UNIT 8: EDUCATIONAL ACHIEVEMENT AND ITS MEASUREMENT

UNIT STRUCTURE

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8.1 LEARNING OBJECTIVES

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

- understand the meaning and objectives of achievement test
- know about the different types of standardized achievement test
- understand the meaning of teacher made achievement tests
- explain the procedure for teacher made test construction
- know about essay type, short answer type and objective type tests

8.2 INTRODUCTION

Educational achievement is an important area of concern for teachers, parents, policy planners, and educational administrators. In educational institutions, students are provided with various knowledge,

experience and skills based on the the goals and objectives of that specific education. Examinations are held at regular intervals to assess how much of these knowledge and experience have been acquired by the students or to assess if the students have been successful in achieving the goals of education. Hence the tests of educational achievement help to measure the level of achievement of students in the field of education. In this unit we are going to discuss about different types of achievement test and its applicability in the field of education.

8.3 MEANING OF EDUCATIONAL ACHIEVEMENT

Educational achievement is the degree to which a learner has achieved the educational goals and objectives. It refers to the achievement or performance of students in academic areas such as reading, writing, arithmetic, language arts, science and other disciplines as measured by achievement tests. According to Simpson and Weiner, achievement is defined as measurable behaviour in a standardised series of tests.

From a simpler and more practical point of view, educational achievement refers to the knowledge, attainment, understanding, skill, performance, etc. acquired by an individual during the process of learning. This means, all desirable changes in student behaviour as a result of learning may be called educational achievement. In order to assess the qualitative standard of scholastic and non-scholastic attainment of students, effectiveness of teaching and teaching methods, and overall standard of educational institution, regular evaluation is conducted. This evaluation process is closely associated with the objectives of education and the learning experiences in the form of a curriculum provided to the students to help them to achieve the objectives. Teachers impart knowledge on the basis of a curriculum to help students achieve the objectives of education and instruction. The extent of success of the teachers and students in this task of shaping behaviour according to the goals of education is their educational achievement.

At this point it is important to make a distinction between

achievement and other similar concepts like aptitude and intelligence. An aptitude is the ability to learn or to develop proficiency in an area when provided with appropriate education or training; it is a natural skill, talent, or capacity of an individual to learn. Aptitude is oriented towards future. While aptitude is the potential to learn, achievement is learning itself. It is the amount or extent of the knowledge or skills that an individual has already learned. Its orientation is towards the past. Aptitude is an ability to learn specific things with training but intelligence is a general mental ability to reason, solve problems, think abstractly, comprehend ideas and language, and learn; which is not a product of training or learning. The orientation of intelligence is towards the present.

8.4 MEASUREMENT OF EDUCATIONAL ACHIEVEMENT

Although the measurement of achievement is complex due to the intangibility and lack of agreement about the concept of achievement itself, and also due to the relative imprecision of many of the techniques of educational measurement, psychologists believe that educational achievements can be measured. Educational achievement in the true sense usually leads to difference in behaviour of individuals. The person who has achieved more behaves differently from the person who has achieved less. Measurement of achievement is the process of finding out such differences. Many important educational achievements can be measured satisfactorily through examinations and tests of various types that claim to measure knowledge, skills, facts and other qualities that education aims to impart and develop.

According to **Bruce and Neville**, educational achievement is measured by standardised achievement test developed for school subjects. What this means is that academic achievement is measured in relation to what is attained at the end of a course, since it is the accomplishment of medium or long term objective of education. What is important is that the test should be a standardised test to meet national norms. For a test to be

standardised, it must be valid for over a period of time.

According to **N.M. Downie**, "Any test that measures the attainments and accomplishments of an individual after a period of training or learning".

Thorndike and Hagen define an achievement test as, "The type of ability test that describes what a person has learned to do".

Groulund stated that achievement is "a systematic procedure for determining the amount a student has learned through instructions"

Simpson and Weiner asserted that achievement test intends to measure systematic education and training in school occupation towards a conventionally accepted pattern of skills or knowledge.

