Indira Gandhi
National Open University
School of Education

BES-127
Assessment for Learning

Block

3

LEARNER'S EVALUATION

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BLOCK 3 LEARNER'S EVALUATION

Introduction to the Block

This Block consists of four units dealing with practices in school-based assessment and evaluation. The Block starts with the Unit, '**Teacher Made Achievement Tests**' (Unit-9) which deals the conceptual discussions for understanding a teacher made test and to prepare it for class use. The style of writing each type of items (objective type, short-answer type and essay items) has been discussed in this Unit. This Unit enhances the ability of teachers to prepare their own test as per the requirements and use it in their class.

Second Unit of this Block, titled, '**Commonly Used Tests in Schools**' elaborately discusses the essential features of commonly used tests such as achievement test, aptitude test, diagnostic test, oral test, practical tests, question bank and observation techniques. These tests are very much important to use in classroom situations to know learning progress and learning difficulties of the students. These are highly helpful for the students to know their continuous development in scholastic and other areas.

Third Unit of this Block, entitled, '**Identification of Learning Gaps and Corrective Measures**' which discusses the existence of gaps in learning can be detrimental not only for students' understanding but also hampers the success of teaching-learning process. The identification of learning gaps / difficulties along with causative factors of a student is generally referred as educational diagnosis. The Unit focuses on various aspects of diagnostic evaluation and how such type of evaluation can be used to identify learning gaps or difficulties among learners. In addition, the Unit will throw light on ways and means of providing remedial measures so as to fill the learning gaps in different content areas.

The fourth Unit, '**Continuous and Comprehensive Evaluation**' deals the process of assessment conducted in school system. Assessment is a continuous process and an integral part of every teaching-learning process. The function of assessment is not only to assess the abilities of students continuously but also it assesses the total personality of the students which includes both scholastic and co-scholastic areas. The Unit focuses on the concept and functions of Continuous and Comprehensive Evaluation (CCE). The techniques of assessment used in CCE for assessing scholastic and co-scholastic abilities of the students have also been discussed in this Unit. The Unit also focuses on the importance of recording and reporting students result. The role of students' profile and their cumulative record in the process of assessment have also been discussed in this Unit.

UNIT 9 TEACHER MADE ACHIEVEMENT TESTS

Structure

9.1 INTRODUCTION

Measurement, assessment and evaluation are integral parts of teaching-learning process. A teacher is directly involved in the assessment and evaluation of the achievement of a learner. Achievement refers to what a person has acquired or achieved after the specific training or instruction has been imparted. Thus, to measure what a pupil has learned, achievement tests are used.

On the basis of process of construction, achievement tests are classified into two categories, namely, non-standardized tests (commonly known as teacher made tests) and standardized tests. In general, teacher made achievement tests are used in classroom teaching learning situations. Practice of using standardized achievement tests in the daily teaching-learning process is very rare.

*(**Note :** Few sections of the Unit have been partially taken from Unit-8 'Achievement Tests', ES-333 'Educational Evaluation', B.Ed., IGNOU, 2010)*

In Units 5 and 7 of Block-1 of this Course, you have studied about various tools and techniques used for assessing scholastic and co-scholastic abilities of students. In Unit-6 of Block-1 of this Course, you have studied the criteria of a good tool and the differences between self-made and a standardised tool. Relating to this, in the present Unit, we will discuss the concept, importance and process of construction of teacher made achievement tests (TMAT) that are used in the teaching-learning process and examinations conducted in schools as well.

9.2 OBJECTIVES

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

- define a teacher made achievement test (TMAT);
- differentiate between a standardized and TMAT;
- explain the purpose of TMAT;
- describe the steps involved in constructing TMAT;
- prepare and illustrate a blue-print for TMAT;
- write various types of items for TMAT;
- prepare TMAT for your students;
- administer TMAT in your class; and
- score and interpret the results after administering TMAT in your class.

9.3 UNDERSTANDING TEACHER MADE ACHIEVEMENT TEST (TMAT)

Assessment and evaluation are integral parts of every teaching-learning process. Teacher prepares achievement tests to know the progress of learning of the students as well as achievement of learning objectives. In this section, you will study the concept and purpose of teacher made achievement test (TMAT).

9.3.1 Concept of TMAT

Achievement refers to what a person has acquired or achieved after the specific training or instruction has been imparted. Thus, achievement tests are the tools to measure what a student has achieved after the specific instruction in a class.

Tests are classified on the basis of different criteria. For example, on the basis of the criterion of administrative conditions, tests have been classified into two categories- individual test and group test; on the basis of the criterion of scoring – objective test and subjective test; and on the basis of the criterion of standardization, tests are classified into standardized test and teacher made test.

Standardized tests are those which have been subjected to the procedure of standardization i.e. item analysis, establishing reliability and validity etc. In Unit-6, Block-2 of this Course, you have studied the difference between self-made/teacher-made and the standardised test. In that Unit you have also studied the criteria of a good tool i.e. reliability, validity, usability, objectivity and norms. In this section, you will learn more about the process of construction of TMAT.

Teacher-made tests are those that are constructed by teachers for use largely within their classrooms. Thus, teacher made achievement tests are those that are constructed by the teacher to assess learning progress of the students and also to identify if there is any learning difficulty to that particular content/ concept. Preparing and using teacher-made test in teaching and learning is a regular task of teachers. For preparing teacher-made tests, objective type or essay type items or both can be constructed.

Classroom tests, chapter-end or unit-end test, quarterly, half-yearly, annual, and pre-board examinations, etc. are the examples of TMAT.

9.3.2 Purpose of TMAT

The purpose of teacher made achievement tests has been discussed in the previous section. You have studied earlier that TMAT especially provides an idea to the teachers about the progress and mastery of learning of the students. It also provides teachers feedback about how effective the teaching was, and whether the learning objectives have been achieved or not. It also provides teachers enough feedback to re-design his/her teaching and learning conditions to make it more effective. According to Gronlund (1981) TMATs can be used for a variety of instructional purposes. They are :

- To measure whether students possess the pre-requisite skills needed to succeed in a unit or course or to what extent students have already achieved the objectives of the planned instruction (Placement Evaluation);

- To monitor students' learning progress and to provide ongoing feedback to students and teacher about the success of the teaching-learning process (Formative Evaluation);

- To identify students' learning difficulties in any areas of learning, to investigate the causes of the learning difficulties and to provide adequate remedial instruction to maintain the gap of learning. Though every achievement test has some diagnostic value, but to diagnose the learning difficulties in detail, one cannot totally rely upon an achievement test. For this the teacher has to prepare diagnostic test which is fundamentally different from preparing achievement test (Diagnostic evaluation followed by remedial teaching) (refer Unit-11, Block-3 of this Course); and

- To assign grades and certify the students at the completion of any semester, year or entire programme (Summative evaluation). (refer Unit-3, Block-1 of this Course)

Check Your Progress 1

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

b) Compare your answer with those given at the end of the Unit.

1. Define teacher made achievement test.

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2. Write any two examples of TMAT?

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3. Differentiate between TMAT and standardized achievement test.

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4. How does TMAT help the teachers to modify their teaching behaviour?

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9.4 TYPES OF ACHIEVEMENT TEST ITEMS/ QUESTIONS

Like any other test, quality of an achievement test is determined by the quality of its items. Commonly, classroom achievement test or TMAT consists of objective test items and performance assessments that require students to construct response (e.g. write an essay) or perform a particular task (e.g. prepare a model or measure the length etc.).

According to Linn and Miller (2005), objective test items are highly structured and require the students to supply a word or two or to select the correct answer from a number of alternatives. They are objective tests because they have a single right and the best answer that can be determined in advance. Performance assessment tasks may require the students to use

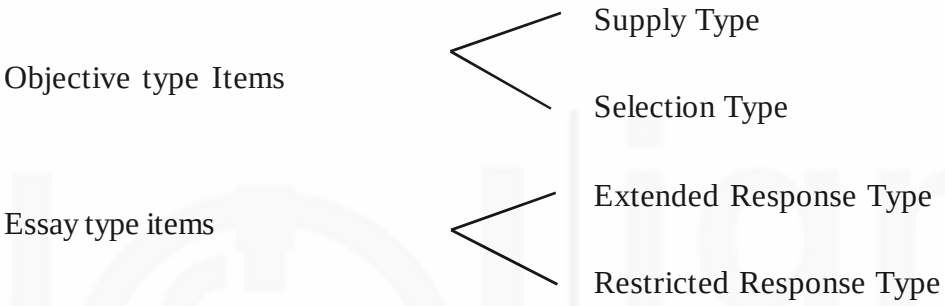
equipment, generate hypotheses, make observations, construct something e.g. a model, chart, etc., or perform for an audience (e.g. give a speech). For most performance assessment tasks, there is not a single right or best response – there may be a variety of responses that are considered excellent. There may be multiple ways of structuring the problem and organizing a response. Expert judgment is required to score the performances.

Thus, the items of an achievement test may be divided into two major categories:

(i) Objective items, and

(ii) Essay items.

According to Linn and Miller (2005), the major categories of objective test items or eassy items may be further subdivided into the following basic types of test items and assessment tasks:



Let us discuss each type of achievement test items. The detailed discussions about various types of objective test items are as follows :

9.4.1 Objective Type Items

Do you know, what an objective item is? An objective item is free of all type of biases and subjectivity in scoring. In each objective type item, there is one and only one right answer. The student has to select the right answer from among the given options. In some objective type items, the student has to write the right answer either in a single word, number, or term. As presented above, objective items are broadly of two types : supply type and selection type items. Let us understand different supply type objective items.

(i) Supply type items: These items require student to supply the answer. This is also known as simple recall items. In such items, the teacher asks a short question expecting a quick one-word answer or completion of a statement. Supply type items are further classified into very short answer type and completion type. Let us understand both types of supply type items.

- Short Answer (we also call these very short answer type item)
- Completion or fill-in type item.

Very short answer type items and the completion type items are supply type test items that can be answered by a word, phrase, number, or symbol. They are essentially the same, differing only in the method of presenting the problem. The very short answer item uses a direct question, whereas the completion item consists of an incomplete statement.

Examples:

Very short answer type item :

What is the composition of water?..... *(Answer: H_2O)*

Completion type items :

The name of the person who invented telephone is _____. *(Answer: Alexander Graham Bell)*

The supply type items are suitable for measuring a wide variety of relatively simple learning outcomes. For Example :

- To measure knowledge of terminology :

  Example: Mass movement of rocks, debris or earth down a slope is called ……. *(Answer: landslides)*

- Knowledge of specific facts :

  Example: President of India is elected for a term of ……. years. *(Answer: Five*

- Simple interpretation of data :

  Example: In the number 2250, what place value does the 5 represent? *(Answer: 50)*

- Ability to solve numerical problem :

  Example: The rate of bananas is 60 Rupees per dozen. How many Rupees do you need to buy 3 bananas? *(Answer: 15 Rupees)*

- Skill in manipulating mathematical symbols :

Example: If $2x + 5 = 15$

Then $x = ?$ *(Answer: 5)*

- Ability to complete and balance chemical equations :

Examples: $Zn + 2HCl \longrightarrow ?$

(Answer: $ZnCl_2 + H_2$)

OR

$Zn + (?)\ HCl\ ZnCl_2 + H_2$ *(Answer: 2)*

Supply type items are very commonly used in classroom achievement tests. Linn and Miller (2005) say that they are one of the easiest type of items to construct. It is because of the relatively simple learning outcomes they usually measure. Except for the problem-solving outcomes measured in Mathematics and Science, the supply type items are used almost exclusively to measure the recall of memorized information. But, there are certain points which a teacher should keep in mind while writing supply type items. They are :

- The item must not be ambiguous: (Example: Ambiguous form: Where was Mahatma Gandhi born?) This question may be answered by writing the name of city or district or state or country. To get the exact desired

answer, the question must be written specifically, for example: Better form: In which state, Mahatma Gandhi was born? (*Answer: Gujarat*)

- Do not take statements directly from textbooks to use as a basis for supply type item.
- Blanks for answers should be equal in length.
- A large number of blanks must be avoided in completion type items.
- Clues which give a direct hint to the correct answer must be avoided.

(ii) Selection type items: Another important type of objective items is the selection type of items where the student is required to select the correct answer from among a few given answers. Selection type items are considered as carrying the quality of objectivity. Scoring to such type items are considered easy and objective. Selection type items are further divided into the following :

(a) Alternative response type items

(b) Matching type items

(c) Multiple choice type items

a) Alternative Response Items: The alternative response item consists of a declarative statement that the student is asked to mark true or false, yes or no, right or wrong, fact or opinion, correct or incorrect, agree or disagree or the like. In each case, there are only two possible answers and the student has to select one answer out of the given two alternatives, rather than supplying the answer.

Example: The capital of India is New Delhi. (True/False) (*Answer: True*)

b) Matching Items: In a matching item there are two columns – right and left, and the items on the left column are to be matched with the items on the right column. The left column is called as 'premises' and the right column is called as 'responses'. This can be marked as 'Column-A' and 'Column-B'. In this type of item, it is always suggested that the responses in Column-B are comparatively more than the premises.

Example 1 : In the left – hand column the names of some countries have been given and in the right-hand column the names of some capitals have been given. Match name of the country with its capital:

	Column-A	**Column-B**
1.	India	a. Islamabad
2.	France	b. Baghdad
3.	Pakistan	c. Kabul
4.	Afghanistan	d. New Delhi
5.	Iraq	e. Paris
		f. Colombo

(*Answer: 1-d, 2-e, 3-a, 4-c, 5-b*)

c) Multiple Choice Items: It is the most popular and common form of objective type items and commonly called as multiple choice questions (MCQ). According to Linn and Miller (2005), multiple choice item can effectively measure many of the simple learning outcomes measured by short answer item, true-false item and matching type item. In addition, it can measure a variety of complex outcomes in the knowledge, understanding, and application areas. Multiple choice questions are well known for their extensive use in achievement testing. Apart from using MCQs in schools for knowing achievement of students, they can also be used in various public examinations. Especially for recruiting the candidates for different vacancies and for selecting candidates for admission to various academic programmes through entrance examination. The nature of entrance examination that you have taken for admission to B.Ed. is one of the appropriate example of MCQ test.

A multiple-choice item consists of two parts – problem and suggested solutions. The problem is put either in the form of a direct question or in the form of an incomplete statement and is called **stem** or **premise** of the item. The suggested solutions are called alternatives or choices or options. The student is asked to select the one correct or best alternative after reading the item. The correct response or the best answer is called the keyed answer and the remaining alternatives are known as distractors or foils.

Example: The most accurate measure of central tendency in a distribution is called –

(A) Mean (B) Median

(C) Mode (D) Standard Deviation

(*Answer: (A) Mean*)

While writing various types of selection type items for an objective type test, one should keep the following points in mind:

In true-false/two alternative response items :

- Double negatives must be avoided.
- The statement must be either entirely true or entirely false.
- The statement must not be complex and indirect.
- The number of true statements and false statements should be approximately equal.
- True statements and false statements should be approximately equal in length.

In matching items :

- Homogeneous content should be used in a single matching exercise.
- An unequal number of responses and premises should be included and the student should be instructed that one, more than one or no response may be used.

- All the items for one matching type item must be placed on the same page.

In multiple choice items :

- An item should contain only one correct or the best answer.
- There should be no verbal association between the item and the correct answer.
- The correct answer should appear in each of the alternative positions equal number of times but in random order.
- The length of the alternatives should be approximately equal.
- Weak distracters must be avoided.
- The stem should not be ambiguous and all the alternatives should be grammatically consistent with the stem of the item.

9.4.2 Essay Type Items

Performance assessment item or essay item is one in which the student answers in his/her own words. These items are most appropriate for measuring higher mental processes which involve the processes of synthesis, analysis, evaluation, organization and criticism of the events of the past. Performance assessment items are sub-divided into different groups on the basis of two parameters that are on the basis of length of answers and on the basis of type of responses.

On the basis of length of answer : On the basis of length of answer, the essay type items can be classified as follows :

a) Short Answer Essay Items

b) Long Answer Essay Items

According to Marshall and Hales (1972), a short answer essay item is one in which the examinee supplies the answer in one or two lines and is usually concerned with one central concept. A long answer essay item is one in which the examinee's answer comprises several sentences and is usually concerned with more than one central concept. Usually, short answer essay items are found comprising more than one or two lines and sometime a word limit of 50 or 100 words in which the students write their answers within the given limits. Let us consider the following examples :

Examples :

Short answer type items :

Which are the two main climatic factors responsible for soil formation?

Define soil erosion.

Long answer type items :

As stated earlier, long answer type items measure the higher order abilities of the students. It covers presenting the answer with full details. It includes the skills of analysis, synthesis, application, critical reflection, comprehending

the matter, etc. So far as length of long answer type question is concerned, word limits or time limit may be specified to answer it. Keeping in view the above, on the basis of types of response, long answer type items are classified as follows :

a) Extended-Response Essay items

b) Restricted-Response Essay items

This classification is based on the amount of freedom of response the examinee is allowed. In extended-response type items, the students are given almost complete freedom in making their responses, and in restricted-response type items, the nature, length or organization of the response is limited. The extended answer version includes questions which require students to write a brief description, draw a map, make a list, perform a calculation, translate a sentence, write down a definition or formula and so on (IGNOU, 2010). Let us understand both types of items with the help of examples:

Examples :

Extended-response type item :

Explain different types of farming. Which farming do you consider the best in Indian climate and why?

