UNIT 3 APPROACHES TO EVALUATION

Structure

3.1 INTRODUCTION

In Unit 1 and 2 of this Block, we have discussed about the purpose and perspectives of assessment. We have also discussed that assessment is an integral part of teaching-learning process and assessment helps in enhancing learning of the learner. In this context, you have already learnt the concepts of 'assessment for learning' and 'assessment of learning'. As a student teacher, you need to understand various approaches to evaluation appropriate for different purposes.

This Unit basically caters to discuss on various approaches to evaluation. We usually use three approaches of evaluation in assessing the student's performance in the school. They are: placement, formative, diagnostic and summative evaluation (on the basis of types and functions of evaluation); internal and external evaluation (on the basis of school practices); and norm-referenced and criterion-referenced evaluation (on the basis of nature of reference).

Discussion in this Unit will make you understand the purposes and processes of using the above three approaches of evaluation in the school with examples.

*[**Note:** IGNOU Programmes, B.Ed. (ES-333), D.El.Ed. (BES-002) and CPPDPT (BES-052) have been referred to develop this Unit]*

3.2   OBJECTIVES

After going through this Unit, you should be able to:

- explain placement, formative, diagnostic and summative evaluation;

- distinguish between formative and summative evaluation;

- explain internal and external evaluation;

- distinguish between internal and external evaluation;

- describe norm-referenced and criterion-referenced evaluation;

- distinguish between norm-referenced and criterion-referenced evaluation; and

- explain the processes involved in construction of criterion-referenced tests.

3.3   APPROACHES TO EVALUATION : PLACEMENT, FORMATIVE, DIAGNOSTIC AND SUMMATIVE

Assessment is conducted in different phases of the teaching learning process. We carry out assessment before the beginning of the teaching-learning process; during the teaching-learning process and at the end of the instructional process. Approaches of Evaluation on the basis of its types and functions can be classified as follows :

- Placement evaluation

- Formative evaluation

- Diagnostic evaluation

- Summative evaluation

Each of four types of evaluation serves different purposes. In the teaching-learning process, evaluation starts with placement evaluation and ends with summative evaluation. All four types of evaluation are important, and are unique in their functions. The four types of evaluation and their functions are diagrammatically presented in Table 3.1 for your understanding.

Table 3.1 Types of Evaluation and their Functions

Areas of Function	Types of Evaluation and their functions
Before instructional process	*Placement evaluation* (to know entry behaviour)
During instructional process	*Formative evaluation* (to know mastery in content)
	Diagnostic evaluation (to solve learning difficulties)
After instructional process	*Summative evaluation* (to certify the learner)

Table 3.1 shows different types of evaluation which are conducted in teaching-learning process. Generally, evaluation starts with measuring the entry behaviour of the learners and conditions till the judgement of their terminal behaviour. Let us discuss the main purpose and functions of each type of evaluation.

3.3.1 Placement Evaluation

Placement evaluation can be defined as a type of evaluation that provides information to the teachers about the learners to whom he/she deals with relating to their existing knowledge and experiences based on that the teacher designs to teach new knowledge. You have seen in Table 3.1, placement evaluation is conducted before undertaking the teaching-learning activities. It is basically used to measure the entry behaviour or existing knowledge of the learners. Another purpose of placement evaluation is to know whether the learner is able to acquire the new learning experiences based on his/her previous knowledge. The key word which is used for placement evaluation is the "entry behaviour". Assessment of entry behaviour is done just before teaching starts. In the teaching-learning process, before teaching a new topic, teacher should know the previous knowledge of students. This helps teacher to organise teaching-learning activities according to the previous knowledge of learners. The technique of introducing a lesson by asking certain questions from the previous knowledge of the students is related to the topic taught or by any other techniques like demonstrating something, telling a story, doing a role play, etc. are also the examples of placement evaluation. In other way, conducting a type of entrance examination for selecting learners to a particular course is also example of placement evaluation.