8.5 OBJECTIVES OF ACHIEVEMENT TESTS

The main objective of achievement test is to determine the extent of success of students in achieving the knowledge, skills or the experiences that were provided to them. Achievement tests aim to measure intellectual competence of individuals in different areas. It measures what and how much an individual has learned or attained skills. Schools regularly use achievement tests to measure the attainment of students. Some of the important objectives of achievement test may be mentioned as under:

- One of the main objectives of achievement test is to determine the extent to which educational objectives have been attained.
- Achievement test aims to measure the effects of education and training on the behaviour of the students in terms of developing conventionally accepted pattern of skills or knowledge.
- Achievement test aims to assess how much an individual know about certain topics or how well they can perform certain skills. Moreover, achievement test help in selecting individuals for entry into Universities, for certification, and the like.
- One important objective of achievement test is to provide basis for promotion or retention of students and grading them.
- Achievement test aims to find out the relative position of students with regard to various academic areas.

- Helping the selection of students for their proper placement in particular course or career is another objective of achievement test.
- Motivating the students is an important objective of achievement test.
- Diagnosing the strengths and weaknesses of students in the field of learning and providing them necessary remedial guidance and support is another objective of achievement test.
- Another objective of achievement test is to inform the student and his parents about his academic attainments.
- Providing teachers and school administrators with information about necessary reform of the curriculum is another objective of achievement test.
- Another objective of achievement test is to evaluate teaching effectiveness besides measuring the progress of students in the course.
- One important objective of achievement test is to assist summative as well as formative evaluation of students.



CHECK YOUR PROGRESS

Q 1: What is achievement test?

.....

Q 2: What is the purpose of achievement testing?

.....

8.6 TYPES OF ACHIEVEMENT TESTS

The field of psychological testing is full of numerous types of achievement tests. Depending on the purpose, standardization, administration, functions and other such criteria, achievement tests have been classified differently. However, all achievement tests can be broadly categorized into standardized tests and teacher-made tests. A simple classification of these tests may be presented as below:

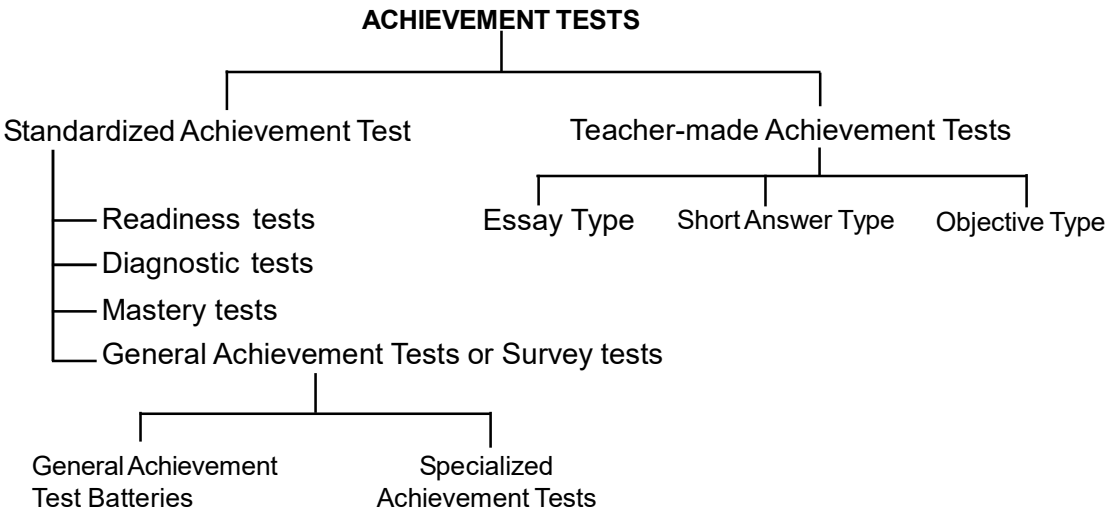


Figure 8.1: Classification of achievement Test

8.6.1 Standardized Achievement Test

Although the purpose of the two types of achievement tests, viz-standardized tests and teacher-made tests is the same, they have differences in terms of their procedures of construction and use. Standardized achievement tests are constructed by experts. A standardized achievement test is administered, scored, and interpreted in the same way for all students and in all conditions of testing. A standardized test establishes uniformity of procedures for administration and scoring of the test. This uniformity of procedure makes the scores obtained by different persons comparable.