What were the circumstances which led to the eventual collapse of indigo production in West Bengal?

Critically analyse any one novel of Prem Chand.

Restricted-response type item:

Restricted response type items are not open ended. Certain restrictions are given to respond the question, that is in terms of words limit, time, and phrasing the questions with specifying weightage of marks to each phrase of the question. Restricted response type items are very specific in nature. In school and university examinations, restricted response type items are mostly used. Let us discuss a few examples of writing restricted response type of items :

What are the difference between subsistence farming and intensive farming?

Give five ways in which you can save energy at home.

Compare and contrast a weekly market and a shopping complex in view of kind of goods sold, prices of goods, sellers and buyers.

Essay items are used in TMATs like objective items. These items require the students to organize and produce the answer rather than to recognize the answer. The drawback of these items lies in their marking which is highly unreliable. The scoring of both types of essay items varies from evaluator to evaluator and sometimes with the same evaluator when he/she is asked to evaluate the same answer at different time intervals. Therefore, subjectivity in scoring is high in essay type items. Comparatively, scorer reliability is higher in restricted-response type items in comparison to extended response type items. It is because, a clear restriction in terms of word limits, time

given to questions, phrasing the items, etc. are practiced in restricted response type item. According to Singh (1998), one should keep the following points in mind while preparing essay items:

- An essay item must contain explicitly defined problems.
- It must contain such problems whose answers are not very wide.
- Essay items must have clear-cut directions or instructions for the examinees.
- Sufficient time should be allowed in the construction of the essay items.

Check Your Progress 2

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

b) Compare your answer with those given at the end of the unit.

5. Define supply type of objective type test item.

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6. Define selection type of objective type test item.

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7. What precautions should be taken while writing matching type items?

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8. Define restricted response type of essay type items.

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9.5 CONSTRUCTION OF TMAT

In the previous section, you studied about various types of objective and essay type of items. You were also acquainted with different items under objective and essay type of tests. In the present section, we will discuss the processes followed for construction of TMAT. There are five major steps involved in the process of construction of TMAT. They are:

1. Identifying instructional objectives,
2. Making the design,
3. Preparing blueprint,
4. Writing the test items, and
5. Developing marking scheme.

Let us now discuss the above steps in detail.

9.5.1 Identifying Instructional Objectives

The first and the most important step in planning a test is to identify the instructional objectives. Each subject has a different set of instructional objectives. Generally, in the subjects of Science, Social Science, and Mathematics the major objectives are categorized into knowledge, understanding, application and skill, while in Languages the major objectives are categorized into knowledge, understanding, and expression. Knowledge objectives are considered to be the lowest level of learning whereas understanding, application of knowledge are considered higher levels of learning. For detailed understanding of instructional objectives you must read Bloom's Taxonomy of Educational Objectives. For writing instructional objectives, appropriate action verbs should be used. A few examples of action verbs that can be used are : name, list, write, differentiate, compare, contrast, describe, illustrate, define, explain, apply, underline, select, analyse, describe, etc.

9.5.2 Making the Design

The second step in planning a test is to make the 'Design'. The design specifies weightages to different aspects of the test, such as : (a) instructional objectives, (b) types (or forms) of questions, (c) units and sub-units of the course content covered, and (d) levels of difficulty. It also indicates as to whether there are any options in the question paper, and if so, what their nature is.

The design, in fact, is termed as an instrument which reflects major policy decisions of the examining agency, whether it is a Board or a school. A sample format for presenting design of a test is given on the next page (in the sub-section, 9.5.3).

9.5.3 Preparing Blueprint

The third step is to prepare the 'Blueprint'. The policy decisions, as reflected in the design of the question paper, are translated into action through the blueprint. It is the stage where the paper setter decides on how many questions are to be set for different objectives. Further she/he decides under which unit/topic a particular question is to be set. Furthermore, she/he picks up various forms of questions. Thereafter, the paper setter decides how all the questions are to be distributed over different objectives and content areas so as to obtain the weightages decided in the design. The blueprint is basically a two-dimensional chart that consists contents and objectives. Apart from these, form of questions and in terms of marks are also other aspects of blueprint. Once the blueprint is prepared, the paper setter can write/select the items and prepare the question paper. A sample format of Blueprint is given below :

DESIGN

SUBJECT:

CLASS:

THE WEIGHTAGE OF THE DISTRIBUTION OF MARKS OVER THE DIFFERENT DIMENSIONS OF THE QUESTION PAPER SHALL BE AS FOLLOWS :

1. WEIGHTAGE TO INSTRUCTIONAL OBJECTIVES/LEARNING OUTCOMES

S.No.	OBJECTIVES	MARKS	%AGE OF MARKS
1)	Knowledge		
1)	Understanding		
2)	Application		
3)	Skill		
	TOTAL		**100%**

2. WEIGHTA]GHE TO CONTENT/SUBJECT UNITS :

S. No.	UNITS & THEIR SUB-UNITS	MARKS	%AGE OF MARKS
1)			
2)			
3)			
4)			
5)			
	TOTAL		**100%**

3. WEIGHTAGE TO TYPES/FORMS OF QUESTIONS

S.No.	FORMS OF EACH FORM	MARKS FOR QUESTIONS	TOTAL MARKS
1)	Long Answer		
2)	Short Answer .		
3)	Very Short Answer/Objective Type		

- *NOTE: THE EXPECTED LENGTH OF THE ANSWERS OF DIFFERENT TYPES OF QUESTIONS WOULD BE AS FOLLOWS:*

  .....

  .....

This is only an approximation. The actual length, however, may vary. As the total time is calculated on the basis of the number of questions required to be answered and the length of their anticipated answers. It would, therefore, be advisable, to budget time properly by cutting out the superfluous length and be within the expected limits.

S.NO.	TYPE/FORMS OF MARKS QUESTIONS	EXPECTED LENGTH (NO. OF WORDS/ SENTENCES)	EXPECTED TIME FOR EACH QUESTION (MINUTES)
1)	Long Answer		
2)	Short Answer		
3)	Very Short Answer/Objective Type		

*(*Note: Internal Options in Long Answer Questions only)*

BLUE PRINT

EXAM: *Quarterly/HY/Term End* PAPER :

SUBJECT :

UNIT : CLASS :

MAXIUM MARKS : TIME :

OBJECTIVES	KNOWLEDGE	UNDER-STANDING	APPLICATION	SKILL	TOTAL
FORMS OF QUESTION/ CONTENT UNIT	LA SA VSA	LA SA VSA	LA SA VSA	LA SA VSA	LA SA VSA
Unit 1					
Unit 2					
Unit 3					
Unit 4					
Unit 5					
SUB TOTAL					
TOTAL					

***Note:** Please put the number of question within brackets and the marks outside the brackets.*

SUMMARY

EASSY OR LONG ANSWER (L.A.) MARKS:

SHORT ANSWER (S.A.) MARKS:

VERY SHORT ANSWER (V.S.A.) MARKS:

SCHEME OF OPTIONS:

SCHEME OF SECTIONS:

Delete whichever is Not Applicable

9.5.4 Writing the Test Items

The next step, after the finalization of the blueprint is writing appropriate questions in accordance with the broad parameters set out in the blueprint. You should take one small block of the blueprint at a time and write out the required questions. Thus, for each block of blueprint which is filled in, questions have to be written one by one. Once it is done, we have all the questions meeting the necessary requirements laid down in the blueprint. While selecting each small block for writing a question, you can proceed in several ways, like :

a) Either writing all questions (one by one) belonging to one objective at a time i.e. knowledge or understanding or application followed by other objectives, or

b) By taking up questions according to their form or type i.e. Long Answer or Essay Type followed by Short Answer and Very Short Answer Type or in any other order, or

c) By writing questions for one unit of the syllabus or portion to be covered by the test at a time.

Each approach has its advantages and disadvantages, too. Irrespective of the method followed, the questions then have to be arranged in a logical sequence.

9.5.5 Marking Scheme

The fifth step is to prepare the 'Marking Scheme'. The marking scheme helps in preventing inconsistency in judgement. In the marking scheme, possible responses to items in the test are structured. The various value points for response are graded and the marks allowed to each value point indicated. The marking scheme ensures objectivity in judgement and eliminates differences in score which may be due to subjectivity of the evaluator. The marking scheme, of course, includes the scoring key, which is prepared in respect of objective type questions.

The above process is followed to prepare TMAT manually. With the availability of internet, test can also be prepared by using various online evaluation tools. (Refer Unit-8, Block-2 of this Course) Even in various objective examinations, test is conducted manually but scoring is done computerised. For this, the optical mark recognition (OMR) sheets are used for scoring purpose. The OMR sheet is provided to the examines with the question paper. The examines respond to the question in the OMR sheet. But for the simple class test, manual scoring method is used because it covers mostly all type of question papers such as : objective, short answer and essay type questions.

Check Your Progress 3

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

b) Compare your answers with those given at the end of the unit.

9. What are the major steps involved in construction of TMAT?

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10. Define a blue-print.

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9.6 ADMINISTRATION OF TMAT

Having prepared a good test, you should plan to administer it in such a way that each of your students will do their best.

Motivating students is very important, and this is an area in which each teacher will have her/his own special technique. If you can get your students to see this test as an interesting and challenging task, which will benefit them, they will surely do well. Let them understand the advantages of the class test. Make them understand that such tests help them to get a feedback on their weaknesses and the concept that they have not understood; which can be corrected before they face external examinations. Experience has shown that students who are given frequent class tests and are subjected to continuous assessment do better in external examinations.

Some of the values of designing a good test and preparing students well for the test may be lost if you do not plan in advance for its administration. Detailed planning is necessary as any confusion in the administration of a test may disturb the examinee and lower the validity of the results. Some tips to be kept in mind while planning for the administration of a test are given below:

a) Time Schedule

Be sure that time schedule is planned carefully, ensuring teacher and pupil readiness. Much preparation may be done a day before. It will be wise to schedule enough time for briefing the invigilators.

If there is a deadline for finishing the test and leaving the room (e.g., the end of a class period), be sure to plan for adequate time at the end for the things which must be done. Even with a small class these take five to ten minutes, and with a large group they may take little more time. A hasty wind-up may result in non-fulfilment of the objectives of the test.

b) The Room

It is important for any examination to provide a quiet, comfortable atmosphere, in which the students are encouraged to do their best. As much as possible, try to test in a quiet place with a minimum of distracting noises. Avoid rooms near cafeterias, common rooms, playing fields or other noisy places. Request nearby loudspeaker owners to shut them off for the duration of the examination hours. Hang signs on the door, saying ËXAMINATION IN PROGRESS: DO NOT DISTURB". Objective examinations generally require more intense concentration than essay type exams. The latter demand an excess of physical endurance (trying to write fast enough to keep up with one's thoughts). Objective tests require constant, careful and critical thinking and reasoning, with a minimum of physical work.

c) Desks, etc.

Remember that the students will be writing on a single – thick answer sheet, not a thick answer book. Be sure the writing surfaces are at least 30 X 80 cm. and as smooth as possible. If there are cracks or scratches, then a student's pencil may push through the answer sheet, spoiling it and making it hard to mark. Also be sure the room is clear of any charts, posters, etc. that might help some candidates.

d) Equipment

It is wise to make up a check-list, ahead of time, of what you will have to take with you to the examination hall. Be sure to include chalk to write necessary notices on the black board. If there is no black board; then make placards or poster ahead of time. For exact timing of the test (much more important for objective tests), it is better to have two watches or clocks.

e) Invigilators

For anything more that an informal, half-period quiz, you will probably need the help of one or more invigilators. Chose persons who are willing to give their full attention to the task. Neither you nor your invigilators should talk, read, correct papers or do any other work during the examination time. They should observe closely, circulating constantly, checking that the students are answering in the right place, not copying, etc. However, they should not hover too long over any student, as this makes the examinee nervous.

9.7 SCORING AND RECORDING OF TEST RESULTS

Despite the objectivity of scoring short answer tests, certain procedures are indispensable if scoring is to be done with maximum accuracy and efficiency. The necessity for extreme care in scoring has been indicated by several studies showing that scoring errors occur with appalling frequency. "Constant" errors can be due to failure to understand scoring directions, with resultant scores which are consistently too low or too high. "Variable" errors can be due to carelessness in marking, adding, computing, or transcribing scores. These errors warrant (i) the careful training and instruction of scorers, and (ii) the rescoring of at least a sample of any group of test booklets or answer sheets.

9.7.1 Order of Scoring

With essay tests it may be desirable to have one person score all answers to the first question, then to the second, and so on. If, for objective tests separate answer sheets are provided, the scorer may score a given page in all booklets first, then the next page, and so on, rather than scoring all of one booklet before going on to the next. If so many booklets are to be scored that several scorers are needed, each person may specialize on a given page or group of pages of the booklet but should score only one page in all booklets at a time.

9.7.2 Rescoring

With a large number of booklets to be scored and sufficient help available, it is always worthwhile to re-score them so as to eliminate errors that otherwise are almost inevitable in a clerical task like this. If complete rescoring is not feasible, then every fifth or tenth booklet should be rescored to get a rough idea of the frequency and magnitude of scoring errors. Rescoring a sample sometimes uncovers such an inaccuracy as to make it desirable to re-score the remainder.

9.7.3 Keeping Records

As soon as possible after the tests have been administered, the answer sheet should be checked and scored, and the scores should be recorded on the permanent records of the school. Each teacher should be given copies of the score reports for the pupils in his/her classes. Usually schools have some type of permanent record for each pupil which provides space for recording test results.

The form in which test results are recorded is often meaningless to anyone except the persons recording them. Sometimes permanent records for a pupil contain such information as the following

IQ	104	Mathematics	97
Reading	68	Science	93

What do these scores mean? What test of intelligence was used? What was its standard deviation? Are the Reading, Mathematics and Science scores are the raw scores, percentile ranks, or same other type of standard or derived score? Unless the cumulative record contains complete information about the test and the type of score, the effort involved in carrying on a testing program, scoring the tests, and reporting the scores is practically wasted. If the records are to have value, the following must be indicated: test title, form of the test, date when the test was given, the raw score or standard score, and percentile rank under properly identified captions. When percentile ranks are reported, the group on which the norms were based should be identified – for example, national, state, district, local, or other group – and the nature of the group should be specified.

9.8 REPORTING AND INTERPRETATION OF TEST SCORES

After administering and scoring of a test, next step is reporting and interpretation of the scores.

Linn and Miller (2005) say that the evidence of learning and development must be presented on a very brief report form that is understandable to a variety of users (e.g., students, parents, teachers, counselors, and administrators).

In most of the cases, the school policies guide a teacher in reporting the test scores. School grading and reporting systems are designed to serve a variety of functions, like instructional use, report to parents, and administrative and guidance uses.

The focus of the grading and reporting system should be towards the improvement of student learning and development. This is most likely to occur when a report (a) clarifies the instructional objectives, (b) indicates student's strengths and weaknesses in learning, (c) provides information concerning the student's personal-social development, and (d) contributes to the student's motivation. These functions require a much more comprehensive report than the single letter grade.

Informing parents of their children's school progress is a basic function of a grading and reporting system. These reports should help parents understand the objectives of the school and how well their children are achieving the intended learning outcomes of the particular programme.

For administrative purposes, the grades and progress reports are used for determining promotion, awarding honors, deciding scholarship/study grant, determining athletic eligibility, and reporting to other schools and prospective employers.

Interpreting the Results

When interpreting the performance of individual pupils or of a class as a whole, the teacher should take into special consideration on differences in the cultural background of families and communities. There are wide variations in the kind of experiences pupils have. We can expect the differences in language background, richness of home resources, and intensity of the desire for an education which reflected in pupil performance.

Performance of pupils also varies with varying emphasis on different aspects of the school curriculum. In some subject matter areas, such as Arithmetic, the teacher usually cannot expect her/his pupils to go much beyond instructional materials. In other areas such as reading, there are many opportunities for students to develop skill and knowledge on their own outside the school programme. Thus the performance of individuals and groups should be judged, in part at least, on the basis of the curriculum to which they have been exposed. When the performance of a class or an individual deviates considerably from the norms on standardized tests, a need for reappraisal of the school curriculum and of teaching emphases may be indicated.

A final precaution is to avoid using tests to punish pupils or to foster a spirit of rivalry among teachers or schools. Teachers and administrators must keep the welfare of pupils uppermost in their minds and be sensitive to the requirements of adequate human relations. Failure to do this in administering and interpreting a testing program will produce negative feelings about tests in both pupils and teachers.

Check Your Progress 4

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

b) Compare your answers with those given at the end of the unit.

11. What major points need to be kept in mind for proper administration of a TMAT?

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12. Define variable errors in scoring the items.