3.3.2 Formative Evaluation

For the first time in the year 1967, Michael Scriven used the concept of formative evaluation while working on curriculum evaluation. According to Scriven (1991), *"Formative evaluation is typically conducted during the development or improvement of a programme or product (or person, and so on) and it is conducted, often more than once, for in house staff of the programme with the extent to improve"*. If we analyse the definition, it is clear that the purpose of conducting formative evaluation is to monitor the learning progress of the learner. Though initially the concept of formative evaluation coined in the area of curriculum development but subsequently the term got familiar to use in the teaching pedagogy and the process of teaching and learning. It is also conducted to know whether the learning objectives are being achieved or not. The key word in formative evaluation is learning progress. As shown in Table 3.1, formative evaluation is considered as the second stage of evaluation which is conducted during the teaching-learning process. The first stage of evaluation is the placement evaluation . Formative evaluation starts from the very beginning of designing instruction and it continues till the end of the course/instruction. Conducting unit end examination, monthly examination, quarterly examination, half-yearly examination, etc. are the examples of formative evaluation. It provides feedback to the teachers to know effectiveness of their teaching and modification required and the learners to know the progress of their learning. It also provides scope for diagnostic evaluation. The salient features of formative evaluation are as follows:

- It builds on the prior knowledge, and experiences of the learners, and ensures learner friendly assessment.

- It helps in enhancing the learning abilities of the learner.

- It provides scope for the use of variety of activities, and various tools and techniques for promoting holistic development of the learners.

- It ensures learning in a non-threatening and supportive environment.

- It provides descriptive feedback to children for realising their strengths and weaknesses.

- It provides a chance to the learners to reflect on their performance, as it realises the role of motivation and self-esteem of students learning.

- It encourages learners to understand the criteria/parameters that have been used to judge their performance.

- It helps learners to actively and continuously engage in learning.

- It provides feedback to the teachers to use teaching strategies according to the needs of the learners.

- It is diagnostic and remedial, formal and informal approach of assessment.

Formative evaluation supports for continuous and comprehensive evaluation of the learners. It provides scope both to the teachers and the learners to establish a continuous assessment culture in the classroom (see Figure 3.1).

Figure 3.1: Components of formative evaluation culture in the classroom
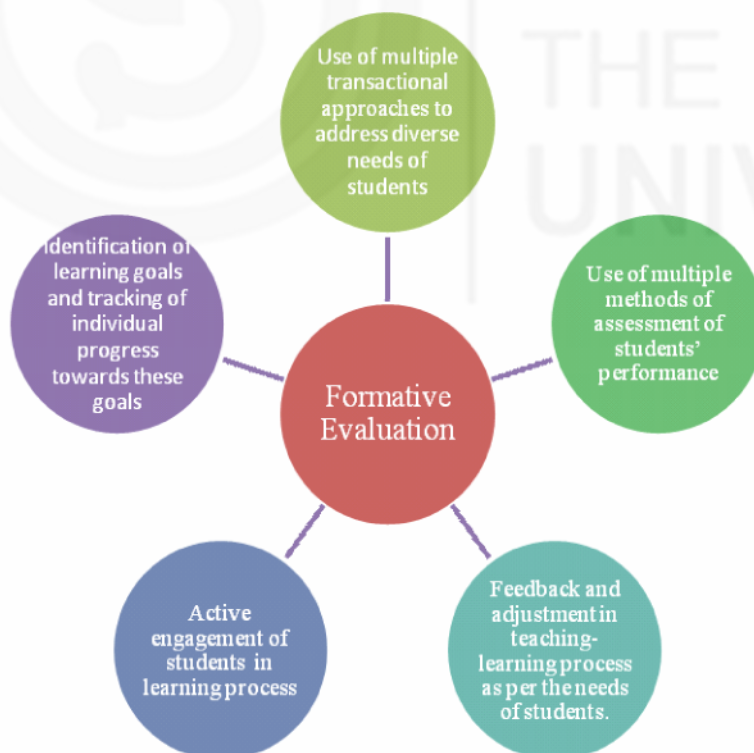
We use a variety of tools and techniques for conducting formative evaluation. The use of tools and techniques are decided keeping in view the subject/topic being taught, the abilities of the learners and learning objectives we want to assess. Central Board of Secondary Education (2010) and Kendriya Vidyalaya - Zonal Institute of Education and Training (2012) suggested to use the following tools and techniques in assessment of the progress of learners.