According to **L. J. Cronbach**, a standardized test is one in which procedure, apparatus, and scoring has been fixed so that precisely the same test can be given at different times and places. According to **Newkirk and Greene**, "A test is standardized (i) if it is composed of exercises that have been selected in the light of usual teaching practice and evaluated as to innate difficulty and (ii) if it is accompanied by norms or standards permitting the interpretation of results in levels of accomplishment".

The main characteristics of a standardized test are as follows:

- A standardized test is administered under identical conditions, it does not matter where, when, by whom or to whom the test is

administered, it is done in a similar way.

- A standardized test is always scored objectively and in a standard or consistent manner; the procedures for scoring a standardized test are specified so that different scorers arrive at the same scores for the same set of responses,
- A standardized test requires all test takers to answer the same questions in the same way,
- Scoring of standardized achievement test is objective, standard and based on well prepared scoring key.
- Scores obtained by different individuals or groups in standardized test can be compared in order to assess the relative performance of individual students or groups of students.
- Standardized tests are usually designed to measure relative performance of individuals or groups. Hence establishment of norms for comparing the performance of individuals or groups form an important part of a standardized test construction.
- The construction of standardized achievement test is systematic and methodical which passes through definite steps and follows certain principles.
- Item construction for standardized achievement test passed though the stages of item analysis.
- The formulation of directions for a standardized test is a major part of its construction. Directions for standardized tests specify the materials to be used, time limits to be given, oral instructions and demonstrations to testees, and all other details of the testing situation.
- Standardized tests are highly reliable and valid.

(The principles and method of standardized test construction has been discussed in UNIT IV)

Here, we are going to discuss about the types of standardized achievement test in detail-

Readiness tests: A readiness test, a type of prognostic test, is used to predict a student's future success in a particular learning

activity. The test measures the student's physical, mental, or emotional readiness or maturity to handle formal instruction. It is constructed and used to predict how ready or likely an individual is to benefit from instruction in a particular field, i.e. reading or mathematics. These tests are constructed to study the developmental conditions of an individual to determine whether or not, or to what extent, the individual could learn particular skills or acquire particular knowledge and experience. In educational situations, readiness tests measure cognitive, affective, and psycho-motor and such other factors that are involved in learning, in order to determine if a student has the necessary background or readiness to gain from a particular course of instruction. Wrightstone's Prognostic Test of Mechanical Abilities, Hoke's Prognosis Test of Stenographic Ability etc are examples of some famous readiness test.

Diagnostic tests: Diagnostic tests assess students' understanding of a subject, area or skill. Usually diagnostic tests are administered before giving instructions. The purpose of these tests is to determine what students already know about the content that would be covered by instruction. These tests help to identify learning difficulties of students in different subjects and discover their preferred learning styles and their strengths and weaknesses. Diagnostic tests help in assessing a student's understanding of different subjects. The findings of diagnostic tests can be used to provide remedial instruction. Thus diagnostic tests help formative assessment of students and provide directions to teachers about the direction they need to take in their instruction. Examples of diagnostic tests include: Schonnel's Diagnostic Test in Arithmetic, Compass Diagnostic Test in Arithmetic, Durrell Analysis of Reading Difficulty, Gates Basic Reading Test etc. It is important to note that the diagnostic tests can diagnose or identify the weaknesses but cannot suggest remedial measures for their removal.

Mastery tests: Another important type of achievement test is mastery test or proficiency test. These tests compare the mastery or proficiency of students in a particular area with an established standard of mastery. Mastery tests measure the minimum level of mastery required to achieve success in a particular field. Unlike other tests that use a 101 point scale (ranging from 0 to 100) to assess students' performance or achievement in a particular area, a mastery test assesses the students' performance as all or nothing: either the individual has mastered or has not mastered the tested area at a specified level of performance. For example, a mastery test on arithmetic measures whether or not an individual has mastery, based on an established set of criteria. If a testee meets those criteria, he is passed, otherwise he is failed. Missouri Mastery and Achievement Tests is an example of a mastery test by which students' mastery over school subjects is measured.