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9.9 LET US SUM UP

In this Unit, you studied the concepts and procedures of preparing TMAT. TMATs are invariably used by all teachers in all stages of school education. In the beginning we discussed about the concept and purpose of TMAT. Then, we discussed various types of items/questions which are used in an achievement test. You were also acquainted with writing various types of objective and essay type items. Further you acquainted with construction of a TMAT by preparing a design of a test and accordingly preparing a blueprint. We then discussed the administration of TMAT, and their scoring, recording of results, reporting and interpretation of scores. This Unit will further help you to understand Unit-10 of this Block.

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*(**Note :** Partial content in section 9.5, 9.6 and 9.7 of this Unit has been taken from Unit-8 'Achievement Test' of Block-2, ES-333, B.Ed., IGNOU, 2010)*

9.11 ANSWERS TO CHECK YOUR PROGRESS

1. Teacher made achievement tests are constructed by the teacher to assess the learning progress of the students and also to diagnose the learning difficulties of the students.
2. Half-yearly and annual examination question papers.
3. Standardized tests are subjected to follow the procedure of standardization i.e. item analysis, establishing reliability and validity, etc. whereas, teacher made achievement tests are prepared and used by a teacher to evaluate what the students have learned in her/his class.
4. Feedbacks received by using TMAT from the students are also equally help the teachers to review their teaching strategies and modify their teaching.
5. In supply type of items, items are not given options of answers. Students have to recall the answer. Answers in a supply type of items are either in one word, number, term, etc.
6. In selection type of items, options of answers are given with the question. Students have to select the correct answer among the options given. Alternate response type item, multiple response type items, matching type of items are the examples of selection type items.
7. In matching-type of items, the number of responses should be more than the number of premises.
8. In restricted response type of essay item, certain limitations are given to write the answer. The limitations may be in words, sentences, time, and the items are also carefully phrased. Weightage to each phrase of the question is also given.
9. The major steps for constructing TMAT are : identifying instructional objectives, making the design, preparing blueprint, writing the test items, and developing marking scheme.
10. Blue-print is a two-dimensional chart in which weightage are given to objectives, contents, and also to form of questions in terms of marks.
11. Provide proper instruction, proper scoring, verify it by rescoring, recording and reporting results.
12. Variable errors are a type of error which occurs due to carelessness in marking, adding, computing, or transcribing scores during scoring.

UNIT 10 COMMONLY USED TESTS IN SCHOOLS

Structure

10.1 INTRODUCTION

Assessment and evaluation are integral part of teaching-learning process. In the process of assessment of school students, teacher plays an important role. Hence, she/he must be familiar with those tests/tools which are very often used in schools. There are various tools/ tests used in schools in order to get required information from students. It is widely accepted that nature and structure of tests are different with respect to content, learners, context, etc., however, there are some tests which are more or less used in schools.

In this Unit, we will discuss about the commonly used tests in schools. Some of them are achievement, aptitude, achievement-cum-performance test, diagnostic test and remedial activities, oral test, question bank and observation techniques.

10.2 OBJECTIVES

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

- describe the commonly used tests in schools;
- explain achievement and aptitude tests;
- explain the use of the performance based achievement test;
- describe the need and importance of diagnostic testing;
- explain the concept of question bank and its benefits;
- discuss the need of practical and oral tests;
- prepare guidelines for assessing practical work and skills;
- explain the role of observation in peer and group activity; and
- elaborate various techniques of self observation.

10.3 COMMONLY USED TESTS

The primary task of a teacher is to know to what extent a student achieved the desired learning objectives. In order to carry out the above task, a teacher uses certain tests, which are very common in schools. They are :

10.3.1 Achievement Test

Achievement tests play a significant role in the school programme and are widely used at both elementary and secondary levels. Achievement tests attempt to assess what a learner has learned following a specific course of instruction. The very common achievement tests used in the schools are teacher made achievement tests and standardised achievement tests. In such tests, validity is determined primarily by content-related evidence. In other words, these tests are considered valid if they adequately sample the domain of contents (e.g. Mathematics, Science, Language, Social Science) being assessed.

10.3.2 Aptitude Test

Aptitude tests attempt to evaluate a student's potential ability to learn rather than how much she/he has already learned. Unlike achievement tests, aptitude tests evaluate a wide range of experiences obtained in a variety ways. They evaluate the unknown and uncontrolled experiences. The validity of an aptitude test is judged primarily on its ability to predict future performance.

10.3.3 Achievement Test Versus Aptitude Test

There are two major types of ability test which attempts to measure either achievement or aptitude. For the assessment of achievement, we are interested in such questions as "how much does the learner know about Indian History"? or "How well can the learner solve certain types of mathematical problems?' When we focus on aptitude, we are really interested in the student's potential ability to perform a task in the future and want

answer to such questions as "How able is this pupil to perform in subsequent instructional situations?

The following Table summarizes the differences between achievement and aptitude test.

Table 10.1 Differentiate between Achievement and Aptitude tests

Achievement Tests	Aptitude Tests
• Evaluate the effects of known or controlled set of experience.	• Evaluate the effects of unknown or uncontrolled set of experiences.
• Evaluate the product of a course of training.	• Evaluate the potential to profit from a course of training.
• Rely heavily on content validation procedure.	• Rely heavily on predictive criterion validation procedures.

10.3.4 Performance based Achievement Test

Performance based achievement tests are those that require the examinee to perform a task (content related) rather than answer few questions. One feature of performance tests is that they are usually administered individually so that examiner can find out the errors committed by the examinee and can assess how long it takes him to complete the given task. Whatever may be the types of performance test, the common feature of all performance tests is their emphasis on the pupil's ability to perform a task.

Check Your Progress 1

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

b) Compare your answers with those given at the end of the unit.

1. What is the basic difference between achievement test and aptitude test?

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2. How does performance based achievement test differ from achievement test?

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10.4 DIAGNOSTIC TESTING AND REMEDIAL ACTIVITIES

The quality of teaching-learning process depends on the quality of evaluation being carried out in schools. Assessment is a continuous process based on the continuous growth of the child. It, thus, yields a constant flow of feedback both for the student and the teacher for further improving their performance. It covers all the aspects of pupil growth, scholastic as well as co-scholastic domain. One of the major characteristics of assessment is to improve learning through diagnosis and remediation. The need of diagnostic tests and subsequent remedial measures are, therefore, essential component of continuous and comprehensive assessment in the school based assessment. The term diagnosis refers to the process to find out the learning difficulty of individual student and accordingly remedy is being provided.

10.4.1 Diagnostic Testing

In the field of educational evaluation, the term diagnosis is used with regard to assessment and performance of the student. The diagnostic tests are used to discover difficulties encountered by pupils who are failing to make normal progress in school subjects. The diagnostic testing involves not only diagnosing the kinds of difficulties but also their levels of difficulties. It is based upon an analysis of mental process involved in learning a subject, for example, in Mathematics various mental processes involved in computation skills. When a student fails continuously in a particular subject such as Mathematics, Science, Language, etc. then a more detailed diagnosis is necessary to know the difficulties of the student in learning the content material. In that case diagnostic testing needs to be more detailed, in depth and individualised. The aim of diagnostic testing is to determine the cause of learning problems as accurately as possible and to formulate a plan for remedial instruction. Diagnostic test helps to find out the inadequacy in specific skills. The very purpose is to locate the areas in which new innovative additional instruction is required or in which teaching methods have to be incorporated. These tests assist to find out the specific kind of instruction and practice which will be required to achieve the desired learning objectives. The diagnostic assessment, thus, constitutes identification of learning difficulties and helps in planning and providing remedial instruction.

Process of Diagnosing Learning Difficulties

The process of diagnosing learning difficulties involves a number of steps. The first step is observation of the student's behaviour. The next step may be his/her classroom interaction that means the way he/she explains his/her understanding of the concept under a teaching unit. The third step is to ask oral questions about his/her level of understanding. By doing all these activities the teacher may know what is the level of a student's understanding and his/her learning difficulties. The fourth step is testing the learning achievement through a unit test.

Determining who is having Difficulty

In order to determine who is having learning difficulty, we can divide the pupils into two categories: pupils who are having problems in the basic skills

and the content areas; and pupils who are having difficulty in social relations, emotional and personal adjustments. Learning problems of the latter category are significant as they have direct bearing on the pupils learning effectiveness in basic skills. There may be some cases of learning difficulties of specific nature. Informal classroom evaluation procedure can also be used to detect learning difficulties. Rating scales, checklists, anecdotal records and other observational devices also provide clues concerning learning problems. The day-to-day observations and judgments of an experienced teacher are especially valuable because he/she frequently spots a pupil's difficulty before it becomes serious.

Determining the Specific Nature of the Learning Difficulties

In identifying pupils' learning difficulty of specific nature a much closer study of the pupils behaviour is needed. In other cases, it may be necessary to supplement this information by further diagnostic study before planning remedial measures. Still in others, the learning problem may be so persistent and severe that the pupil should be referred to a specialist for intensive assessment of the problem and diagnosis.

Determining the Factors causing Learning Difficulties

Some learning difficulties can be attributed to improper teaching methods, unsuitable curriculum or exceptionally complex course materials. Such instances are easy to detect because a relatively large number of pupils will experience the same difficulty. When this occurs, we should, of course, focus our attention on locating and correcting the shortcomings in our instructional methods and materials. This is one of the major ways in which evaluation results can contribute to improved instruction.

Care is required on the persistent learning difficulties of individual pupils which cannot be accounted for to ineffective instruction. To determine the causes of such problems, we must make a careful study of the pupil and his/her environment. The major areas to consider are the pupil's scholastic aptitude, reading, arithmetic and language skills, work-study skills, health and physical condition, emotional adjustment and home environment. Unfavourable factors in any of these areas might cause or contribute to learning problems.

It should be noted that the causes of learning difficulties are multiple and complex and seldom can be fully determined by the classroom teacher. However, a review of pupil's cumulative record, special testing and observations (as needed), an interview with the pupil and possibly a home visit should provide additional information for diagnosis. If the pupil's learning problem require more extended study, the pupil should be referred to a specialist.

Steps Involved in the Construction of Diagnostic Test

A simple and common framework of constructing a diagnostic test can be given in terms of the following seven steps:

1. Identifying the learning difficulties.
2. Analysing errors.
3. Analysing content.
4. Analysing learning points to be covered emerging from the above.

5. Developing test formats and tryout.
6. Selecting items for inclusion in the test.
7. Assembling the test.

10.4.2 Example of a Diagnostic Test in Mathematics

It is widely accepted that mathematics is a subject in which children tend to commit mistakes. For example, a student of Class IV showed poor performance in mathematical concept of division of numbers. To diagnose the learning difficulty in the concept, the following steps were taken as discussed above. First, it was ensured that the problem exists, then the course content of the difficult concept was scrutinized, analyzed in terms of sub-concepts. It was found that the student showed poor performance mainly with problems related to division. The sequence of the sub-concepts of the concept of division were analysed along with problem situations. It is well known that the process of division requires the knowledge on the process of subtraction, multiplication as well as memory of tables. So the student having difficulty in division might have difficulty in one or more above concepts. In order to know the exact difficulty faced by the student in the process of division a blueprint can be prepared for the construction of the diagnostic test.

10.4.3 Remedial Activities

Remedial instruction through various activities is employed` to remedy or remove the effects ofpoor teaching and learning. It may be concerned with the teacher also who for one reason oranother has used ineffective methods of teaching. It is based upon a careful diagnosis of defectsand causes and aims to correct weaknesses found in the pupil's learning achievement.

In addition to this, the use of the term "remedial" is also employed in a broader sense to connote teaching which is developmental in its scope. There are pupils in our schools, who may not possess any inherent disability which needs correction, but there are pupils who may need assistance urgently in developing increased competence in reading and other fundamental processes. In those cases, it is not primarily a problem of re-teaching or remedying of learning difficulties, but it is rather teaching for the first time these basic skills which are essentially needed and which apparently are lacking. In this sense, remedial teaching involves taking *a* pupil from where he is to greater achievement. It is just good teaching in which the learner and his needs occupy the focal point.

Alternative Remedial Activities for Overcoming the Learning Difficulties

There is no set pattern to be followed in helping pupils to overcome learning difficulties. In some instances, it may be a simple matter of review and re-teaching. In others, an extensive effort to improve motivation, correct emotional difficulties so as to overcome deficiencies in work study skills, may be required. The specific remedial procedures used in any given case will depend on the specific nature of the learning difficulty and the factors which have caused and contributed to it.

Testing and evaluation can play a vital role in most remedial programmes. The use of periodic testing during remedial teaching might serve any of the following functions: (i) inform the pupil the specific types of responses that are expected; (ii) provide further diagnostic information about the pupil's difficulties and learning needs; (iii) give the pupil a feeling of success through the use of a carefully graded series of test and exercises; (iv) motivate the pupil by providing short-term goals and immediate knowledge of progress; and (v) provide information concerning the effectiveness of the remedial procedures. Other evaluation techniques such as rating scales, check-lists, and anecdotal records can, of course, be used to provide feedback on learning progress and the success of the remedial programs.

Check Your Progress 2

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

b) Compare your answers with those given at the end of the unit.

3. What is the need of diagnostic testing?

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4. Mention the steps of remediation.

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10.5 QUESTION BANK

A question bank consists of a series of assessment items of various types. It is a planned repository of test items to be used by teachers, parents, evaluators and students. Question bank is an inbuilt feedback mechanism for improvement of test items. Questions from the question bank are pooled for the measurement of pupils' achievement. Questions from the question bank are used for development for the revision purposes as well as for diagnosing the pupil's difficulties.

When we talk about the bank, we simply understand storage, credit and debit not more than this and that. Question bank refers to a process in which assessment items are systematically retained, stored, restored and whenever there is a need of these items, they are used and reused for assessment purpose. The question bank is designed to fulfill certain predetermined purposes. Its effective and efficient functioning requires genuine cooperative, collaborative and committed efforts. Its major focus

is improvement of teaching-learning process. Questions from the question bank are used for formative as well as summative assessment.

During the transaction of lesson, questions play a significant role from the beginning to the end of lesson e.g. questions have the role from pre-active stage to post-active stage through interactive stage.

Advantages of Question Bank

- Question bank helps in the development of a lesson.
- Question bank helps evaluator for reference purpose.
- Question bank helps in avoiding repetition of questions in specific subjects.
- It saves time, energy and labour in one-way or other.
- Previous questions help teachers, evaluators for preparation of new set of question papers.
- It helps students in self evaluation and peer evaluation.
- It provides wide range of ideas to the paper setter for preparation of questions.
- It helps in finding out the reliability and validity of newly framed questions with response to specific subject.
- It helps in avoiding the repetition of questions from time to time as well as helps to maintain the standard of question papers.

What can be Banked?

- Short questions i.e. objective type questions and structured questions with proper marking scheme.
- Practical examinations, phased practical tests and their component parts can quite readily be banked.
- Assignment can be banked.
- Projects can be banked.
- Any tests or exercise set as part of assessment may be banked.

Check Your Progress 3

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

b) Compare your answers with those given at the end of the unit.

5. What is the utility of question bank in present educational context?

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10.6 ORAL TEST

There is a tradition of oral examination of students for a long time. Students used to go through various oral performance tests like reciting tables in correct way. In oral performance test, how to speak appropriately always matters. Many a times it does not matter what you are speaking rather how you are speaking. It requires speed as well power of speaking/ speech.

Oral questioning is a way to discover the thought process that a student uses in solving problem.

For example, students are asked to form train, bus, temple, arrange small to big of different objects, etc. In pre-school, kindergarten and lower classes probably the oral examinations are often desirable when an evaluator wishes to assess students' ability of integration of knowledge in several areas.

Oral examination/test is a face to face question answer activity between examiner and examinee. It is a time honored form of measurement and mainly used at the university level for examination of thesis, at the early childhood level for examination of content, and at the post-school level for examination of occupational placement. The modes of oral tests are interview, viva-voce, quiz contest, panel discussion. It is also a part of formative and summative assessment.

Objectives of Oral Test

The objectives of oral test are to:

- evaluate the pupils' spontaneity and mannerism;
- evaluate pupils' cognitive, affective and psycho-motor abilities;
- identify and analyse pupils' presence of mind as exposed through oral questioning;
- diagnose pupils' strengths and weaknesses and take remediation; and
- upgrade teaching learning-process.

Limitations

It has several limitations, such as :

- Tests tend to be subjective.
- They are usually unplanned.
- Standard of the test varies with reference to examiner, subject, time, etc.
- Oral examinations are time consuming.
- Test does not work well for the shy students and highly articulated students take advantages of such test.
- Reliability and validity of such tests are questionable.
- It does not cover much content at a time.
- It is usually more time consuming.

Writing as well as speech are the two important vehicles of communication. Oral tests are integral part of school examination system. It is a supplementary tool to the written test. The nature and form of oral test differs from subject to subject, class to class and evaluator to evaluator. Students who have difficulty in writing due to disability or any other reason can be evaluated

through oral test. All subject teachers invariably take help of oral questions for transaction of lessons. Usually oral tests are not standardized tests.

By looking into the response of the examinees, oral test is further classified into two categories i.e.

1. Oral response test.
2. Written response test.

Oral Response Test

In the oral response test, the examiner presents the questions using the spoken word and the examinee responds in the same manner. It can be used in some unique situations where other tests are inappropriate.