Table 3.2: Tools and techniques used in formative evaluation

Tools	Techniques
Questionnaire	Examination
Observation schedule	Assignments
Interview schedule	Quizzes and competitions
Checklist	Projects
Rating scale	Debates
Anecdotal records	Elocution
Document analysis	Group discussions
Tests and inventories	Action plan
Portfolio analysis	Experiments
	Worksheet
	Seminar
	Symposium
	Survey

*(**Source**: CBSE, 2010, p.29 and KV-ZIET, 2012)*

It is essential for teachers to realise, that they do not need to always use the formal unit tests or performance tests; instead they should integrate formative assessment in their day-to-day classroom practice in various ways, such as:

● Observation during classroom activities;

● Non- verbal facial expressions of children;

● Classroom discussion and homework review;

● Informal question – answer sessions;

● Classroom activities where children make presentations, such as, presentation of project reports, etc;

● Student feedback periodically collected by the teacher on teaching- learning process;

● Self –evaluation of children on different activities; and

● Maintenance of reflective journals by teachers which are reviewed by them periodically.

The above aspects of assessment of learners performance can be done by the teachers in daily teaching or periodically as per the situation and scope.

The use of any particular tool or technique depends on the nature of topic being discussed, nature of activities undertaken, and the level of children involved in these activities. We may often need more than one assessment tool/technique to have comprehensive formative assessment. As example, if we practice

'presentation of project' as a technique of assessment in the class, we can equally use the portfolio as a technique for assessment periodically. The learners will make their portfolio periodically where presentation of project which has already presented by the learners can also be preserved and included in the portfolio for periodical evaluation.

3.3.3 Diagnostic Evaluation

Diagnostic evaluation is conducted along with formative evaluation during the instructional process. It is carried out based on the data obtained from formative evaluation. Diagnostic evaluation is specially conducted to identify and remove the learning difficulties of learner if it is observed and found during the formative evaluation. For example, if a learner couldn't understand certain concepts in a particular subject and continuously performing poorly in that subject, we conduct diagnostic test to know the causes of the difficulties and accordingly provide them remedial treatment to overcome the difficulties. The key word in diagnostic evaluation is identifying of 'learning difficulties'. Diagnostic evaluation not only solves learning difficulties of learners but also identifies and provides remedies for personal, physical and psychological problems. This can be exemplify as sometime you may find that few students in your class are very nervous to come forward and say something, tendency of fear towards the friends and teachers, suffering certain psycho-social disorders and physical disorders.

3.3.4 Summative Evaluation

Summative evaluation is used to find out the extent to which the instructional objectives have been achieved at the end of a terminal period. It is used primarily for assigning course grades or for certifying student's mastery of the intended learning outcomes at the end of a particular programme. The techniques used for summative evaluation are determined by the instructional objectives. For this evaluation, both external and teacher-made tests are used. Although the main purpose of summative evaluation is assigning grades or marks, it also provides information for judging the appropriateness of the course objectives and the effectiveness of instruction.

So far we have discussed four types of evaluation. Though all types of evaluation are conducted in teaching-learning process, but the use of formative and summative evaluation are popular among them. You might have observed the similarities and differences among them. The similarity among them is that all are concerned with the assessment of learning. All are conducted at different phases of the teaching-learning process. But they differ in terms of their purposes, processes, techniques and tools used in collecting evidences, processes of providing feedback, functions, time/period in the teaching-learning process and their uses for future purposes. We can summarize summative evaluation as follows:

- It is conducted after the completion of the instruction in a term, a course or a school session.

- It 'Sums-up' how much a student has learnt over a period of time.

- It focuses mostly on assessing the scholastic abilities of the children.

- It contributes to the over all grading and certification of the children.

- It is mostly structured and formal approach to assessment of learning;

- It provides terminal feedback, both, to the teacher and the children to re-design their teaching and learning accordingly.

In the next section we will discuss about the differences between formative and summative evaluation. But before that you should undertake an activity.

Activity 1

In case you observed in your class that a student is paying very less interest in Mathematics and continuously getting less marks in the subject, as a teacher, how will you deal with that student and help him/her to solve the problem?