General Achievement Tests or Survey Tests: General Achievement Tests are most widely used test in the field of achievement testing. A general achievement or a survey test measures the performance of an individual in a single score and does not measure or discover specific strengths or weaknesses. This general achievement test or survey test is a group of subject-matter tests designed for particular grade levels. The major purpose of administering such a test is to determine an individual's general standing in a group rather than his specific strengths and weakness. These tests are generally based on educational objectives and are very wide in scope. These tests are designed to survey or measure achievement in different areas such as language, mathematics, spelling, social science, etc. This is the most comprehensive way of assessing achievement. Such tests give an overall picture of an examinees standing in various subjects.

The general achievement or a survey tests may be categorized into two types: **(i) General Achievement Test Batteries, and (ii) Specialized Achievement Tests.**

(i)General Achievement Test Batteries: A test battery refers to a set of tests grouped together and administered to individuals. A general achievement test battery is a group of subject-matter tests designed for particular grade levels. The major purpose of administering a battery of test is to determine an individual's general standing in a group rather than his specific strengths and weakness. General achievement test batteries are normally used to determine general standing of individuals in group. The battery is a group of subject area tests, usually containing a limited number of questions with in each subject area. A few examples of such test batteries are as follows:

Metropolitan Achievement Tests: This battery of tests was published in 1956. The test is spread from grade-1 to grade-9. The time required for administration of the battery ranges from 2hours to 41/2 hours. There are a total of 15 individual tests in the battery meant for different grades. They are:

- Word Knowledge test: applicable to all the grades
- Word Discrimination test: for 1st to 4th grades
- Reading test: applicable to all the grades
- Test of Arithmetic concept and skills: for 1st and 2nd grade
- Test of problem solving ability: for 3rd to 9th grade
- Test of computation: for 3rd to 9th grade
- Test of spelling: applicable to all the grades
- Language use test: for 7th to 9th grade
- Written language test: for 3rd to 9th grade
- Test of using different kinds of sentences: for 7th to 9th grade
- Grammar test: for 5th to 9th grade
- Language study skill: applicable to all the grades
- Social science knowledge test: for 5th to 9th grade
- Test on social science skills: for 5th to 9th grade
- Test for science: for 5th to 9th grade

Sequential Test of Educational Progress (STEP): Educational Testing Service (USA), the world's largest private

nonprofit educational testing and assessment organization developed the Sequential Test of Educational Progress (STEP). These test batteries were developed for four different stages-

Stage-1 - grade 4 to 6

Stage-2 - grade 7 to 9

Stage-3 - grade 10 to 12

Stage-4 - grade 13 to 14

This test battery consists of seven tests, namely:

1. Reading ability
2. Writing ability
3. Mathematical achievement
4. Science
5. Social studies
6. Listening
7. Essay writing.

Excluding the last test all the other tests are objective type tests. The total time required to administer the test is 7hours and 35 minutes. But these are administered separately and the scores obtained in the different tests are converted into a standard score to make a comprehensive evaluation of students.

Stanford Achievement Test: The Stanford Achievement Test is similar to the Metropolitan Achievement Test and was published for the first in 1923 and was revised in 1953. This test consists of four batteries. They are-

1. Primary - a total of five tests for 2nd and 3rd grade
2. Elementary - a total of six tests for 3rd and 4th grade
3. Intermediate - a total of nine tests for 5th to 7th grade
4. Advanced-a total of nine tests for 7th to 9th grade

Time for administration of the tests for different grades is 85 minutes, 145 minutes, 232 minutes and 227 minutes respectively. The various tests include the following fields:

Area	Tests
Language	Reading, Meaning of Paragraph, Word –Meaning, Spelling and Language
Arithmetic	Arithmetic, Counting, and Logic
Social Studies	Social Studies
Science	Science
Study Skills	Study Skills

(ii) Specialized Achievement Tests: Specialized achievement tests are designed to measure achievement in a single academic area (e.g. reading, writing etc) and different test are prepared for different grades. Rather than measuring the general or overall achievement of individuals; specialized achievement tests measure proficiency of an individual in a single subject or area. Two examples of specialized achievement tests have been presented below:

Iowa Reading Test: This is a test for measuring reading ability. This test consists of seven sub-tests; they are:

1. Test of measuring rate of reading,
2. Comprehension of prose after reading,
3. Test on poetry comprehension,
4. Test on vocabulary,
5. Test of sentence meaning,
6. Test of paragraph comprehension,
7. Test on finding location of information.