Written Response Test

In the written response test, the questions are presented by the examiner using spoken words and are answered in writing by the examines. This test falls somewhere between the classical oral examination (oral-response) and the written examination.

Table 10.2: Differences between oral response test and written response test

Oral Response Test	Written Response Test
▪ Oral mode is used for asking question as well as for giving response. ▪ It is time consuming. ▪ It is more useful for students of lower classes such as pre-schoolers and beginner learners. ▪ It is more useful to get factual information	▪ Writter mode is used for questioning and response is made through writing. It is neither completely oral nor completely written, however, it is in between. ▪ The common example is dictation of words/sentences. ▪ Skill of writing many a times matters in this type. ▪ It is not quite appropriate for the young children or with differently abled children who lack in writing skills. ▪ It does not help to assess the oral communication skill. ▪ It is an easy tool on the hand of teacher to examine the whole class at a time. ▪ There are situations in which this form of test may prove more appropriate than its written examination counterparts : (1) where there is less time to prepare question paper in written form; (2) where there is shortage of resources; and (3) when auditory comprehension is an integral part of the test such as listening. resources; and (3) when auditory comprehension is an integral part of the test such as listening.

Oral Performance Test

Oral performance tests are more or less used in the language and related domain. They focus cognitive, psychomotor as well affective domains. These tests require intellectual exercise. Here students are asked to perform certain tasks/activities such as translation of statement and paragraph from their regional language to English/Hindi; reading the regional/national newspapers with appropriate pronunciation and punctuation.

Check Your Progress 4

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

b) Compare your answers with those given at the end of the unit.

6. Distinguish between oral test and paper pencil test.

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7. Mention a few situations where written response tests are preferred to written test.

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10.7 GENERAL OBSERVATION TECHNIQUES

You have studied observation as a tool in Unit-7 of Block-2 of the course. In this section, you will study peer and group observation activities as well as self-observation techniques. Observation is one of the most widely used techniques, which evaluate various aspects of overt/external human behaviour in controlled or uncontrolled situations. Since it assists for classification and records certain happenings in real life situations by one or more persons, it is termed as an objective technique. Its applicability ranges from most causal experiences to sophisticated laboratory experimentation.

Observation may be considered as 'measurement without instruments'. The act of observation signifies the process of capturing human behaviour as occurring in a particular situation. It is an important technique of data collection which involves watching human behavior and listening to human interaction. Teachers gain the information regarding the educational progress and attainments of their students from many sources and with use of many

tools other than tests. For example, teachers observe informally and almost continuously-what students do and say. Some of the observations are recorded on charts or lists and some are simply stored in memory by teachers for later retrieval.

Purpose of Observation

Basically, observation is a tool of data gathering device. Observation has the following basic purposes.

- One of the major purposes of observation is to capture and study human behaviour as it actually happens. It helps in comprehension of the activities of the persons in real life or social life.
- The other purpose of observation is to provide a graphic description of real life that can be acquired through other ways.
- Another purpose of observation is exploration. When the investigator observes the human behaviour in real life setting, he/she gets a good chance to explore those variables which are important but overlooked. He also develops a tendency to look beyond what is already known about the subject and to examine the probability of some alternative directions for research. Not only that, observation also aims at correction of some methodological errors which otherwise might have been overlooked.

10.7.1 Observation in Peer and Group Activities

Peer observation is an arrangement when students make observation on other students' works. Students can make peer observation on various areas including essays, reports, presentations, performances, projects, dissertations and examinations. Peer observation can play a vital role in formative evaluation and can also be used as a component for summative evaluation, helping to provide the following outcomes.

A few important points about peer observation are:

- Learning by doing (practice, trial and error)
- Learning through feedback (praise, constructive criticism)
- Making sense or 'digesting' what has been learned.

Some Key Points about Peer Observation

- Sometimes students themselves know how well the evidence meets the purposes or criteria designed to specify it.
- The feedback/observation can be anonymous, allowing students a comfortable 'space' to give constructive feedback and receive feedback.
- Each can be adopted to provide formative (i.e., observation 'for' learning) and/or summative (i.e., observation 'of' learning) observation.
- Peer observation can potentially save time and classroom work, because a teacher can receive a clearer or in-depth perspective on the strengths and weaknesses of a student's learning experience and can then hone in on the problem areas.

Purpose and Benefits of Peer Observation

Observation is a basic tool of learning in many occupations and professions, particularly in vocational and technical field, such as business, law and medicines. In teaching, observation provides novice teachers an opportunity to see what more experienced teachers do when they teach a lesson and how they do it. But experienced teachers can also benefit from her fellow teacher by observing how he/she deals with many problems that they face on a daily basis. A teacher might discover that a colleague uses effective teaching strategies that he/she has never tried. Observing another teacher may also trigger reflections on ones own teaching. Observation provides a chance to see how other teachers teach; it is a means of building collegiality in a school; it can be a way of collecting information about teaching and classroom process; it provides an opportunity to get feedback on one's teaching and it is a way of developing self-awareness of one's own teaching.

Peer observation can help teachers become more aware of the issues they confront in the classroom and how these can be resolved. Peer observation can also help narrow the gap between one's imagined view of teaching and what actually occurs in the classroom. By engaging in non evaluative classroom observations, the responsibility of professional development can also shift from other (supervisors, peers, etc) to the individual teacher.

Since observation involves presence of the observer in a colleague's classroom, hence the procedures for carrying out observations need to be carefully negotiated between the participating parties. Having an observer in one's class is always something of a threatening experience because the teacher is now 'on show'. Assigning the observer a non evaluative task goes some way towards minimising the sense of threat, as does pairing teachers by choice and letting them negotiate the goals and procedures for observations.

Group Observation

Like peer observation, the techniques of group observation can also be carried out in the process of teaching and learning as an unique technique of assessment. This can be done when students work in a project jointly or in a type of group discussion or any type of group assignments. The performance of the individual can be better judged when he/she works in group.

Group discussion is an important activity in academic, business and administrative spheres. It is a systematic and purposeful interactive verbal process. Here the exchange of ideas, thoughts and feelings take place through verbal communication. The exchange of ideas takes place in a systematic and structured way. Group discussions are a very important aspect of group communication. Group discussions are a creative and dynamic activity which stimulates reflective thinking among the learners. Group discussions may be defined as an activity in which a small number of persons meet face to face and exchange and share ideas freely or attempt to reach a decision on a common issue. In a group discussion, a learner's thought process is influenced by the views and opinions of the other peer members and vice-a-versa. It also depends on where and in which direction the mood of the discussion moves. In a group discussion, each learner is free to speak his/her views. By observing the contribution of members in the group discussion, assessment can be done.

10.7.2 Techniques of Self Observation

Self observation occurs when a student assesses and makes judgements about his/her own work. Self observation is linked to reflective practice as it involves self development and as such, is an important skill for career development and management. Self observation is helpful for students in the following ways.

- A desire leading to produce a 'want' to learn (intrinsic motivation).
- A need is build up and that make an individual to learn (extrinsic motivation).
- Making sense or 'digesting' what has been learned.

Some Key Points about Self Observation

Self observations are valuable when the evidence to be assessed is intrinsically which is personal in nature. Sometimes students themselves know how well the evidence meets the purposes or criteria designed to specify it. Self observation can assist in deepening the student's own perception of his/her learning style and experience, facilitating amelioration. Self observation can help steer students towards understanding the observation process, helping students take control of their own learning and observation and become more independent learners. Self observation can help students acquire a range of transferable key skills such as self-reflection, time management, organizational and team skills which are highly valued in the workplace and underpin career progression.

Techniques of Self-observation

Self observation is a constant effort of active, objective, intentionally turning a portion of your attention in ward, in order to observe yourself. In a way, it is a practice of observing yourself as if another person, or even a camera or video recorder, might see you. It is simply impartially observing, recording without judgment your thoughts, emotions, feelings, moods, sensations and even movements, tomes of voice, facial expressions and so on.

Self observation, over a period of time will assist one to understand himself/ herself. Self-observation helps to discover a sense of inner freedom. Self observation is a powerful method not only of self study but also of self-change. Self-observation is the best approach not as a technique but rather as an entirely new relationship to oneself as a living and breathing being. Self-observation as described by Gurdjieff (quoted by Denis Lewis, 1993), is an intimate pathway into one's own mind, body and sprit. It allows us to experience new levels of self –awareness and by so doing to live more conscious, harmonious lives. Self-observation is very intimate one, since it gives each of us an opportunity to learn more about ourselves in the most direct way possible. It emphasizes on inner sensitivity, willingness to learn more.

Check Your Progress 5

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

b) Compare your answers with those given at the end of the unit.

8. Describe the benefits of peer and group observation.

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9. Write the importance of self observation for the learners.

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10.8 PRACTICAL TEST

Practical test appraise the performance of learner. It usually focuses on psychomotor skill. The objective of such test is to know the outcome, that's why it is product/outcome/output oriented. Practical test refers to a process in which activities are done systematically in order to get solution to the problem. Practical test is a test which assesses the cognitive, affective and psychomotor abilities. These tests are skill oriented.

As skill is one of the major components of the practical test, a teacher uses various skills such as introducing, questioning, reinforcement, recapitulation, and closer for making teaching-learning process quite interesting. Subjects such as drama, arts and craft, music, tailoring, cookery, wood work, metal work, yoga, games and sports, etc. are considered as practical subjects. This description indicates that one of the major educational objectives of the course of the study is the acquisition and enhancement of certain practical skills.

In pure science subjects such as physics, chemistry, biology and in applied sciences such as engineering technology, computer science, rural technology, agriculture technology, biotechnology, biochemistry there is a need of establishing and illustrating the aspects of subject as well developing necessary and desirable skills which all students of the subjects should be required to possess.

Why Practical Test?

Practical test intends to relate theoretical concepts to practice oriented work. It helps in understanding the theory in a better way and relate the theory in a daily life situation. Practical test involves the application of knowledge and skill for betterment of society.

What are required?

- Experts are required for conducting/administering such test.
- As these tests are more time consuming, more human as well as material resources are required.
- External as well as internal motivations are required for the examinee.
- It requires clear-cut and concrete understanding and patience on the part of the examinee.

Observation and Assessment of Practical Test

The intention of assessment here is to measure the extent to which in a given situation students observe those things which should be observed and make appropriate analysis and interpretation in order that they can subsequently evaluate the results of those observations. Students can be presented with specific observations either as demonstrations or as exercises to carry out themselves, and be required to make their records of what has happened. The assessment will depend heavily on the ability of students to report their observations and it is inevitable that the assessment will often take the form of awarding marks for written records of observation.

Usually there are open-ended questions in practical test. Practical tests more or less require the students to draw conclusions from the practical work. This require an explanation of the process involved or a development of the situation or both

Check Your Progress 6

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

b) Compare your answers with those given at the end of the unit.

10. Why are practical tests necessary?

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10.9 LET US SUM UP

In this Unit, an attempt has been made to discuss the commonly used tests in the schools. First of all, we discussed performance based achievement test and their types. You studied difference between achievement and aptitude tests. You have also studied the use of diagnostic and how the diagnostic test is related to remedial testing. The concept and importance of 'Question bank' has been highlighted. We introduced Oral-testing along with its types. Differentiation has been made between oral response and written response test. Observation technique has discussed in details along

with their types. Where to use the type of observation technique is also part of this unit. Peer observation and Group discussion were also presented. Practical test is also talked about, it explained where to use practical test and for what purpose. We concluded with a description of a technique i.e. Self-observation.

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10.11 ANSWERS TO CHECK YOUR PROGRESS

1. Achievement test requires a content validation procedure whereas aptitude test requires predictive criterion validation procedure. Achievement evaluates the product of a course of training whereas aptitude evaluates the potential to profit from a course of training.

2. Achievement test is important to assess the achievement of the learner. Performance based achievement test is a test under achievement test which requires from the examinees to perform a task rather than answer few questions. Whatever may be the types of performance test, the common feature of all performance tests is their emphasis on the pupil's ability to perform a task.

3. The need of diagnostic testing is to find out the learning difficulties of individual student and accordingly remedial treatment is being provided.

4. The steps of remediation are :

   i. Teaching

   ii. Reviewing

   iii. Testing the weakness whenever they appear

iv. Following up with remedial drill on the specific weakness revealed by the tests.

5. Self Exercise (see content point 10.5)

6. Oral tests are quite flexible, more subjective than paper –pencil test.

7. There are situation in which written response tests may prove more appropriate than its written examination counterparts: (1) where there is less time to prepare question paper in written form, (2) where there is shortage of resources, and (3) when auditory comprehension is an integral part of the test such as listening writing skill is measures by the concerned teachers.

8. Peer Observation can also help narrowing the gap between one's imagined view of teaching and what actually occurs in the classroom. By engaging in non evaluative classroom observations, the responsibility of professional development can also shift from other (supervisors, peers, etc) to the individual teacher.

9. Self observation can assist in deepening the student's own perception of their learning style and experience. Self observation can help students towards understanding the observation process, helping students take control of their own learning and observation and become more independent learners.

10. Practical work intends to relate theoretical concepts to practice oriented work. It helps for understanding the theory in a better way and relates the theory in a daily life situation. The development of practical skill among the learners is felt quite important.

UNIT 11 IDENTIFICATION OF LEARNING GAPS AND CORRECTIVE MEASURES

Structure

11.1 INTRODUCTION

Improving learning levels of students is the utmost challenging task faced by the teachers. In order to bring quality improvement in teaching-learning process, it is essential that the learning gaps of students be identified during the instructional

phase and remedial measures be taken so as to improve the learning levels of students. The existence of gaps in learning can be detrimental not only for students' understanding but also hampers the success of teaching-learning process. The identification of learning gaps/difficulties of students is generally referred to educational diagnosis. The term educational diagnosis includes all activities in measurement and interpretation that help to identify gaps in growth and their causal factors for individuals or for class groups. The process of determining the causes of learning gaps or educational difficulties is known as educational diagnosis.

The present Unit will focus on various aspects of diagnostic evaluation and how such type of evaluation can be used to identify learning gaps or difficulties among learners. In addition, this Unit will throw light on ways and means of providing remedial measures so as to fill the learning gaps in different content areas.

11.2 OBJECTIVES

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

explain the concept of learning gaps and its diagnosis;

discuss the purpose and characteristics of diagnostic tests;

differentiate between diagnostic, formative and summative evaluation;

distinguish between achievement and diagnostic tests;

describe the steps involved in the process of diagnosing and identifying learning gaps;

explain the areas and content of diagnostic testing;

explain the process of remediation and role of teacher in remedial teaching; and

list down the strategies for providing remediation.

11.3 EDUCATIONAL DIAGNOSIS

Educational diagnosis implies the use of more or less technical procedures designed to locate specific learning and instructional difficulties, and to determine their causes. Since student's progress is to be appraised towards desirable educational objectives, it is necessary to identify factors in the teaching-learning situations that may be interfering with optimum growth of individual learner. Apart from an individual's mental or physical abilities, many deficiencies in the student's achievement are due to the simple reason that means a student is not able to keep pace with the teaching-learning process in the classroom or misses an important step due to some reasons. Such deficiencies tend to accumulate with one deficiency leading to another so that a stage comes when learning becomes quite impossible and thus, the student continues to fall back with the learning gap widening more and more. It is here that the teacher is required to know the specific weakness of the student both individually and collectively so as to provide suitable remedial teaching. This process of locating specific weaknesses in the learning of the students is referred to as 'educational diagnosis'.

The diagnosis of difficulties underlying educational accomplishments undoubtedly constitutes the significant stage in the supervisory and instructional uses of educational tests. Educational diagnosis is the educational assessment of students in order to establish possible cognitive, emotional, health, perceptual, social and other factors that might be impacting on their academic achievement and school adjustment. Deficiencies of a general nature are revealed and brought to light by general achievement survey tests. Specific weaknesses, and to a certain extent the causes of such weaknesses, are identified by the use of properly selected or developed diagnostic tests. Practically, all of the more specific diagnostic procedures, such as the location of defects in speech, hearing and vision are dependent upon educational test results at the initial or preliminary stage. It is only after identification of learning gaps or difficulties that effective diagnostic materials in any school subject can be prepared so as to provide remediation. The analysis of diagnostic test results is useful to the teacher to identify the difficulties of the students before they are firmly rooted in the students' thinking and important learning points that carry over into other sections of the work can be clarified and reinforced.

Check Your Progress 1

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

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

1. Write down the meaning of educational diagnosis.

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11.4 SCOPE AND IMPORTANCE OF EDUCATIONAL DIAGNOSIS

Educational diagnosis is not a simple task. This is not only solve the learning difficulties of the students but also, it extends more than that. Educational diagnosis at the early stage in schooling helps the students to undenstand them properly and difficulties for future performaces are some extent eradicated from the beginning.

It is therefore the scope of educational diagnosis extends from teaching - learning situations to other socio-personal adjustment and living one's life. As example, in case the problem started from low performances at the school, it further affects the entire personality of the students. It is therefore the causes of low performance of the students may be multi-farious like related to the person, friends, peers, family, society, schools, teachers, intelligence and abilities of the students etc. Realising the above, the remedies that the students are sugggested not only to study better rather it also cater to develop other related situations where the students live. It is therefore, educational diagnosis understood as present situation in terms of its causes, what has brought it about or in terms of what it will cause. Ross (1956) has suggested the following five levels of diagnosis:

(i) Identify the students to whom the problem lies.