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Check Your Progress 1

Note: a) Write your answers in the space given below.

b) Compare your answers with the ones given at the end of the Unit.

1.   What is the most important objective of formative evaluation?

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2.   Write any two purposes of using summative evaluation.

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3.4   DISTINCTION BETWEEN FORMATIVE AND SUMMATIVE EVALUATION

In the Section 3.3 you have studied about the concept and processes of using various types of evaluation including the formative and summative evaluation. In this Section we will focus on the differences between formative and summative evaluation. We can differentiate between formative and summative evaluation based on different parameters. Table 3.3 will make you understand how both are different from each other.

Table 3.3: Distinction between formative and summative evaluation

Parameters	Formative Evaluation	Summative Evaluation
Time of use	• During the process of instruction.	• At the end of a • term/semester or session
Purpose	• To know the progress and mastery of learning. • To provide feedback both to the learners and teachers. • To provide data for summative evaluation.	• To certify and grade the learners. • To provide feedback to the learners for further study. • It includes formative evaluation.
Learning Objectives	• Are related with the topic taught. • Are limited in scope.	• Are related with the objectives of the course and the programme. • Are vast in nature.
Process	• By classroom observation • Can be conducted through oral and written teacher made tests. • By conducting peer and group assessment. • Mostly internal in nature. • It supports criterion-referenced evaluation. • Formative evaluation is usually a quick evaluation.	• By conducting term end examination. • Mostly external in nature. • By conducting mostly written type of examination. • By using teacher-made as well as standardized tests. • It supports norm-referenced evaluation. • Output of formative evaluation can be used in summative evaluation.
Tools and Techniques used	• By using varieties of assessment tools and techniques like text, questionnaire, scale, schedule, checklists, portfolios, quiz, debate and discussions, role play, dramatization, etc.	• Can only be conducted through written test, paper and pencil test.
Product	• Enable learners to know their progress in learning, difficulties they face and the ways to remove those difficulties. • Enable the learners for their continuous and comprehensive development. • Provide suitable remediation for further development of the learners.	• Award and certify the learners. • Make them enable and eligible to pursue further educational courses/ programmes.

Activity 2

Collect an annual progress report of any secondary school student and analyse the progress report in view of formative and summative components of assessment. Write your observations.

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3.5 INTERNAL AND EXTERNAL EVALUATION

In the Section 3.3 of the Unit, you have learnt about formative and summative evaluation. You know that the formative evaluation is mostly internal in nature which is highly based upon formal and informal observation of the students in various activities. Summative evaluation is a type of external evaluation as the external experts are engaged in setting the question papers, evaluating the answer scripts, and also conducting viva-voce of the students. Various education committees and commissions at different times have emphasized balancing internal and external evaluation in the school system. Keeping in view the above, in this Section we will discuss the nature of internal and external evaluation with their strengths and weaknesses.

3.5.1 External Evaluation

When examinations are organized and conducted by an agency other than the institution giving instruction to the students, and all the students of the group of institutions come together under the perview of the agency, the evaluation carried out is regarded are an external evaluation. To this extent, the public examinations in our country are conducted by the appropriate school boards are external evaluation. In such public examinations, the teachers concerned do not get directly involved in the process of evaluation. Ordinarily in such public examinations are not conducted with a specific objective in view. Thus a public examination may be conducted and the results of such an examination utilized for a large number of purposes. Actual testing is restricted to a candidate answering a question paper or a series of question papers each within a set time-limit.

Also when the examinations are conducted by the same institution which teaches but tests are prepared and marked by persons other than the ones who teach the group, the evaluation is called external. Thus when the teacher who teaches is not involved in the evaluation process, the evaluation should be called external.

3.5.1 Internal Evaluation

During the last decade, the popularity of internal evaluation has been increased. Most of the continuous and comprehensive evaluation is conducted by internal evaluation system. Internal evaluation supports formative and diagnostic evaluation. This is conducted to know the learning progress of the students and the difficulties that they face during the process of teaching and learning. Internal evaluation is also provides a base for remedial teaching to the identified students. The criteria that followed for internal evaluation are: evaluating the involvement of the students in the teaching-learning activities of the class; setting of the question paper by the class teacher teaching that class; and conduct of the examination vis-à-vis evaluation of the scripts by the teacher himself or herself. In the present days, internal evaluation in the school is quite popular and it is conducted by observation, peer evaluation, using portfolios, projects, discussions, demonstrations, etc.