Thorndike Handwriting Scale for Children: This test of handwriting was first published in 1910. The test was constructed only for measuring handwriting of children using large samples of handwriting of children. Experienced evaluators separated these handwritings on the basis of general merit. Another two similar tests are: The Ayres handwriting scales, and Conard Manuscript writing Standards.

8.6.2 Teacher-made Achievement Test

As suggested by the name itself, teacher-made tests are prepared locally by classroom teachers to test educational achievement of their students. Sometimes these tests are also constructed to determine the effectiveness of teaching and learning. For constructing such tests the teacher must have mastery over subject matter besides accurate and thorough knowledge about educational objectives. These tests are not standardized tests. Many people say that standardized tests are more useful for achievement testing since they are more valid and more reliable than the teacher made tests. But at the same time it must also be remembered that the teacher cannot always depend upon standardized tests. Many a times standardized tests fail to serve local and immediate needs or purpose and they are costly and not easily available. This is why classroom teachers need to construct their own test to meet the local needs and purpose of testing. Teacher-made tests are generally constructed only through two steps: the step of planning and the step of preparing the test. The main characteristics of a teacher made test are:

- Teacher-made tests are constructed by classroom teachers to meet immediate and local needs.
- They may be used as diagnostic or prognostic tests.
- Steps involved in standardized tests are not followed.
- Less valid and less reliable than standardized tests.
- The construction and administration is easy and economic.
- Scope of teacher-made test is limited and cannot be used with any other group than the one for which it was constructed.

Steps involved in the construction of teacher-made test:

As already mentioned above, teacher-made tests are constructed following only two stages: Planning and preparing the test.

Planning for a teacher made test: At this stage the length and organisation of the items is decided keeping in view the objectives of testing. After this a blue print or test-specification is prepared including the instructional objectives, weightage to different areas of the content, the type of questions or tasks to match the instructional objectives, and the learning domains and levels therein. Constructing a test is a complex task and it can be successfully achieved only with the cooperation from experts, colleagues and other experienced persons. Therefore, at this stage the teacher should consult the concerned persons about the test and collect their views and suggestions. Moreover, the teacher should have good knowledge about the construction and use of different types of test items.

Preparing the test: At this stage items are constructed and are repeatedly studied to analyze properly in order to ensure that the selected items are correct and appropriate. Provisions are made to effect necessary modifications of items and to delete items that are defective. At the same time, it also must be kept in mind that the number and type of items are retained in the test as decided at the time of preparing the blueprint. After selecting the items for the test, they are arranged in ascending order of difficulty and a set of clear instructions as to how to respond to the items is prepared and attached. Moreover, the time stipulated for the test, the procedure for scoring is decided and attached with the test. Thus, a teacher-made test is constructed.

Limitations of teacher made test:

- Constructing a test by a classroom teacher is time consuming and costly.
- Standardization, item analyses etc. scientific procedures are not followed by these tests.
- Every teacher cannot construct a good or useful test.
- These tests are less valid, less reliable and are subjective.

- These tests can fulfil local needs only.
- These tests cannot maintain a uniform standard of testing.

8.6.3 Essay type, Objective type, and Short answer type tests

Teacher-made tests may be of different types depending on the content and different objectives of testing. The major types are discussed below:

Essay type tests: Essay type tests are very popular and traditional tests and answer to these questions resembles long essays. These questions can test the mental abilities like explanation, illustration, presentation, analysis, comparison, justification, synthesis etc. These types of questions are very useful for assessing the educational progress and depth of knowledge of the students. However, these questions are influenced by subjectivity though they are easy to construct and administer. These types of tests are alleged to be less valid, less reliable and subjective.

