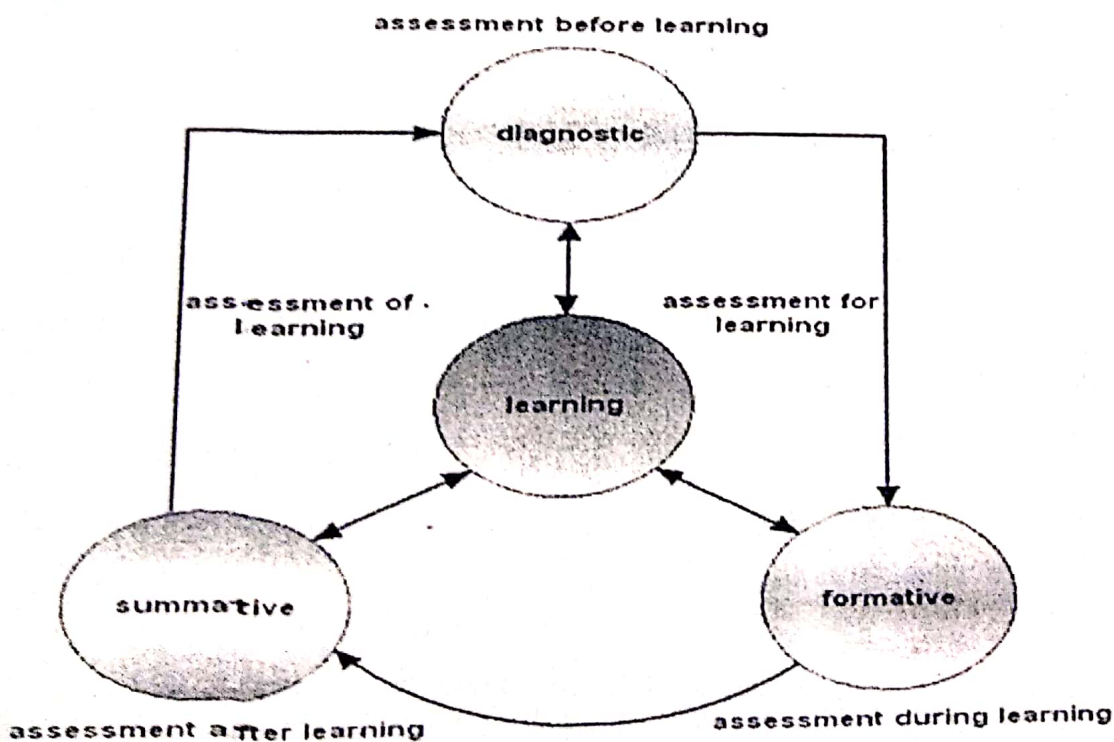
- ❖ It is concerned with a) broad range of issues; b) judgements about the merits of an already completed programme, procedure or product.
- ❖ It comes at the end of a course or unit of instruction. its duration may vary from a semester to whole year.

- ❖ It is the terminal assessment of the learner's performance at the end of instruction.
- ❖ Summative evaluation determines (a) the extent to which the objectives have been achieved; (b) whether learning is sufficiently complete so that the learner may qualify himself for the next unit of instruction.
- ❖ Summative evaluation provides (a) descriptive analysis; (b) evidence that the programme is satisfactory and a new programme for the learner is needed; (c) feedback to the classroom teacher for the success or failure of the programme of instruction.
- ❖ It measures the extent to which the learner has attained the desired outcomes.
- ❖ It is almost unobstructive and non-reactive.

Advantages of Summative Evaluation

The advantages of summative evaluation are mentioned below

- It provides reinforcement to teachers and instruction.
- It helps in planning and organising of further teaching.
- It judges to what extent objectives are realised on the basis of learner's performance.



Difference Between Formative And Summative Evaluation

| | FORMATIVE EVALUATION | SUMMATIVE EVALUATION |
|--------------------------|---|--|
| What information? | <ul style="list-style-type: none"> • Specific description of daily events • Organizational skills • Needs assessment | <ul style="list-style-type: none"> • General trends based on specific descriptions • Overall attitude • Comparison with evaluation tool |
| When to give? | <ul style="list-style-type: none"> • At the time of the incident • End of the day / Weekly • Mid-point in the course | <ul style="list-style-type: none"> • End of the course |
| Where? (context) | Primarily prospective | Primarily retrospective |
| Why? | <ul style="list-style-type: none"> • Analyze strengths and weaknesses towards improving • Develop habits • Shape direction of professional development • Opportunity to reflect on meaning of past achievements • Feedback | <ul style="list-style-type: none"> • Document achievement • Document habits • Show results of such forays • Evidence of regular formative evaluation • Evidence |

NORM REFERENCE & CRITERION REFERENCE TESTS

CRITERIAN REFERENCED EVALUATION

Meaning

Criterion Referenced Assessments measure how well a student performs against an objective or criterion rather than another student. Criterion referenced test interprets achievement in terms of predetermined standard (Criterion) of performance, without the reference to level of performance of other members of the class. Criterion-referenced assessments are most appropriate for quickly assessing what concepts and skills students have learned from a segment of instruction.