3.5.3 Strengths and Limitations

The teacher concerned has always been regarded as the best judge of a student. Based on this principle, internal assessment of the students by teachers of the institution concerned has been adopted by many institutions in our country and elsewhere. In an internal assessment, it is necessary that a variety of tests are administered and proper statistical weightages are given to each and then an over-all grade is arrived at, as a true index of the capabilities of a student. There are also other aspects in internal assessment of different sections in a class. If a class has four sections and each section is taught by a different teacher, what will be the procedure adopted to realize uniformity in the evaluation. As like uniformity in internal assessment within different sections in a class within the school is an issue, the uniformity of internal assessment between schools are also equally an issue. Even an internal assessment requires continued research to improve its reliability and validity. Favouring attitude of the teachers to few students is also again an issue of internal evaluation. Although, certain demerits of internal assessment are there, still it is widely used in the system as it is realized that the teachers those teach the students are the best person in judging the abilities and over all performance of the students.

To minimize the limitations of internal evaluation, the popularity of external evaluation has also been realized. It is always a debate between the educationists and the teachers to determine the percentage of contribution for internal and external evaluation. It has always been observed that the percentage of external evaluation is more in comparison to internal evaluation specially in the board classes like 10th or 12th classes, but in class examinations, it is realized that the percentage of internal and external evaluation is more or less equal. The merits of external evaluation system is that the teacher evaluate the students hardly know to them earlier, so very rare chances are left in favour of a particular student whereas it has also realized that a major part of students evaluation should not be given in the hands of the external evaluation as they are least concerned about the continuous development of the students. Only the class teacher can be a best evaluator.

Activity 3

*Visit a near by Secondary School and interact with the head teacher
about the internal and external examination that they conduct in their
school. Write the way they conduct the external examination.*

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Check Your Progress 2

Note: a)   Write your answers in the space given below.

b)   Compare your answers with the ones that are given at the end
of the Unit.

3.   Define external evaluation.

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4.   Why does internal evaluation is getting popularity these days?.

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3.6 NORM-REFERENCED AND CRITERION-REFERENCED EVALUATION

The alternative approaches to educational testing that must be thoroughly
understood are norm-referenced and criterion-referenced testing. This classification
of test is also called as the typology of nature of reference. Although there
are similarities between these two approaches to testing, there are also
fundamental differences between norm and criterion referenced testing. Their

differences are based upon their construction and interpretation of the scores. Let us understand, about norm-referenced and criterion-referenced evaluation.

3.6.1   Norm-referenced Evaluation

When we measure one's relative position in a well defined known group, we usually use the norm-referenced test. As example, if we want to know Sudhir's rank or position in the 10th Board Examination held in 2017 in the State of West Bengal, that can be done through the norm-referenced test. In this example, we compare Sudhir's performance with others performance in that group. Let us take another example. Suppose a student secured 70 marks in English. The mark 70 is an individual score which provides very limited interpretation. A single score never provide us the interpretation like how good or how poor the student is in English. The individual score gives certain meaning when it is compared with the other scores in the group. Norm-referenced test is also a type of standardized test. The procedure followed for developing a standardized test is also followed for developing norm-referenced test.

According to Nayak and Rath (2010), the various procedures adopted for norm-referenced evaluation are as follows:

(i)   When marks are evaluated with reference to average, it is norm-referenced evaluation because the average is based upon the obtained scores. If it is to be used, as measure of variability which shows the scatter of the scores, should be taken into account.

(ii)   We can express a mark in terms of its standing in the group. It is clearly understood but it has certain difficulties. The 7th rank in a group of 10 does not have same meaning as the 7th rank in a group of 100. If number of candidates is not the same, we cannot compare the merit of a student in different examinations in terms of ranks.

(iii)   Standing in terms of grades may serve the purpose. But, sometimes, scores are converted in to grades, such as A,B,C,D & E, etc. is not precise because grades cannot be added or averaged.