(ii) Identify the problems.

(iii) Why did the problem occur?

(iv) What are the seggested remedies?

(v) How can the problems be prevented?

The first four levels address the corrective diagnosis and the fifth level is preventive diagnosis.

The relevance and importance of educational diagnosis is explained in the following paragraphs:

11.4.1 Analysis as a Basis of Diagnosis

The successful development of school learning difficulties of the students, it extends more than that. depends upon the care with which the underlying and basic skills of the subjects themselves are recognized and utilized in teaching. For instance, teaching a child to add consists not only in developing the habit of responding automatically and correctly to the basic combinations but also involves higher levels of skill such as control of attention span, and carrying from one column to the next. Similarly, silent reading comprehension is not single isolated ability but is composite of knowledge of word meanings, ability to get meanings from sentences, etc. With such knowledge, the teacher has a real basis for instructional procedures. Good diagnosis must parallel the process of good teaching. Effective diagnostic materials in any school subject can be prepared only after the skills contributing to the success in that subject have been isolated and identified.

11.4.2 Diagnosis as the Basis for Remedial Work

Accurate diagnosis of class and individual pupil difficulties, coupled with application of remedy is not only important but necessary for teachers. The success of the remedial or corrective teaching depends upon the accuracy and detail with which the specific skills involved in successful achievement in the subject are identified and isolated in the test. Tests of the general survey type, or tests that report unanalyzed scores, cannot supply this information in sufficient detail.

11.4.3 Diagnosis as the Basis for Preventive Work

An examination of the number and types of skills identified as a result of the diagnostic methods leads to suggestion of a still more constructive use of analytic and diagnostic test results. Diagnosis as applied in education has taken on a meaning indicative of a breakdown in method, a failure of instructional techniques. Unquestionably, one of the basic purposes of diagnosis is the location of weaknesses and the determination of their causes, but there is nothing in the method that preludes its use in the prevention of weaknesses through anticipation of their causes. Out of the knowledge gained through the use of diagnostic procedures should come the basis for preventive work of all types. For example, if after diagnosing the addition of fractions in the fifth grade, it is found that the failure of pupils to reduce the fractions to their lowest terms in the answers is a common weakness, the obvious thing to do so is to correct the defects at once and then proceed to reconstruct the first instruction so that the causes

for this particular weakness may not operate so powerfully in the next grade/ class.

11.4.4 Relevance of Diagnostic Test Results

Tests as such are incapable of improving instruction because of any inherent power. Existing conditions are merely revealed by them. The interpretation of test scores and the planning of remedial procedures are the most difficult and also the most important parts of the use of educational test results. One of the greatest needs in the education today is the provision of genuine diagnostic testing in all instructional fields, supplemented by valid remedial work designed to correct the weaknesses and defects of individual pupils as revealed by the tests.

Check Your Progress 2

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

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

2. Mention two ways in which educational diagnosis becomes important.

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11.5 DIAGNOSTIC TESTS CHARACTERISTICS AND FUNCTIONS

Diagnostic tests are designed to identify strengths and weaknesses of learner's knowledge and use of language. Diagnostic tests are more likely to focus on weaknesses than on strengths. Diagnostic tests should lead to remediation in further instruction. Diagnostic tests thus give detailed feedback which can be acted upon. Diagnostic tests provide immediate results after taking the test. The main purpose of its use is not only to identify the difficulties but also to provide necessary remedial instruction to solve the difficulties.

Cook (1958) has stated the following characteristics of an effective diagnostic test:

(i) It needs to be an integral part of the curriculum.

(ii) Test items require response which are closely associated with the subjects.

(iii) It needs to be based on research evidences of learning difficulties.

(iv) It involves mental processes of the learner to find out the cause of the problem.

(v) It needs to suggest specific remedial procedures for the problem identified.

(vi) It should be designed to cover a long sequence of learning systematically.

(viii) It should enhance pupil's progress in objective terms.

Functions of Diagnostic Test

The functions of diagnostic test covers the entire system of education. The following specific functions are carried out by diagnostic test:

- It emphasises to practice the objectives of the content and curriculum.
- It caters the strengths and weaknesses of the instructional programmes.
- It discovers the inadequacies of the curriculum, contents, pedagogy used to transact it and detail organisation of content and its process of transaction.
- It provides specific educational guidance to the students in the areas of their difficulties and also monitor the progress further.
- It develops a sence of self understanding of the difficulties occur among the individual students and empower them to solve it.
- It provides self satisfaction to the students and accordingly motivate them to study better and also involve actively in other activities conducted in school as well as home situations.
- It also enable students to compare their past performances and present developments.

Check Your Progress 3

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

b) Compare your answers with those given at the end of the unit.

3. Write down any three characteristics of diagnostic tests.

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4. Mention two functions of diagnostic tests.

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11.6 DIAGNOSTIC EVALUATION Vs. FORMATIVE AND SUMMATIVE EVALUATION

In general, diagnostic evaluation focuses on defining a learning problem and taking an action to solve the problem. The term diagnostic evaluation is defined as

evaluation that is used to identify a student's needs and abilities and the student's readiness to acquire the knowledge and skills outlined in the curriculum expectations. It is a key tool used by teachers in planning instruction and setting appropriate learning goals. It involves the process of documentation of knowledge, skills, attitudes and beliefs possessed by the learner. Diagnostic evaluation provides information that is used by teachers and students to determine what students already know and can do with respect to the knowledge and skills identified in the overall and specific expectations. Diagnostic evaluation is an important tool for educators who want to know where their students are academically standing in order to bring those students to where they need to be. It occurs at the beginning of teaching-learning cycle. It provides teachers with information about students' prior knowledge and misconceptions before beginning a learning activity.

In Unit-3, Block-1 of this Course, you have studied details about the placement, formative, diagnostic and summative evaluation. Formative evaluation is an integral part of the teaching-learning process. Formative evaluation refers to frequent interactive assessment of student's progress to identify learning needs and shape teaching. It encompasses classroom interactions, questioning, structured classroom activities, and feedback aimed at helping students to bridge up learning gaps. Students are actively involved in the evaluation process through self- and peer-assessment. Information from external sources may also be used in a formative manner to identify learning needs and adjust teaching strategies. The crucial distinction is that the evaluation is formative if and only it shapes subsequent learning. Formative evaluation is used to measure the student's grasp of small chunks of information. A formative evaluation helps to identify gaps in learning and/or instruction before subsequent material is presented. Such type of evaluation drives learning and instruction by providing immediate information to the teacher and students.

Summative evaluation forms an end point that sums up the performance or learning level of achievement. Summative evaluation provides a look at students' performance as well as an opportunity to evaluate instructional practices. The term summative evaluation generally refers to assessment of learning at the completion of a larger instructional programme. For instance, term-end examinations or semester end examinations are all summative evaluation. However, some interim tests may be considered summative in nature because they measure performance at the end of an instructional programme.

The main differences between diagnostic, formative and summative evaluation are as follows:

Diagnostic evaluation is made to determine what a student does or does not know about a topic. It is concerned with the pupil's persistent or recurring learning difficulties that are left unresolved during the course of classroom teaching and formative evaluations. If a student continues to experience failure in mathematics as measured through formative evaluation techniques, it calls for a more detailed diagnosis of his/her learning difficulties. In medical language, formative evaluation provides first aid treatment for simple learning problems and diagnostic evaluation searches for the underlying causes of those learning problems that remain unresolved by first aid treatment. Whereas, diagnostic evaluation occurs at the beginning of the teaching-learning cycle, formative evaluation usually occurs during instruction and summative evaluation occurs after the end of the instructional process.

Summative evaluation is designed to determine how well learning objectives are met. Its results are typically used for grading or certifying students, judging the effectiveness of the teacher and sometimes evaluating the curriculum. On the other hand, the results of diagnostic evaluation are employed for identifying specific learning gaps of students and providing corrective measures for improving learning among students.

Check Your Progress 4

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

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

5. Mention two differences between formative and summative evaluation.

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11.7 DIAGNOSTIC TESTING

Diagnostic testing is a process of carrying out evaluation of students' knowledge and skills so as to identify their specific learning gaps. In diagnostic testing, standardized and teacher made diagnostic tests are used. Diagnostic testing is often used to determine why students is having difficulty despite the use of alternative methods of instruction. The testing process determines students skill deficiencies or learning gaps. The initial diagnostic testing results serve as a baseline to determine progress based on future testing. Diagnostic testing is carried out to guide attainments of pupils, identify difficulties of pupils and for dividing pupils into groups for remedial instruction. This testing help inform the teacher about the level of student knowledge prior to instruction, so that instruction can be tailored to the existing knowledge base. Also, this pre-instructional testing provides information that can be compared to post-instructional testing for the purpose of determining growth. The major instrument for undertaking diagnostic testing is 'diagnostic test' based on particular content and can be a standardized one or a teacher made.

A diagnostic test measures where students are in terms of their knowledge and skills. It assesses the abilities that students have at a particular time to solve problems or answer questions in a subject area. Diagnostic tests can be especially beneficial for teachers who have multiple classes to teach within one subject. A diagnostic test is useful if a teacher uses it more than once throughout the school year. Given at the beginning of the year, it can help the teachers to plan his/her instruction. At the mid year, he/she can determine how many students have learned so far and what he/she needs to review. At the end of the year, a summative test can provide an assessment of a student's total learning for the class. A diagnostic test can show how much students have progressed in their knowledge of a subject. A diagnostic test is primarily used to discover learners' strengths and weaknesses and provide detailed feedback for both teachers and learners to make decisions. The essence of diagnostic testing lies in a comprehensive and creative feedback system for the students and the teachers.

11.8 ACHIEVEMENT TESTS Vs. DIAGNOSTIC TESTS

An achievement test measures the degree or extent of the knowledge, information skills, and competencies that a pupil has acquired through training, instruction or experience. These tests are used to measure the relative accomplishment of pupils in specified areas of learning. From the point of view of diagnosis, the total score on an achievement test is not of any valuable help. Achievement test results reveal difficulties only when they are originally designed for diagnostic purposes. Achievement tests cover the whole unit, lesson or specified content area and are used for grading and comparing the students with each other.

On the other hand, a diagnostic test is an achievement test used to identify the strengths and weaknesses of the students. Such tests include a wide range of items on a given skill or objective. The purpose of a diagnostic test in education is to assess the current state of a student's progress or ability in a particular area.

The main differences between these two types of tests are summarized in Table 11.1:

Table 11.1 : Achievement vs Diagnostic Test

Sr. No.	Achievement Test	Diagnostic Test
1	A test designed to assess the achievement in any subject based on a set of objectives.	A test designed to solve the exact difficulty faced by learners in achievement test.
2	Covers wide content area.	Focus on specific difficult content area.
3	Includes complex items.	Includes simple items.
4	Total score on test is important.	Scoring may not be done. Specific errors are identified.
5	Quantitative in nature.	Mostly qualitative in nature.
6	No attention is paid to minute details of students' responses.	Attention on minute details of students' responses is paid.
7	Follows a fixed time limit.	No time limit for completion.
8	Follows norms for interpretation of scores.	No norms are set or followed.
9	Specified number of test items.	Test items are repetitive on specific difficult content area.

11.9 DIAGNOSING AND REMEDYING LEARNING DIFFICULTIES: STEPS INVOLVED

For diagnosing and providing remediation, the following steps are involved:

1. To identify the individual student or group who has learning difficulties.
2. To identify the specific nature of learning difficulties lies with the stundents.
3. To determine the necessary factors responsible for the learning difficulties.
4. To provide suitable remedial measures for solving the learning difficulties.

11.9.1 Identify Individual Student/Group having Learning Difficulties

There are a number of methods for identifying those pupils who are experiencing learning difficulties. The most common way is to observe/analyse the results of achievement tests. In some cases, it is desirable to analyze an achievement test item by item and make a tally of those missed by each pupil. Items which are missed by a large number of pupils indicate areas where the class as a whole is doing poorly. The errors of each individual pupil can also be studied for clues to his/her particular learning difficulties. Informal classroom evaluation procedures can also be used to detect learning difficulties. Anecdotal records, day to day observations, and judgements of experienced teachers may also prove to be valuable in identifying pupils with learning gaps or difficulties.

11.9.2 Identifying the Specific Nature of Learning Difficulty

The diagnosis of learning difficulties is a matter of degree. In some instances, the general procedures for locating pupils with learning difficulties provide sufficient information for immediate corrective action. In other cases, it may be necessary to supplement this information by further diagnostic study before planning remedial work. In still others, the learning problem may be so persistent and severe that the pupil should be referred to a specialist for intensive diagnosis. When a pupil's learning difficulty is in one of the basic areas, a logical follow-up procedure is the administration of diagnostic test. Sometimes, an achievement test is administered and procedure of analyzing pupil's responses to each test item is followed. Another approach is to ask the pupils to describe aloud the mental process they follow as they answer each question. The 'thinking aloud' provides clues to the pupil's weakness in knowledge, skill and method of approaching problems. Clues concerning the specific nature of pupil's learning difficulties might also be inferred from his/her cumulative record.

11.9.3 Determining the Factors Causing Learning Difficulties

There are multiple factors causing learning difficulties. Those factors sometimes may be related to the curriculum, teaching-learning practices and school management whereas many a time socio-cultural setup of the learners, family and friend and also the learner him/hereself becomes the cause of the learning difficulties. The methology used in teaching, physical and emotional status of the learner, relation with teachers and other academic endeavours in the school also

become the reasons for learning difficulties. For determing the causes of learning diffiulties pupils commulative records are analysed, special tests are taken, interviews to the parents, teachers peers, etc. are conducted.

11.9.4 Applying Remedial Measures

After identifying the causes of learning difficulties suitable remedial measures are provided to the learners. Providing remedial measures mean to take steps for solving the learning difficulties. Remedial measures can be in form of proper counselling of the students, remedial teaching, physical and mental treatment of the learners, studying the attitude and changing attitude of the students etc. This can also equally applicable for the teachers to re-design their teaching in terms of using suitable methods and techniques of teaching, dealing students cordially and developing good inter-personal relationship with the students.

Check Your Progress 5

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

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

6. List down the steps involved in diagnosing and remedying learning difficulties of students.

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11.10 AREAS AND CONTENT OF DIAGNOSTIC TESTING

The analysis, identification and measurement of abilities that underline and cause educational achievement unquestionably constitute the significant stage in the use of tests in educational practice. Some important areas that constitute the content of diagnostic testing and remedial teaching are discussed below:

Intelligence: Intelligence tests are incapable for securing a direct measure of capacity unaffected by experience and training. These tests provide the basis for inferences about the equipment from the amount of learning that has taken place under certain conditions. The value of the intelligence tests, carefully used and critically interpreted, constitutes an effective and useful instrument for classroom diagnosis.

Personality: Personality of an individual includes attitudes, interests and emotional adjustments, all of which are important considerations in the classroom. Personality inventories and scales afford evidence of types not realized from

intelligence or achievement tests which teachers should find valuable in the guidance and adjustment of their pupils.

Achievement in Specific Subjects: It is now possible to evaluate achievement and to diagnose difficulties with accuracy in certain subject areas like, arithmetic, spelling, reading, etc. These subject areas lend themselves well to analysis and identification of specific skills and thus ultimately to diagnosis. On the basis of such diagnosis, remedial work can be planned by the teacher to fill the learning gaps.

General Educational Achievement: While the emphasis is somewhat more on the measurement of the specific rather than the general aspects of school accomplishments. There is a recognizable need for the measurement of the latter. For general survey purposes, evaluation of curricular content, and for later individual detailed diagnosis, such general achievement tests are valuable.

Check Your Progress 6

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

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

7. Elaborate any one area connected with diagnostic testing.

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11.11 REMEDIATION

In the previous sections, we have learnt that the essential steps in educational diagnosis are; (i) identifying the students who are having trouble or need help, (ii) locating the errors or learning difficulties, and (iii) discovering the causal factors for learning difficulties. After locating learning difficulties and discovering their causal factors, the next crucial question is "what after this diagnosis?". The follow-up after such educational diagnosis leads to actions that may help children make up their deficiencies. This step is generally termed as 'Remediation' or 'Remedial Teaching'. During the process of remediation, a teacher is expected to devise some strategy to remove problems in learning and the causes due to which the learner has faced the difficulties. The strategy used by the teacher to remove the learning gaps of the learners is known as remedial teaching. Diagnostic testing leads to remedial teaching in which a teacher is required to prepare instructional material for quality learning and adopting different methodologies as per needs of the learner or a particular group. The ultimate aim of remediation or remedial teaching is to help pupils who have fallen behind to learn to the best of their ability and to bring them back into the mainstream of teaching-learning process as far as possible.