In the Criterion referenced test, the student does not compete against others but compete against essential instructional objectives. Criterion-referenced assessments help to eliminate competition and may improve cooperation. Criterion-referenced classrooms are mastery-oriented, informing all students of the expected standard and teaching them to succeed on related outcome measures.

In Criterion Referenced Assessment, the learner is evaluated in terms of 'Mastery' or 'Non-Mastery' level of learning. For example, the following can be the few criteria fixed for the second standard students.

- i) Identifying 90% 'norms' in a list of 50 words
- ii) Writing all the numbers from 10 to 100 in ascending order
- iii) Pronouncing the alphabets A to Z

Purposes of Criterion Referenced Evaluation

The purposes of Criterion Referenced evaluation are listed below

- To determine an individual's performance with reference to an objective or a criteria
- To identify the mastery learning of the content
- To interpret the level of achievement in terms of predetermined standard of performance

Uses of Criterion Referenced Evaluation

- Well-constructed criterion-referenced tests indicate the necessary changes of a curriculum.
- Criterion Referenced Evaluation is useful for devising an effective instructional sequence to attain the needed competencies of learning.
- It helps the process of Curriculum Evaluation,
- Criterion-referenced tests are useful to modify the norms of a test i.e to change the minimum pass marks based on the difficulty level of the performances.
- It is used to evaluate the effectiveness of an instruction.
- It helps to eliminate competition among learners.
- It determines the performances in relation to a pre-determined performance level on a specified set of educational goals or outcome% included in the school, district, or state curriculum
- It enables partial completion of a task to be recognized. wherein students can gain marks in proportion to how much of the task they have completed successfully.
- It gives the opportunity to compensate some elements of a task which have been done badly by the learners during learning.
- It enables the weightage to be given to different elements of the task and to make it explicit to the students.
- Educators or policy makers may choose to use a Criterion Referenced Test when they wish to see how well students have learned the knowledge and skills which they are expected to have mastered.

NORM REFERENCED EVALUATION

Meaning

Norm Referenced Evaluation interprets the performance of an individual in relation to the performance of other individuals in a class. In other words, it compares an individual's score to the group score. In this evaluation, an individual's performance is compared with the performance of his peer group.

Norm referenced test is constructed specifically to make comparisons among students in the content area measured by the test. Grade-norms and age-norms are used for interpretation. At present, Norm referenced testing is the commonest form of evaluation in schools and colleges in India.

Purposes of Norm Referenced Evaluation

The purposes of Norm Referenced Evaluation are listed below.

- To determine an individual's performance in comparison to others.
- To sort students and not to measure achievement towards some criterion of performance.
- To differentiate the learners into groups based on their ranks

Uses of Norm Referenced Evaluation

- Most appropriate when one wishes to make comparisons across large numbers of students
- It is useful to take decisions regarding student placement and advancement.
- Norm-referenced measures are designed to classify the learners into different groups based on comparison of their achievements.
- It useful to provide attention for individual differences among learners towards the attainment of set goal.
- This is useful when there is a wide range of acceptable scores that is different for each school.
- Many Norm referenced tests yield standard scores, which allow comparison of the student's scores to other tests.
- Norm-referenced evaluation allows us to compare a student's skills to others in his age group.
- Educators use norm-reference tests to evaluate the effectiveness of teaching programs to help determine students' preparedness for programs,
- Norm referenced evaluation is used to determine the disabilities of the learners for providing special education programs.

DIFFERENCES BETWEEN CRITERIAN REFERENCED AND NORM REFERENCED EVALUATIONS

| CRITERIAN REFERENCED EVALUATION | NORM REFERENCED EVALUATION |
|--|---|
| It measures the performance of of an individual against an objective or criterion. | It measures the performance an individual in relation to the performance of other individuals in a class |
| In Criterion Referenced Evaluation, the evaluation reports are given in terms of percentages | In Norm Referenced Evaluation, the evaluation the reports are given in terms of group averages, grades, rank etc. |
| In CRE, an individual's scores alone can be interpreted. | In NRE, an individual's score is interpreted in relation to the scores of other individuals |
| It measures the specific performance. | It makes a comparative decision. |
| It is not concerned with maximization of variability of test scores. | It is concerned with the maximization of variability of the test scores. |
| It evaluates the effective of an instruction. | It evaluates the individual differences in student's performance. |
| Criterion Referenced Tests are constructed on the basis of behavioral objectives. | Norm Reference Tests are constructed on the basis of detailed content specification. |
| Test scores are interpreted in terms of grades. | Test scores are interpreted in terms of norms. |
| Test items that represent essential 'Competencies' & 'abilities' are selected for testing. | Test items of moderate difficulty levels are selected for testing. |
| Tests aim at 'Mastery Learning' and have curricular meaning. | Tests aim at average performance and hence it has statistical meaning. |