(iv)   Standing or a rank may be expressed by percentile norms. It is more precise than a grade report and comparable in precision with a rank report.

Norm-referenced achievement tests are more familiar. The norm may be set up on a local, state or national group depending upon the use of the result. As the norm-referenced tests are prepared for the wide range of the population, so the test items are generally retained which are average in difficulty value. It means that the very easy and difficult items are rejected. There are several procedures to determine the standing positions of a student. We can not say that a single method or approach is most comprehensive and accurate. All approaches have its own merits and limitations. The methods are used in different situations based on the nature of the test and nature of comparison.

3.6.2   Criterion-referenced Evaluation

Criterion referenced evaluation is related to performance of the students in a well defined learning task. It has nothing to do with the norms or relative rank or position of students in any well defined group. As example, if we say that Sudhir successfully solves 60 percent of questions in the chapter of 'Modern

History' in class-IX text of History, is rightly an example of criterion-referenced evaluation. In this example, the performance of Sudhir is defined in relation to a learning task i.e., chapter of 'Modern History' in the class-IX text of History. Thus in contrast to a norm-referenced evaluation we can refer an individual performance to a pre-determined criterion which is well defined. In criterion-referenced evaluation, a criteria is fixed i.e. a fixed standard in a learning task, say 50% or 60%. In it, the individual's status is ascertained with respect to some performance standard. The standard is the measure representing the criterion, the criterion itself being a specified performance. In criterion-referenced evaluation, there is no question of comparing one student with the other in it. To conclude, we can say, if we want to select the students who have achieved a particular level of performance, we seek criterion-referenced evaluation but if we want to select a particular percentage or number of students, we prefer norm-referenced evaluation to criterion-referenced evaluation. In the next section, we will discuss in more detail about the distinction between norm-referenced and criterion-referenced evaluation.

3.6.3 Distinction between Norm-referenced and Criterion-referenced Evaluation

After reading the earlier sections, you might have understood the concept and purposes of developing and use of criterion-referenced and norm-referenced evaluation. Let us discuss, how both of them are distinct and different from each other.

Table 3.4: Distinction between norm-referenced and criterion-referenced evaluation

Parameters	Norm-referenced Evaluation	Criterion-referenced Evaluation
Time of use	• At the end of a term, naturally school board examination.	• During the progress of instruction, like conduct of class examination.
Similarities with other tests	• It supports summative evaluation. Standardized tests are suitably used.	• It supports formative and diagnostic evaluation. Teacher-made tests are usually used.
Purpose	• To know the relative position rank of the students in a well defined known population or group. • Comparison of a student is possible with other students or groups.	• To know individual performance in a well defined learning task. • No comparison is possible with other students, only standard of a student can be defined in relation to a learning task i.e. called criterion.
Relative or Absolute	• A norm-referenced test is used to ascertain an individual's status with respect to the performance of other individuals on that test.	• A criterion-referenced test is used to ascertain an individual's status with respect to a defined achievement domain.
Instructional Objectives	• No instructional objectives are fixed. • Course objectives are given importance.	• Specific instructional objectives are developed, which may defined as a standard.

Parameters	Norm-referenced Evaluation	Criterion-referenced Evaluation
Population	• This is organized on a vast population, like students in a State, region etc.	• Can be carried out within a limited area, even in a school, class or section.
Process of the development	• All the steps of standardizing a test are followed. • Reliability, validity, norm, item difficulty, discrimination, etc. are calculated. • Is a type of external evaluation.	• A teacher-made achievement test can be used in determining the content validity. • Can be used without knowing the reliability, validity, etc. • Mostly internal in nature.
Type of test items	• Can be used both in objective and essay type of items. • Popularly, objective items are mostly used.	• All types of items can be taken.
Comprehensive-ness of the Test	• A norm-referenced test typically measures a more general category of competencies, knowledge, or aptitude. • A single norm-referenced test covers many criterion-referenced tests.	• A criterion-referenced test typically focuses on a more specific domain of examinee behaviours. • Many criterion-referenced tests categorically provide shape of a norm-referenced test.
Product	• Can be used to certify or grade the students. • Can also be used to provide placement to the students for higher study and to get entry in various job fields as well.	• Can be used to know the learning progress and also to identify the learning difficulties of the students. • Minimum Level of Learning of the students and mastery of the students on any learning task can be determined. • This can help the teachers to know the entry behavior of the students and accordingly they can plan for new teaching. • On the bases of criterion-referenced evaluation, remedial instruction can also be possible to provide to the identified students.