The word 'remedial' means 'to rectify, improve or remedy something.' Remedial teaching is teaching which is designed to bring students who are lagging behind up to the level of achievement realized by their peers. Remedial teaching means necessary learning support will be provided to pupils who need pedagogical or didactic assistance. There are often children who receive at a lower grade because of certain learning or behavioural problem/disorder. However, remedial teaching can also be offered to pupils who achieve at a higher than average level, but the nature of remediation differs.

Generally the following procedures are followed to do the remedial teaching. They are:

– Set objectives as per the nature of difficulties.

– Teach using specific methodology and techniques.

– Get feedbacks from the students and find out the weaknesses.

– Reteach the same with modification assessment.

– Assessing the final performances.

Principles of planning remedial teaching by the teachers:

(i) Ensure good physical condition of the learners before remedial teaching.

(ii) Discuss with the parents and seek their cooperation.

(iii) Analyzing specific strengths and weaknesses of the child and accordingly deal each students as per their abilities.

(iv) Discuss with the child about his/her problem and tell him/her to findout the solution.

(v) Teach learners as per their standard and involve them in self, peer and group activities to solve their difficulties.

(vi) Individualised remedial teaching may be provided subject to the need of the students.

(vii) Feedback techniques need to be applied so that the learners will realise their improvement in learning.

(viii) Teacher made or standardised tools can be used to know the progress of the students.

(ix) Commulative records of the learners may be prepared to know the nature of difficulties, treatment given, and progress noticed.

As a teacher, one must keep in mind that most of the learning difficulties pupils encounter may not be within the pupil, but are relative to the context where the learning is taking place, such as the family background of the pupil, the physical and learning environment of the school, and the pupils' peer groups. Once this is understood by a teacher, he/she will begin to view the pupils from a different perspective and try to accept their learning difficulties as a transient and soluble problem.

11.11.1 Role of Teacher in Remedial Teaching

In remedial teaching, teacher's main duty is to work very closely with the principal, students, teachers and the rest of the staff. The teacher provides remediation for students who are struggling in certain specific academic areas. Teacher works cooperatively and create activities based on the curriculum that

will help the remedial students. In remediral teaching, teacher manages students' records in a timely and appropriate way. Teacher works with the students who have difficulty in learning and retaining the information. Before preparing for their lessons, teachers should identify pupils' diverse learning needs as soon as possible so that they may design appropriate teaching plans to facilitate pupils' effective learning. A teacher has to perform the following functions while planning and organizing a remediation programme for students with particular learning gaps:

To provide pupils systematic training to develop their generic skills, including interpersonal relationship, communication, problem-solving, self-management, self-learning, independent thinking, creativity and the use of information technology;

To devise various learning activities and design meaningful learning situations. Give concrete examples before proceeding to abstract concepts by way of simple and easy steps at a pace in line with the learning abilities of students;

Provide pupils clear instructions to avoid confusion, summarize the main points and encourage pupils' active participation in class activities;

Show concern for the performances of individual pupils;

While assigning home work, teacher should keep in mind that the homework should have clear objectives that can accommodate the level and needs of pupils;

Prepare a rich, pleasant and comfortable learning environment for pupils;

Display teaching materials of the week or the learning outcomes or products of pupils at prominent places to stimulate their motivation in learning.

Selecting instructional material for remedial teaching is also another important concern for the teachers. A major problem in remedial instruction is the dearth of effective instructional materials. Most of the published materials have been designed for group instruction. Only a small percentage can be adapted for individual instruction. If the material is graded carefully and provided for ample practice on each of the basic steps, the teacher can adapt it for individual use by providing self-directive instruction for pupils.

11.11.2 Strategies adopted for Providing Remedial Teaching

Following strategies can be employed by the teachers to provide remedial instruction to the students for removing learning difficulties:

Individualized Education Programme (IEP): Individualized educational programme aims to reinforce the foundation of learning, helps pupils overcome their learning difficulties and develop their potentials. Individualized educational programme should include short-term and long-term learning objectives, learning steps, activities and reviews to ensure that the programme is implemented effectively. Teaching can be done in small groups or for individual. Teachers should hold meetings regularly to evaluate the effectiveness of work and gather opinions for refinement.

Peer Group Learning: Teachers may train up students who perform better in a certain subject to become a trainer and will be responsible for helping

schoolmates with learning difficulties in group teaching and self-study sessions as well as outside class. Peer group learning helps pupils reinforce their knowledge, and develop their communication and cooperation skills as well as good interpersonal relationship.

Provision of Rewards to the Students to Enhance Pupils' Motivation: The reward scheme has positive effect in enhancing pupils' motivation. It aims at guiding pupils to set their own objectives and plans, and positively reinforcing their good performance. The teacher should set clear and achievable objectives. The rewards should be changed and possess variability in order to maintain their acceptance and strength in sustaining the interest and motivation among students.

Apart form these, making close liaison and coordination with the parents and maintaining close contact with other teachers to discuss experiences need to be encouraged.

Check Your Progress 7

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

b) Compare your answers with those given at the end of the unit.

8. Define remediation.

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9. List down any two strategies for providing remedial help to school children.

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11.12 DIAGNOSTIC TESTS AND REMEDIATION : A FEW EXAMPLES

Because of learning differences, children absorb knowledge at different pace and grasp concepts in their own time frames. Some children learn mathematical, spelling and reading skills with very little teaching and others need remedial help with it. Diagnosis relates primarily to such questions like; Why Arti got a low score on a test of arithmetic? or, Why Ramesh got low score a test of spelling? What are the sources of difficulty? For getting answers to such questions, diagnostic testing is carried out by the teachers generally on an individual basis so that remediation could be planned. Decisions relating to remedial teaching constitute one subset of instructional decisions. The foundation upon which any

programme of diagnostic testing and remedial teaching is built is a thorough and precise analysis of the skills that are required to achieve the desired instructional objectives. In the following paragraphs, we will discuss diagnostic testing and remedial teaching in basic fields of mathematics, spellings and language reading.

11.12.1 Mathematics

Consider the performance of students on an informal test of subtraction administered to a group of seven years old. The teacher has marked all those items where a particular pupil has made mistakes and has concluded, after study of performance and questioning, that the child has been confused by the presence of noughts (number '0'). Similarly, at a more advanced level, an older pupil has reached a wrong answer when simplifying an algebraic expression which involves factors and fractions. Here the teacher observes that an error has been made when factorising the expression x^2+ax+b. If this type of error is to be repeated in similar items, a clear diagnosis with implied remediation would be made. At this stage, source of difficulty rather than interpretation of the problem is the goal of the analysis. In both these examples, teachers are likely to find skill analysis much easier to perform than task analysis since it is necessary to build a model of structure to carry it out. Skill analysis can be carried out most easily in school subjects where criterion of correct/incorrect can be applied or where the performance varies along a continuum of 'good to poor'. The principal purpose of this kind of analysis is to discover learning problems, followed by constructive attempts to remediate performance, not to 'bind the pupil down'. So, there is no real need to cover the pupil's work with actual 'corrections' to fulfil the aim of analysis. Below are five methods which the teachers, parents, and others can use to help students with mathematics.

Manipulatives: Mathematics skills, such as addition, subtraction, division, and multiplication are learned with good understanding through the use of manipulatives like blocks, marbles, abacus, discs, cards, cups or even beads.

Drawing: An effective way to learn mathematics skills is through the use of mathematical pictures that are drawn out by the child. One good exercise is asking the student to draw five circles on a sheet of paper. Then ask the student to cross out two circles or add two more. This visual exercise helps the students learn subtraction and addition.

Shopping: There is a plethora of learning while shopping in a market. Mathematical skills ranging from weighing produce, counting money, selecting products according to their weight and size, determining how much each item costs per kilogram can be learnt through shopping activities. Teachers can use project method in this regard to acquaint students with basic mathematical skills among students.

Structured Pattern in Teaching-Learning: Some children learn best by having a very structured pattern to follow for each problem. A remedial mathematics teacher can show the pupil, the steps for solving each problem one at a time. Many children enjoy this structured pattern of learning, as it is broken down into easy pieces.

Mathematical Games: It is no secret that children love to play games. Today, you can find many mathematical games in concrete form and also available in

the computers. Mathematical skills, such as time telling, addition, subtraction, multiplication, division and more engage the student's interest so that they are more likely to retain the knowledge that they have learned through such games.

11.12.2 Spelling

Spelling tests and scales offer valuable sources of material that may be used to determine both the students present status in spelling and their growth in accomplishment as a result of period of instruction. If scales based on a sound philosophy of subject matter content are used, they provide the most effective materials for the identification of spelling difficulties of individual pupils. Remedial procedure in spelling may be undertaken directly in connection with teaching. The words misspelled by pupils in their spelling lessons and tests are obviously the words to which they should give special attention. Each pupil should be encouraged to keep an individual list of such words and should be stimulated to master them. Occasional spelling periods should be put aside for studying and testing these individual lists. Written work in all subjects should be carefully checked for spelling errors. The important thing is that the learning situation be so manipulated that the pupil will want to learn to spell and to feel the need for learning the meaning and spelling of words that are pertinent to his/her written work. Any spelling test must reveal to the pupil his/her particular weaknesses that resulted in low score. This diagnosis of particular weaknesses in spellings should function as a basis for remedial instruction.

11.12.3 Reading

If a child has problem with reading, it is very essential to directly help him/her develop proficient reading skills. The following points should be taken into consideration while providing corrective measures to remove reading difficulties of the students:

Evaluate the student and identify the specific reading deficiencies.

On the basis of the study, prepare a suitable plan to address the reading difficulties.

Effectiveness is key to successful remediation. The students need to be helped to use proper phonetics, pronounciation, homophones, etc. In case errors noticed they should be practiced the some under observation.

The remedial treatment needs to be continued till the specific skills the students attend.

This can only be possible through direct interaction and instruction.

Model phonetics and audio-video materials on phonetics can also be used for validating and making the students learn the right phonetics.

Skill of reading is also associated with other laguage skills. It is therefore other skills are also necessarly to observe when practicing reading skills. That also comes in the purview of remedial instructing in reading.

Mostly, it should be practical through individualised instruction.

11.13 LET US SUM UP

In this Unit, we started our discussion with educational diagnosis and how this process is carried out for identifying learning difficulties and providing corrective measures. The concepts of diagnostic, formative and summative evaluation were discussed in details. In order to improve the learning levels of the students, the role of teacher in identifying learning difficulties, locating its specific causes and designing corrective measures is of vital significance. The teacher can adopt various methods and strategies in providing remedial instruction to the learners facing various learning difficulties. In the last part of the Unit, some illustrations of providing remedial teaching in the content areas of mathematics, spelling and reading were explained so that you may have certain basic understanding about implementation of remedial teaching in school situations.

11.14 REFERENCES AND SUGGESTED READINGS

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11.15 ANSWERS TO CHECK YOUR PROGRESS

1. The process of identifying specific weaknesses in the learning of the students is referred to as 'educational diagnosis'.

2. Educational diagnosis acts as a basis for providing remedial work and also acts as a base for undertaking preventive work so that learning difficulties may not occur in future.

3. Diagnostic tests are designed to identify strengths and weaknesses of learner's knowledge and use of language. Diagnostic tests are more likely to focus on weaknesses than on strengths. Diagnostic tests should lead to remediation in further instruction.

4. Self exercise (refer content section 11.5)

5. Formative evaluation focuses on the process while summative evaluation pays attention to the product. Summative test provides students with a score but they don't offer any diagnostic information about how to improve their study. On the other hand, students receive informative feedback from a formative test which can help them to improve their learning.

6. The steps employed in diagnosing and remedying learning difficulties are:

   (i) Identify the students having the learning difficulties.

   (ii) Identify the nature of problems.

   (iii) Determine the factors respossible for the problem.

   (iv) To provide suitable remedial measure.

7. One of the areas of diagnostic testing is personality. Personality of an individual includes attitudes, interests and emotional adjustments, all of which are important considerations in the classroom.

8. Remediation means to bring students who are lagging behind up to the level of achievement realized by their peers.

9. Self-exercise.

UNIT 12 CONTINUOUS AND COMPREHENSIVE EVALUATION

Structure

12.1 INTRODUCTION

Evaluation is concerned with all round development of student's personality. Students will be assessed not only in terms of their knowledge about a subject but also their participation in other areas of knowledge. We assess student's achievement basically in two areas: scholastic and co-scholastic. Vigotsky's concept of constructivist approach to learning emphasizes assessment is not mere assessing the achievement of students rather helping them to enhance their learning. The critical role of assessment is not limited only to assessing the achievement of students rather helping them acquire knowledge and experiences and achieve better understanding of subject contents. You have studied the concept of 'assessment for learning' in Unit-1 and 2 in Block-1 of this Course.

Assessment is a continuous process and an integral part of teaching-learning process. Their function of assessment is not only to assess the abilities of the students continuously but also to assess their total personality comprehensively, which includes their abilities in scholastic and co-scholastic areas. For assessment of abilities of students from a holistic perspective,

the system of continuous and comprehensive evaluation (CCE) has been implemented in our school system.

The present Unit focuses on the concept and functions of continuous and comprehensive evaluation. The techniques of assessment used in CCE for assessing scholastic and co-scholastic abilities of students have been discussed in this Unit. The Unit also focuses on the importance of recording and reporting students' progress and performances. The role of students profile and their cumulative record in the process of assessment has also been discussed in this Unit.

12.2 OBJECTIVES

At the end of this Unit, you should be able to :

- explain the concept of continuous and comprehensive evaluation;
- describe the functions of CCE in the process of learning and teaching;
- critically analyse the assessment techniques used in CCE for assessing scholastic and co-scholastic abilities of students;
- discuss the use of progress report, student profile and cumulative record used in CCE;
- highlight the importance of maintaining records of evaluation of individual students;
- prepare different forms of CCE for assessing students' performance; and
- prepare and interpret progress reports of students both in scholastic and co-scholastic areas.

12.3 CONTINUOUS AND COMPREHENSIVE EVALUATION : CONCEPTS AND FUNCTIONS

In Units1 and 2 of Block-1 of this Course, you have studied the purpose of assessment and evaluation. It is not only to grade and certify the learners but also to improve the teaching-learning process and the learning resources used in the process of teaching and learning. It also helps the students to enrich their understanding and enhance their learning. This is not possible by conducting a single terminal or a few paper-pencil tests. You have studied that the role of assessment is not by to assess the content knowledge or the achievement of students, but also to assess the total personality of students. National Curriculum Framework (NCF, 2005) has clarified that apart from assessing knowledge of the core content areas of the school curriculum, assessing other areas of performances of the students such as : art and craft education, physical and health education, peace education, etc. are equally important. For this, our assessment system should be continuous and comprehensive. In this section, let us understand the concept of continuous and comprehensive evaluation and its functions in the overall assessment processes in the school.

12.3.1 What is Continuous Evaluation?

Continuous refers to regular. It means, to make assessment a regular activity in the teaching-learning process. You might have been acquainted with the traditional system of assessment in the schools. In traditional system of assessment, one or two examinations are conducted in a year to assess the content knowledge of students and on the basis of that, students are awarded marks or grades, which hardly help the students to enhance their knowledge. In the continuous assessment, students'performances are assessed formally or informally. It continues along with teaching. Teacher uses many techniques like observation, interview, self and peer-assessment, group-work, projects, etc. To assess the performance of students. Assessment is integrated in the teaching-learning process and conducted through unit, quarterly, half-yearly and annual tests.

The main objective of continuous assessment is to engage the learners regularly in their studies and help them to understand their progress in learning. The following are the four components of continuous assessment. They are :

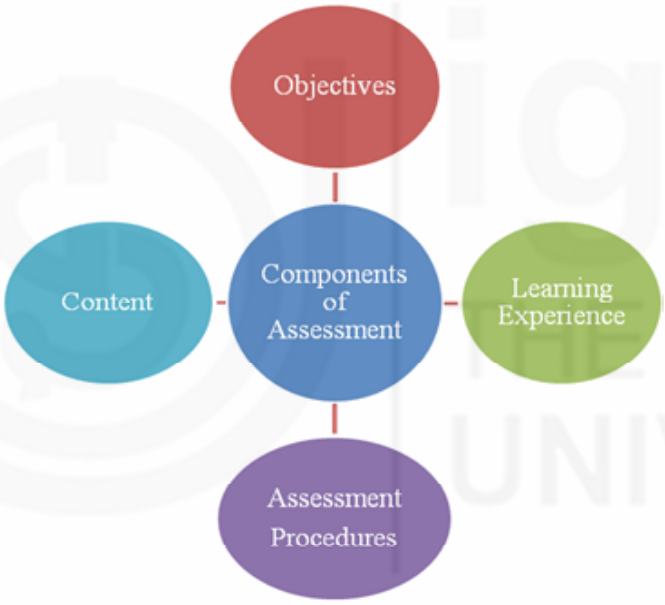

Figure 12.1: Components of Continuous Assessment

The inter-relationships amongthe four components of assessment that is objectives, content, learning experiences and assessment procedures clearly indicate that one component is dependent on other. In continuous assessment, teacher is concerned with whether the learning objectives have been achieved or not? Whether the students have achieved mastery of the content or not? Whether the students have received required learning experiences or not? And finally,how far the assessment has helped students enhance their learning. These are possible if you integrate assessment with teaching and engage students in various learning activities. It is necessary for the teacher to determine student's status in the beginning of course (placement evaluation), at periodically interval (formative and diagnostic evaluation), and at the end of academic year (summative evaluation).