Activity 4

Cite one example each in norm-referenced and criterion-referenced evaluation and also discuss the purpose they are used.

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Check Your Progress 3

Note: a) Write your answers in the space given below.

b) Compare your answers with the ones given at the end of the Unit.

5. Define norm-referenced evaluation.

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6. Define criterion-referenced evaluation.

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7. Write any two differences between norm and criterion-referenced evaluation.

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3.7 CONSTRUCTION OF CRITERION-REFERENCED TESTS

There are varieties of criterion-referenced tests. Due to confusion in the nature and scope of such tests, it is quite difficult to provide clear cut guidelines for their construction. However, keeping in view the basic tenets of criterion-referenced tests, the following steps can be suggested. Criterion referenced test is highly used in the schools by the teachers. Some of these steps may be combined while others can be split up into two or more steps. Steps of norm-referenced test are not discussed here as it follows the entire process of test standardization and development of norms for its use. Test standardization has been discussed in Block-2 of this course.

i. **Identification of subject area:** The first step in the development of criterion-referenced test is the decision about the subject matter area to be worked out. For example, one may take up Mathematics, English, Environmental Studies etc. depending upon the need of the area and the resources one can utilize for one or more subject areas.

ii. **Selection of unit/topic:** After the decision taken about the area, the next step is to select the unit on which the test is to be developed. This unit may have more than one modules/sections/domains which comprise the total unit. Depending upon the need, one or more than one sections or chunks of content may be taken up for test construction.

iii. **Delineation and description of domain of testing:** Since domain refers to a particular segment of the content, one may examine topic and delineate it into various segments which can be developed into well defined separate sub-domains. Each sub-domain can then be analyzed in terms of facts, concepts, principles, processes, etc. That may be arranged in order of their increasing complexity. Description of sub-domain is very important as it provides the basis for item writing; it should reflect clearly the nature and scope of the content specification in sequential, hierarchical or development order.

iv. **Specification of domain objective:** Having decided about content elements of a domain selected, the next task is to formulate the instructional objectives on expected learning outcomes which may be categorized in terms of knowledge, understanding, application, skills, attitudes, etc. These objectives should be stated so precisely that the performance of students is clearly interpretable in terms of adequacies or inadequacies of intended learning outcomes. For more clarification, sample prototype items can be framed, that may accompany each specific objective.

v. **External review of steps (iii) and (iv):** The tasks identified in steps (iii) and (iv) should be reviewed by those who are not involved in identifying the domain and its descriptions in terms of the content elements and the specific objectives. However, a teacher who teaches that particular subject may also be involved in this task so that he/she may be able to clarify doubts, if any, raised by the external reviewers. The main purpose of this review is sharpen domain description and the specific objectives in order to make them more realistic and functional. For this, sample items accompanying the specific objectives bare checked for their congruence with each objective and content elements.

vi. **Internal review:** As step (v), the internal reviewer, i.e. the constructor himself/herself will examine all specific objectives along with one or more sample items which accompany each specific objective. The focus of this review is on sharpening the specific objectives further, if necessary.

vii. **Construction of test forms A & B:** It is desirable to develop two forms of test, A & B so that one of the two could be used after post instructional remedial measures. Moreover, it would be easier to compute reliability on the two forms. A copy of the key or the correct answer should accompany the test and may be returned by the developer. As far as the construction of items is concerned, these items are to be developed in accordance with the domain description. This is, however, not always possible or practical, especially, in teacher made test. Therefore, in teacher made tests, only one test form will do.

viii. **Internal review of step (vii):** An internal review by the teacher is essential after the test is ready, i.e. after step (vii). The purpose of this review is to see whether all questions in the test are congruent with the specific objectives, besides, having a cursory check for any glaring deficiencies in the test e.g. placement of key, arrangement of items, sufficiency of instructions etc. It is at this stage that items can be further improved and the congruence of items with the specific objective is ensured.

ix. External review of the test: Prior to the field trail, the test may be re-examined by the practicing teachers. The main purpose is to detect content flows, language clarity, and check for congruence of items with the domain description. This should be done preferably by those very people who do external review for steps (iii) and (iv) as mentioned under step (v).

x. Field trial of the test: At this stage, the test may be tried out on a limited number of students, say 5 to 10. It is better that the subject teachers other than those involved in the development of the test, administer these tests. However, one team member of the developers may accompany them in order to meet the queries, if any, relating to the content of procedure that might arise during try out of the test. This is possible only if the member who is conversant with the development of the test is associated in the field try-out.

xi. Internal review: After step field trial, internal review would provide a last look. Internal review would depend on the changes, if any, that have been made as a result of the review or the field try-out. The purpose of this review is to certify the final format of the test and pass it for print or use.

xii. Final form of the test: Now the final form of the test is ready for use and may be administered after having it published, depending upon the size of the group to which the test is to be given. A sign-off sheet may be used to accompany the various steps as they move from step (i) to (xii). Each test may be kept in a folder to which the signed sheet may be attached. This enables the developer to keep track of the given test. To monitor the progress of the test as it goes through various stages of development, a master progress sheet can be used.

xiii. Using the test in a classroom: Test copies can now be used in the classroom. The test can be administered to test the domains which are covered by the test. The domains being tested can be arranged according to the needs of the teacher and administered accordingly. Students' responses may be recorded and tabulated in accordance with the scheme of analysis which has to be mostly in terms of specified domain objectives.

xiv. Finding validity and reliability of the test: Since the data are now available on the test, we may find out the reliability and validity of the test using various techniques.

Activity 5

Select a chapter/unit of any subject of school text that you teach and prepare a small criterion-referenced test. Finalize the test by obtaining the content validity and trying it out on ten students. Write the detail process of preparing it.

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3.8 LET US SUM UP

In this Unit, we discussed various approaches to evaluation such as placement, formative, diagnostic and summative evaluation; criterion and norm referenced evaluation; and internal and external evaluation. On the basis of functions of evaluation, we discussed placement, formative, diagnostic and summative evaluation. On the basis of school practices, we discussed internal and external evaluation. On the basis of nature of references, we discussed norm-referenced and criterion-referenced evaluation. We have also discussed the distinction between various types of evaluation such as formative and summative; and norm-referenced and criterion-referenced evaluation.

In nut shell, you are acquainted with assessing existing knowledge of the students by placement assessment; get an idea about the progress of the learners and solving their difficulties by conducting formative and diagnostic evaluation; and grading or certifying students by conducting summative evaluation. Further, you are acquainted with the importance of conducting both internal and external evaluation for certifying the students. Finally, the usefulness of criterion and norm referenced tests have also been discussed which the teachers, usually use in their teaching.

By reading this unit you might be acquainted with the techniques and tools used for different types of evaluation and also you might have realized that evaluation is not a task of the teacher to evaluate achievement of the students, rather it is equally important for the learners to acquaint them with self assessment techniques and enhancing learning of their own. After all, the soul purpose of any assessment strategy is to empower the teacher as well as the learner to get feedbacks and modify their teaching-learning behavior.

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3.10   ANSWERS TO CHECK YOUR PROGRESS

1. To know mastery of the students on the learning task and also to identify the learning difficulties of the students and accordingly to provide them remedial instructions.

2. To know the terminal behavior of the students and also to certify and grade the students.

3. When the tests are prepared and evaluated by persons other than the ones who teach the students is called external evaluation.

4. Internal evaluation is popularly used because to make assessment is an integral part of teaching-learning process; to help the learners to enhance their learning through assessment techniques; and to make assessment continuous and comprehensive.

5. To know one's relative position/rank in a well defined known group.

6. To know one's performance/achievement in a well defined learning task.

7. In norm-referenced evaluation, individual performance is compared with the performance of group or other students in that group whereas individual performance in a learning task is analyzed in criterion-referenced test. Norm-referenced test follow all the steps of test standardization for its development whereas teacher-made test are used in criterion-referenced test.