Continuous assessment is necessary if teacher intends to change teaching strategies in order to improve the learning behavior of students and provide

them meaningful learning experiences. Let us now understand what comprehensive evaluation is.

12.3.2 What is Comprehensive Evaluation?

Comprehensive evaluation takes care of assessment of all round development of student's personality. The purpose of assessment is not only assessing knowledge of students in a core subject that he/she studies but also assessing his/her participation in other areas of knowledge such as art and craft education, health and physical education, peace education, life skills, etc. Broadly, we assess student's development in two areas – scholastic and co-scholastic. Though NCERT considers all the school based activities are scholastic activities, still for your understanding we can say that the activities based on core subjects taught at the schools constitute scholastic areas and other co-curricular activities comprise co-scholastic areas. The term 'scholastic' refers to those aspects which are related to intellectual exercise of the students in curricular subjects. They include assignment, practical, projects, and different types of tests conducted in schools. The components of assessment covered under co-scholastic areas are life skill development of students, their attitudes, self-concept, personality, socio-cultural development, emotional intelligence, and developments in the areas of art, crafts, health, physical education, yoga and peace education, etc. Developments in curricular areas and co-curricular areas constitute holistic development of the students.

Therefore, comprehensive evaluation includes assessment of abilities in both scholastic and co-scholastic areas. A variety of tools and techniques are used for assessing abilities of students in co-scholastic areas. The tools such as interview, observation, rating scale, checklists, attitude scales, etc. are used for comprehensive evaluation of students. In comprehensive evaluation, different abilities of students in scholastic and co-scholastic domains are evaluated by using the following tools and techniques :

Table 12.1 : Tools and techniques used in evaluation of different areas of scholastic and co-scholastic domains

Domain	Areas	Techniques of Evaluation
Scholastic	**1. Curricular Areas** - Knowledge - Understanding - Application - Skills	- Written - Oral - Practical
Co-scholastic	**2. Physical health and yoga education** - Basic understanding about health - Yoga - Physical fitness	- Exercises - Medical check up - Observation by teachers

	3. Habits - Health habits - Study habits - Work habits	- Observation
	4. Interests - Literary interest - Artistic interest - Scientific interest - Musical interest - Social interest	- Observation
	5. Attitudes - Attitude towards studies - Attitude towards teachers - Attitude towards self - Attitude towards peers and friends - Attitude towards schools - Attitude towards society	- Observation
	6. Life skills and values - Self awareness - Effective communication - Critical thinking - Decision making - Coping with emotions - Coping with stress - Empathy - Inter-personal relationships - Creative thinking - Problem solving	- Observation
	7. Participation in other activities - Games and sports - Literary and scientific activities - Cultural, social and community service activities	- Observation

*(**Source** : ES-333, B.Ed., IGNOU, 2010)*

12.3.3 Functions of Continuous and Comprehensive Evaluation

In the previous sections, you learnt the concepts of continuous evaluation as well as comprehensive evaluation. Continuous and comprehensive evaluation means carrying out assessment of students abilities continuously through different tests such as unit test, half-yearly test and annual test and these tests would focus on cognitive, affective and psychomotor domains. It includes assessment of abilities of the students in both scholastic and co-scholastic areas. In this section, let us understand the uses and functions of continuous and comprehensive evaluation.

- It helps the teacher to organize effective teaching strategies. Continuous evaluation helps in regular assessment of learners' progress (ability and achievement) with reference to specific scholastic and co scholastic areas.
- Continuous evaluation serves to diagnose weaknesses and helps the teacher ascertain individual learner's strengths and weaknesses.
- It provides immediate feedback to the teacher who can then decide whether a particular unit or concept needs re-teaching in the whole class or whether a few individuals are in need of remedial instruction.
- It helps children know their strengths and weaknesses and motivates them for self-learning.
- It provides the child a realistic self assessment of how he/she studies and also helps him/her enhance his/her learning abilities.
- It motivates children to develop good study habits and directs their activities towards the achievement of desired learning goals.
- It helps a learner to determine the areas of instruction in which more emphasis is required. Continuous and comprehensiveevaluation identify areas such as aptitude, interest and self-concept.
- It helps in identifying changes in attitude and value systems of students.
- It helps in making decisions for the future, regarding choice of subjects, courses and careers.
- It provides information /reports on the progress of students in scholastic and co-scholastic areas and thus helps in predicting future success of learners.
- In CCE, teachers can use different kinds of tools to test the abilities of learners in scholastic and co-scholastic areas.

Check Your Progress 1

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

b) Compare your answers with those given at the end of the unit.

1. What is continuous evaluation?

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2. What is comprehensive evaluation?

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3. How does CCE help teachers modify their teaching? Discuss.

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12.4 FORMS OF CCE

In the previous sections, you have learnt about the concept of CCE. In this section, you will learn various forms of CCE used in the assessment of scholastic and co-scholastic abilities of learners.You have studied earlier that scholastic abilities include knowledge, understanding, application, analysis, synthesis, and creativity of learners in the core subjects taught at the school such as Mathematics, Languages, Science, and Social Sciences. Whereas the other areas of knowledge which is an integral part of the school process such as : art and craft education, peace education, life skill education, yoga, health and physical education, etc. are considered as co-scholastic areas of knowledge. Proper integration of scholastic and co-scholastic areas of knowledge in the school curriculum and assessment of students abilities in those areas are a challenges for a teacher. In Table-12.1, you have studied the tools and techniques that we use to assess abilities of students in scholastic and co-scholastic areas of knowledge. In this section, we will focus on the recent CCE practices adopted by Central Board of Secondary Education (CBSE) at the Upper Primary and Secondary stages.

12.4.1 CCE in Scholastic Areas

As notified by CBSE (2017), the subject-wise CCE practices in scholastic areas at the Upper Primary and Secondary levels are presented in the Table 12.2.

Table 12.2 Assessment Structure of Scholastic Activities at the Upper Primary and Secondary Stages.

Subject	**Term-I (100 Marks)** (1st half of the session) 20 marks Periodic Assessment (PA) + 80 marks for Half Yearly Exam	**Term-II (100 Marks)** (2nd half of the session) 20 marks Periodic Assessment (PA) + 80 marks for Yearly Exam

Language-1 Language-2 Language-3 Mathematics Science Social Sciences Any other Subject	**PA 20 marks** • Periodic Test 10 marks with syllabus covered till announce-ment of test dates by school. • Note Book Submission 5 marks at term-end. • Subject Enrichment 5 marks at term-end.	**Half Yearly Exam** • Written exam for 80 marks with syllabus covered till announcement of Half Yearly exam dates by school.	**PA 20 marks** • Periodic Test 10 marks with syllabus covered till announce-ment of test dates by school. • Note Book submission 5 marks at term-end. • Subject Enrichment 5 marks at term-end.	**Yearly Exam** Written exam for 80 marks with syllabus coverage as below: **Class VI**: 10% of 1st term covering significant topics + entire syllabus of 2nd term. **Class VII**: 20% of 1st term covering significant topics + entire syllabus of 2nd term. **Class VIII**: 30% of 1st term covering significant topics + entire syllabus of 2nd term.

(Source : CBSE, 2017)

The pattern of assessment for Class-IX is followed for bringing uniformity in assessment and preparing the report cards. The detailsas mentioned in the Table 12.2 depicts that students will appear for both periodic assessment and term-end examinationin both Ist half and 2nd half of the session. The subject wise weightage to periodic assessment is 20 % (20 Marks) and to term-end examination 80% (80 Marks). The periodic comprises: periodic test (10 Marks), note-book submission (5 Marks) and subject enrichment (5 Marks). Let us now try to understand on periodic test, note-book submission and subject enrichment.

Periodic Test : This is a test covering the syllabus completed till the declaration of the half-yearly or annual examination. Basically, it is a type of pen-paper test. The weightage to the test is 10 Marks.

Note Book Submission : The concept of note book submission is to submit the records of activities that the students perform during the semester. It also includes the portfolios, assignments, files and project work conducted by the students during the semester.

Subject Enrichment Activities : These are subject-specific activities aimed at enhancing the understanding and skills of the students. These activities are to be carried out through out the term, however, they should be evaluated at the term-end. The subject enrichment activities are different from subject to subject. These are purely formative in nature and the aim of keeping such activities is to engage the students in various academic discourses such as participating quizzes and debates, field-trips, subject-based projects, etc. The weightage to subject enrichment activities is of 5% (5 Marks). Activities can be selected from various activities suggested under this head (subject-

wise). As example, for Class-VIII Science, activities can be taken from Science Activity Book, 'Learning by Doing' (CBSE, 2009). As example, the following activities can be undertaken in Science :

- Sound (Lets make music; I can see my sound; How does sound travel?, etc.)
- Stars and the Solar System (Is the moon growing or shrinking?; Making a solar system mobile, etc.)

(Source :http://49.50.70.100/web_material/publication/archive/science_activity_class_viii.pdf retrieved on 05.09.2017)

Accordingly, map or project work may be undertaken for Social Science. The activities in languages may cover the four skills of language learning such as reading, writing listening and speaking. For Mathematics, activities for students of standard seven and eight can be selected from the 'Mathematical Laboratory in Primary and Upper Primary Schools' (suggested by CBSE).

(Source :http://49.50.70.100/web_material /publication /archive/maths_activity_class_3 _8_ part3. pdf, retrieved on 05.09.2017)

Further the half-yearly and yearly examination is of 80% weightage (80 Marks) which includes the entire curriculum of second term of the session and 10% (for Class-VI), 20% (for Class-VII) and 30% (for Class-VIII) from the first term syllabus of the concerned classes for whom the test is prepared.

Grading scales for scholastic areas at the Upper Primary and Secondary Stages is presented in Table 12.3 :

Table 12.3 : Grading Scales for Scholastic and Co-scholastic Areas

Grading Scale for Scholastic Areas (Classes VI-VIII) (School will award grades as per the following grading scale)		Grading Scale for Scholastic Areas (Class-IX) (School will award grades as per the following grading scale)	
Marks Range	**Grade**	**Marks Range**	**Grade**
91-100	A1	91-100	A1
81-90	A2	81-90	A2
71-80	B1	71-80	B1
61-70	B2	61-70	B2
51-60	C1	51-60	C1
41-50	C2	41-50	C2
33-40	D	33-40	D
32 & below	E (Needs improvement)	32 & below	E (Failed)

12.4.2 CCE in Co-scholastic Areas

For carrying out assessment of students' performance in co-scholastic areas at the Upper Primary and Secondary Stages, and bringing uniformity in reporting the results, CBSE (2017) has mandated assessment in three different co-scholastic areas. They are :

i. Work Education

ii. Art Education

iii. Health and Physical Education

Let us to understand the above three co-scholastic areas and the activities carried out under each area.

(i) Work Education : National Curriculum Framework (NCF, 2005), has recommended work education should be one of the integral part of school curriculum. Advocating work education, NCF (2005) says 'integrating work into school curriculum would require a substantial amount of pedagogical understanding of how it would be integrated with learning and the mechanisms for assessment and evaluation'. The work-centred pedagogy in school should include critical thinking, transfer of learning, creativity, communication skills, aesthetics, work motivation, work ethics or collaborative functioning, and entrepreneurship-cum-social accountability. Under this head certain activities may be conducted linking with the curriculum which is skill-based and resulting in goods and services useful to the community. The following activities can be carried out as a part of work education for the students.

- Clay modeling
- Macramé work
- Best out of waste
- Gift wrapping
- Stuffed toys and doll making
- Sketches
- Cartoons
- Posters
- Diagrams
- Graphs
- Charts
- Flannel Board
- Models
- Specimen
- Scrap books

You can get the details of activities relating to work education from 'Work Education in Schools' (CBSE, 2004).

*(**Source** :Work Education in Schools (CBSE, 2004), retrieved from http://cbse.nic.in/workeducation.pdf, dated 06.09.2017)*

(ii) Art Education : Like work education, NCF (2005) also suggested to integrate art education in the formal schooling for making students acquainted with our unique cultural identity in all its diversity and richness. It has also recommended the visual and performing arts to become an important component of learning in the curriculum. Schools can conduct activities relating to visual and performing arts at different stages of school education. The activities can also be properly linked with the core curriculum taught at different stages. The following activities can be practised as co-scholastic activities under art education.

Visual Arts :

- Drawing and Painting
- Collage making
- Print making
- Photography and computer Graphics (wherever possible)
- Rangoli/ Mandna/ Wall painting (state/region specific traditional art forms)
- Sculpture (using locally available materials)
- Clay modelling
- Terracotta
- Carving and relief work
- Papier mache
- Mask making
- Construction (using waste materials)
- Pottery (if possible)

Performing Arts :

- Theatre
- Drama
- Dance
- Music (instrumental and vocal)

*(**Source** : Syllabus of Arts Education, NCERT, 2008. Retrieved from http://www.ncert.nic.in/rightside/links/pdf/syllabus/Art_Educationfinal_syllabus.pdf on 06.09.2017)*

(iii) Health and Physical Education : Health and physical education is one of the important co-scholastic areas of school curriculum. We know that health is a critical input for the all round development of students. Health and physical education is interrelated with each other. For keeping sound health and mind, there is the need of regular participation in different physical activities. It is only possible, if and when it is integrated in school curriculum. A regular health check up is necessary in the school to know the growth and development of students. They should also be taught about proper sanitation practices including hygienic practice at their home and hygienic and sanitation activities in school. The following activities can be carried out in health and physical education under co-scholastic areas.

- Indigenous games and sports (kho-kho, kabadi, running, jumping, etc.)
- Participation in NCC, NSS, Scouts & Guides.
- Practicing meditation and Yoga.
- Gardening/Shramdan
- Martial art, Gymnastics, etc.
- First aid

*(**Source** : CCE in Secondary Classes, CBSE (2010), retrieved from http://www.cbse.nic.in/cce/cce-manual/chapter_3.pdf on 06.09.2017)*

Assessment on the above three areas of co-scholastic abilities is to be done term wise. A 3-point grading scale (A = Outstanding, B = Very Good and C = Fair) is used for evaluating the abilities of the students at the Upper Primary stage and a 5-point grading scale (A-E) is used for Secondary classes. Regularity, sincere participation, output, and teamwork are the generic criteria for grading students' performance in the activities. The evaluation techniques such as observing the performance of students and interviewing them are usually used by teachers to grade them.

Apart from the above, the practice of discipline is also one of the important aspects in continuous and comprehensive evaluation. Let us try to understand the practices of disciplines coming under CCE.

Discipline : Students will also good be assessed on practices of disciplines which comprise regular attendance, sincerity, behaviour, observing social values, tidiness, respectfulness for rules and regulations, attitude towards society, nation and others. These can be done by the technique of observation by the teacher during teaching in daily lesson and also closely observing them in participating other school-based scholastic and co-scholastic activities. Cumulative record card, attendance register, rating scale, socio-metric techniques, student portfolio can also be used for taking decision on the above. Grading to'Discipline' will be done term wise on a 3-point grading scale (A= Outstanding, B = Very Good and C = Fair) for the Upper Primary and 5-point grading scale (A-E) is used for Secondary classes.

Check Your Progress 2

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

b) Compare your answers with those given at the end of the unit.

4. Explain the process of periodic assessment (PA) under the scholastic areas of assessment of the students.

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5. Describe the process of team-end examination under the scholastic areas of assessment of the students.

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6. What aspects of co-scholastic areas are included for assessment of the secondary school students?

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7. Compare the grading system between scholastic and co-scholastic abilities of the students.

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12.5 RECORDING AND REPORTING STUDENTS PERFORMANCE

As like assessing scholastic and co-scholastic abilities of the students, recording their abilities and reporting to the concerned stakeholders are also equally important. In view of this NCF (2005) reported that, *"a good evaluation and examination system can become an integral part of the learning process and benefit both the learners themselves and the educational system by giving credible feedback. The purpose of assessment is necessarily to improve the teaching-learning process and materials, and to be able to review the objectives that have been identified for different school stages by gauging the extent to which the capabilities of learners have been developed" (NCF, 2005, pp.71-72).* In view of the above, it has realised that recording and reporting of result and communicating it to the parents in a suitable format which includes both quantitative and qualitative abilities of the students are necessary.

We have discussed in the earlier units (Unit 1 and 2, Block-1 of the same Course) that the purpose of assessment is to help the students to enhance and construct their learning. In view of this, the students should get necessary feedbacks on various aspects of their abilities and accordingly they can get opportunity to enhance. It is possible when, we provide them feedback at the time of performing the activities and also mentioning it in their report card both quantitatively and qualitatively. Therefore, it is a very challenging task before the school management for recording information relating to students assessment and to preserve the records. In this section, we will discuss, how effectively we can record and report the result of the students and communicate it to the persons concerned.

12.5.1 Use of Quantitative and Qualitative Indicators

The performance of the students can be recorded in quantitative and qualitative terms. To get a complete picture of students development in the scholastic and co-scholastic areas at a particular class, we need to get the idea on the strong points and weaknesses of the students in each areas of their learning. The descriptive indicators are qualitative in nature. It specifies the efficiency and skills of the students that they exhibit. Mostly in lower classes, descriptive indicators are communicated to the parents and included in their report cards. That includes abilities in acquiring different language skills; abilities in solving mathematical sums; abilities in citing different examples in understanding social and environmental phenomenon; etc. It is sometime, not possible to include all descriptive indicators in the report card. In the higher classes, grading to co-scholastic ability areas can be reported in the report card on the basis of the indicators assessed and the details descriptions may be discussed with the students and the parents in informal and formal school meetings. Now let us discuss the format of report cards for Upper Primary and Secondary Classes as suggested by CBSE (2017).

Table 12.4 Format of Report Card for Class-IX

Academic Session:

Report Card for Class IX

Roll No. :

Student's Name:

Mother's/Father's/Guardian's Name:

Date of Birth:

Class/Section:

Scholastic Areas	**Academic Year (100 marks)**					
Sub. Name	**Periodi Test (10)**	**Note Book (5)**	**Subject Enrich-ment (5)**	**Annual Exami-(80)**	**Marks Obtained (100)**	**Grade**
Language-1						
Language-2						
Language-2						
Subject-1						
Subject-2						
Subject-3						
Additional or NSQF Subject*						

**NSQF – National Skill Qualification Framework*

Co-Scholastic Areas [on a 5-point (A-E) grading scale]	**Grade**
Work Education (or Pre-vocational Education)	
Art Education	
Health & Physical Education	

Discipline [on a 5-point (A-E) grading scale] Grade	
Discipline	

Class Teacher's Remarks :

Result :

Signature of Class Teacher **Signature of Principal**

Date…….....

Instructions

Grading scale for scholastic areas : Grades are awarded on a 8- point grading scale as follows :

Marks Range	Grade
91-100	A1
81-90	A2
71-80	B1
61-70	B2
51-60	C1
41-50	C2
33-40	D
32 & below	E (Failed)

*(**Source:** Uniform System of Assessment, CBSE, 2017)*

Table-12.4 describes the format of a report card for Class-IX. Reporting in scholastic areas is done both in marking and grading system whereas assessment to co-scholastic areas is done only in grading. Though activity wise space is not given for descriptive indicators, but description about individual students can be given in the space of Class Teacher's Remarks. Now let us understand a format of the report card used for Upper Primary classes (Class VI-VIII).

Table 12.5 Format of Report Card for the Classes: VI-VIII

Academic Session:

Report Card for Classes : VI-VIII

Roll No. :

Student's Name:

Mother's/Father's/Guardian's Name:

Date of Birth:

Class/Section:

Scholastic Areas:	Term-1 (100 Marks)						Term-2 (100 Marks)					
Subject Name	Per Test (10)	Note Book (5)	Sub Enrich-ment (5)	Half Yearly Exam (80)	Marks Ob-tained (100)	Gr	Per Test (10)	Note Book (5)	Sub Enrich-ment (5)	Yearly Exam (80)	Marks obtained (100)	Gr
Language-1												
Language-2												
Language-3												
Mathematics												
Science												
Soc. Science												
Any other Sub												

Co-Scholastic Areas: Term-1 [on a 3-point (A-C) grading scale]	Grade	Co-Scholastic Areas: Term-2 [on a 3-point (A-C) grading scale]	Grade
Work Education (or Pre-vocational Education)			
Art Education			
Health & Physical Education			

Discipline: Term-1 [on a 3-point (A-C) grading scale	Grade	Discipline: Term-2 [on a 3-point (A-C) grading scale]	Grade
Discipline		Discipline	

Class Teacher's Remarks :

Promoted to Class :

Date……..... **Signature of Class Teacher** **Signature of Principal**

Instructions

Grading scale for scholastic areas : Grades are awarded on a 8- point grading scale as follows :

Marks Range	Grade
91-100	A1
81-90	A2
71-80	B1
61-70	B2
51-60	C1
41-50	C2
33-40	D
32 & below	E (Needs improvement)

*(**Source:** Uniform System of Assessment, CBSE, 2017)*

Table 12.5 discusses the format of report card for the Classes VI-VIII. As per the uniform system of assessment, students from Class VI-VIII will undergo both periodic assessment (20%) and term-end assessment (80%) for term-1 and term-2 of a class. Assessment of scholastic areas is in 8-point scale. Co-scholastic abilities are assessed in three different areas such as work education, art education, and health and physical education. Assessment grading is done for co-scholastic areas is done in 3-point scales

(A-C). Assessment of scholastic areas whereas only grading is done for co-scholastic areas. The concerned class teachers give descriptive remarks on the performance and abilities of the individual student including their strong points and weaknesses.

Both quantitative (marks) and qualitative (grades) indicators are used in reporting the result of the students at the Secondary and Upper Primary stages. Both quantitative and qualitative indicators are used for reporting results in the scholastic areas whereas only qualitative indicators are used to report results in co-scholastic areas.

12.5.2 Role of Observation and Feedback

Observing the participation of the students in both scholastic and co-scholastic activities conducted in school and providing feedback to them in each activity are constructively help the students for improving their learning. The role of teachers is very much important to observe and understand the individual strengths and weaknesses in subject specific areas as well as other areas of co-scholastic abilities. On the basis of the observation by the teachers, feedbacks are given to the students for their improvement. Teachers are also discuss with the students about the areas/aspects that require improvement. Feedback can also be shared with the parents for better motivation and guidance to the students by the parents. Students feedbacks are also equally help the teachers to redesign their teaching. This also equally helps the entire school system to improve in the teaching-learning process and management of the school system.

Check Your Progress 3

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

b) Compare your answers with those given at the end of the unit.

8. How does reporting students performance help the students?

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9. What does the aspect of assessment of discipline include?

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12.6 STUDENTS PROFILE

A student's profile gives complete picture of a student. It includes the achievements in scholastic areas of the student as well as his/her performances in various co-scholastic abilities. Developing a student profile helps to provide a deeper understanding of student's unique interests, styles and abilities. For developing a student's profile, various sources can be used to gather data.

They are teacher's observation, assessment of student achievement and other abilities, portfolios, journals and learning logs, informal and formal classroom testing, learning style inventories, interest inventories, rating scales of student characteristics, previous report cards, information from parents, and psycho-educational testing. (British Columbia, 2006-07). The following five different areas can be considered for developing a student's profile. They are :

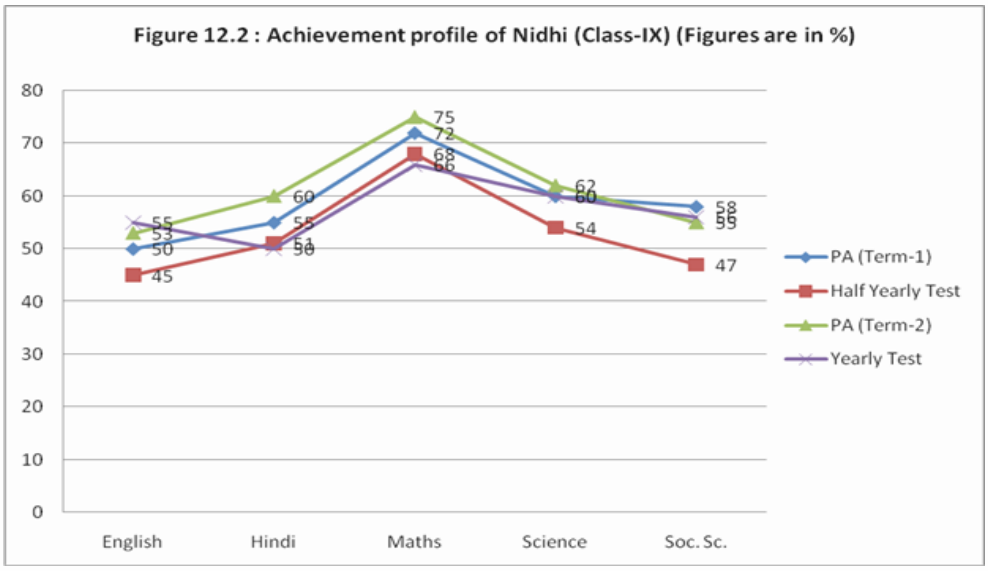
- Academic achievement
- Learning styles and strengths
- Interests
- Special abilities
- Visions and future goals

Let us try to understand developing student's profile in academic achievement. As example, the percentage of scores of Nidhi in Class-IX of different subjects is presented as follows :

Table 12.6 Achievement scores of Nidhi (figures are in percentage)

Subjects/ Tests	Periodic Assessment (Term-1)	Half Yearly Test	Periodic Assessment (Term-2)	Yearly Test Test
English	50	45	53	55
Hindi	55	51	60	50
Mathematics	72	68	75	66
Science	60	54	62	60
Social Science	58	47	55	56

To show the above achievement scores of Nidhi in a figure will give us better understanding to understand Nidhi's achievement profile. See the Figure-12.2 :



By observing the achievement profile of Nidhi in different tests of various subjects, we can gauge the idea as follows:

i. In all the tests, Nidhi comparatively did well in Mathematics in relation to other subjects.

ii. Nidhi's achievement in Hindi and Science is in similar standard.

iii. Achievement in English and Social Science is similar but less than other subjects.

iv. Ndihi's scholastic interest area of subject is Mathematics, as she comparatively scored better than other subjects.

Accordingly, students profile can be developed in other co-scholastic areas.

Activity 1

As discussed in Figure-12.2, collect achievement data of different tests in various subjects of at least two students at the secondary stage and prepare their achievement score profile. And also analyse their profile.

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12.7 CUMULATIVE RECORDS

Evaluation based on quantitative measures cannot be considered complete and valid unless the qualitative aspects of student's behaviour are not taken into consideration. This is again important to understand that maintaining a complete record of students including their scholastic achievements and performances in various co-scholastic areas help the entire school system in general and the individual student in particular for using it many purposes. It helps the teachers to get information of the students in various areas, their strong and weak points, likes and dislikes, and special interest areas of the students and accordingly provide them necessary guidance and counselling. A cumulative record of a student includes all the above things come under both the scholastic and co-scholastic activities. Apart from these it also includes the health, family, and personal data of the students. There are many information to be recorded in the cumulative record. They can be categorically in the following headings :

(i) Personal information

(ii) Scholastic achievements

(iii) Physical health

(iv) Co-scholastic activities

(v) Habits, interests and attitudes

(i) Personal Information:

Name :.....

Sex : M/F

Class :.....

Sec : .....

Date of Birth : .....

Date of Admission : . .....

Admission No. : .....

Date of Leaving the School : . .....

Interest and Hobbies .....

Differently-abled : Yes/No; If yes, specify it : .....

Exceptional Achievement(s)/Awards : .....

Family Background :

Name of the Father : .....

Occupation of Father :.....

Name of the Mother : .....

Occupation of Mother : .....

Monthly Income of Family : .....

Education of Parents (Mention highest examination passed) :

Father : .....

Mother :.....

Permanent Address .....

.....

Name of Siblings :

S.N.	Name	Sex	Age	Education	Remarks
1					
2					
3					
4					
5					

(ii) Scholastic Achievements :

Subject	Class-VI Grade/Marks		Class-VII Grade/Marks		Class-VIII Grade/Marks		Class-IX Grade/Marks		Class-X Grade/Marks		Class-XI Grade/Marks		Class-XII Grade/Marks	
	T-1	T-2	T-1	T-2	T-1	T-2	T-1	T-2	T-1	T-2	T-1	T-2	T-1	T-2
Language-1														
Language-2														
Language-3														
Mathematics														
Science														
Social Science														
NSQF Subject														
Other Subject														
Elective Sub-1														
Elective Sub-2														
Elective Sub-3														
Elective Sub-4														
Initial of the Class Teacher														

***Note** : T-1 – Term-1(half-yearly test) and T-2 – Term-2 (Yearly or Annual Test)*

(iii) Physical Health :

Particulars/ Classes	Class-VI		Class-VII		Class-VIII		Class-IX		Class-X		Class-XI		Class-XII	
	T-1	T-2	T-1	T-2	T-1	T-2	T-1	T-2	T-1	T-2	T-1	T-2	T-1	T-2
Height in Cms.														
Weight in KG														
Grade of Ht. Wt. Ra\														
Chest (Normal)														
Chest (Expanded)														
Grade of Chest Expansion														
Physical defects if any (Ear, eye, nose, teeth, skin, etc.)														

Name of the serious and chronic diseases														
Blood Group														
Grade of general condition of health														
Follow-up steps taken in the school														
Initial of Parents														
Initial of staff Nurse Initial of Doctor														

(iv) Co-scholastic Activities : (only grade will be assigned)

Particulars/ Classes	Class-VI		Class-VII		Class-VIII		Class-IX		Class-X		Class-XI		Class-XII	
	T-1	T-2	T-1	T-2	T-1	T-2	-1	T-2	T-1	T-2	T-1	T-2	T-1	T-2
Work Education														
Art Education														
Health & Education														
Discipline														
Any other														

Note : *Grading from Class-VI to VIII is in 3-point scales (A-C) and Grading to Class IX and above in 5-point scale (A-E)*

(v) Habits, Interests and Attitudes : (only grade will be assigned)

Particulars/ Classes	Class-VI	Class-VII	Class-VIII	Class-IX	Class-X	Class-XI	Class-XII
Health Habits							
Study Habits							
Study Habits							
Work Habits							
Interests Areas : Literary							
Interests Areas : Artistic							
Interests Areas : Musical							
Interests Areas : Scientific							
Interests Areas : Social Service							
Attitude towards Studies							
Attitude towards Teachers							
Attitude towards Parents							
Attitude towards School Programmes							
Attitude towards school Infrastructure							
Initials of concern In-charges							

*(**Note** : The format of the above cumulative record has been taken from ES-333, Block-3, pp.59-62, IGNOU, 2010 with necessary modifications as per the prevailing CCE practices in Upper Primary and Secondary stages.)*

Check Your Progress 4

Note : a) Write your answers in the space given below.
b) Compare your answers with those given at the end of the unit.

10. What is a cumulative record?

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11. How does cumulative record help the teachers to provide necessary guidance to the students?

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12.8 LETS US SUM UP

According to Gandhiji, education means to bring all round development of child's body, mind and spirit. Gandhiji's concept on education implies child's development both in scholastic and co-scholastic areas. In scholastic areas, it includes the development of mind and the ability to acquire knowledge, develop understanding, analyse and synthesise it, apply the knowledge in practical situations and also critically reflect on various issues. Development of body and spirit which is related to co-scholastic abilities of the students which include physical development, development of senses, work experience, art and culture, life skill and value education and also builds ones character through education.

As assessment is an integrated part of every teaching-learning process, it is therefore important to develop a system of systematic assessment of all aspects of learning. In this Unit, you learnt the process of continuous and comprehensive evaluation practices in the school which includes the abilities of scholastic and co-scholastic areas. You have also learnt the processes of assessing scholastic and co-scholastic abilities of the students, grade it and report to the concerned stakeholders with feedbacks for the improvement of the students. This also equally helps the teachers to re-design their teaching. You have also learnt to use the student's profile as well as cumulative records as tools of assessment used at the school stage.

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12.10 ANSWERS TO CHECK YOUR PROGRESS

1. Continuous evaluation means regularity in the process of evaluation. It includes unit-end tests, monthly, quarterly, half-yearly and even annual examination.

2. Comprehensive evaluation includes evaluation for all round development of the students. It consists scholastic, co-scholastic abilities of the students and it also includes the areas of their special interests.

3. Feedback of students assessment through continuous and comprehensive evaluation helps the teachers to assess their teaching behavior and re-design their teaching.

4. Periodic assessment is classified in three different headings such as : periodic test (10 Marks), note-book submission (5 Marks) and subject enrichment (5 Marks). This a type of internal assessment, which is

conducted by the teacher who teaches the subject. Weightage given to periodic assessment is 20%.

5. Term-end examination conducted at the completion of half of the session. First term-end will be the half-yearly exam and second term-end is yearly exam. Weightage given to term-end exam is 80%.

6. Work education, art education and physical and health education.

7. Grading system in scholastic areas are done in 8-point scales both for Upper Primary and Secondary students where as grading system for co-scholastic areas are done in 5-points (A-E) for secondary students and in 3-points (A-C) for Upper Primary students.

8. Students will get a complete picture of their performances in scholastic and co-scholastic areas. The specific feedback that they receive will help them to modify their learning.

9. Discipline includes assessment in the areas such as attendance, sincerity, behaviour, values, tidiness, respectfulness for rules and regulations, attitude towards society, nation, etc.

10. Cumulative records of the students include both the scholastic and co-scholastic abilities of the students. It includes personal information, scholastic achievements, physical health, co-scholastic activities and habits, interests and attitudes of the students. It provides a complete chronological picture of the student in all the above areas.

11. By going through the cumulative record, teacher can get complete information of the students including their personal and academic data. Accordingly, teacher can provide proper guidance and counseling in a separate para.

    *(**Note** : The format of the above cumulative record has been taken from ES-333, Block-3, pp.59-62, IGNOU, 2010 with necessary modifications as per the prevailing CCE practices in Upper Primary and Secondary stages.)*