Strengths of essay type tests:

- Essay type tests an test can test the language skills of students.
- Essay type tests can measure written communication, expression, and understanding.
- Essay type tests can appropriately test mental abilities like explanation, illustration, presentation, analysis, comparison, justification, synthesis etc.
- Construction of essay type test is simple and economic.
- Administration of essay type test is very easy.
- Essay type tests may develop the habit of deeper study among the students.

Limitations of essay type test:

- Essay type tests cannot represent all or the large part of the content since only a few questions can be asked due to their length.

- Examinees may write irrelevant things since the scope of the answer is not clear.
- The validity, reliability and objectivity of essay type tests are doubtful.
- Different examiners or the same examiner at different times may award different marks on the same answer script.
- Essay type tests are time consuming.
- Essay type tests measure the power of memory rather than testing their knowledge and understanding.
- Essay type tests reduce the speed of thinking to the speed of writing of the examinees.

Short answer type tests: These are fairly structured items that require brief answers, usually within few words or sentences. These items can represent wide area of topic. Unlike essay or objective tests, they are neither too long nor too short. During the current times these tests have become very popular. These questions can be highly thought provoking and these questions can be made very specific about the subject to be asked.

Strengths of short answer type test:

- Short answer type tests can represent very wide area of the content.
- These tests are more valid and reliable than essay type tests.
- Short answer type tests objective and the influence of subjectivity is less.
- Examinees cannot write irrelevant answers since the scope and length of the answers are specified.
- The construction, administration and scoring of short answer type test is easy.
- Short answer type test is a synthesis of the essay type and objective type tests.
- Short answer type tests are economic.

Limitations of short answer type tests:

- Short answer type tests restrict the scope of the topic to be

discussed.

- Short answer type tests indicate the nature of the desired response and thereby limit originality.

OBJECTIVE TYPE TESTS: These types of tests require short answers which usually consist of one word, a phrase or a sentence. This type of test items consist of factual questions that require very short answers that can be scored quickly and unambiguously by anyone with a scoring key. These tests are called objective since their scoring procedure is objective. Objectivity is the greatest strength of these tests.

Objective type tests can mainly be categorized into two types: Recall type or supply type and Recognition type or selection type. Answers to the recall type of questions must be supplied from examinee's memory, for which these items are also called supply type of items. In recognition type items, the examinees have to select one from the available alternatives as answer to the question; this is why this type of items are called selection type items.

The recall type items may further be divided into two types: simple recall and completion type items. A simple recall type item is given in the form of a direct question, which is presented as a simple interrogative sentence, answer to which must be given in a single word or a short sentence. Examinees have to supply the answer to such questions from their memory. Two examples of simple recall type item have been given below:

Example: Q1. Who was the first President of India?

Example: Q2. From which language the term "Educare" has been derived?

The completion type item is given as a sentence from which an important word or phrase is omitted. The examinee has to fill the blank by supplying the appropriate word or phrase missing in the sentence. Two examples have been given below:

Example: Q1. The capital of India is _____.

Example: Q2. Hero worship is an important characteristic of _____stage.

The retention type of items may be of different types. Some of the important ones are discussed below:

One of the most popular and widely used tests is the Alternate response type item. These items are given in the form of a sentence or statement to which the respondent has to reply by "yes or no", "true or false" or by putting "" or ×".

Example: Q1. Psychology is the science of soul. (True/False)

Example: Q2. Education is a lifelong process. (Yes/No)

Multiple choice types are another popular, widely used and superior type of objective items. A multiple choice item is usually a statement followed by four or five alternative responses from which only the best or correct one must be selected. The statement or question is called the 'stem' and the alternatives or choices are the 'options' and the correct alternative is called the 'key. Incorrect options or alternatives are called 'distracters'.

Example: The name of the capital city of India is -

(a) Mumbai (b) New Delhi

(c) Kolkata (d) Chennai

Matching is another retention type of objective item. This type of items requires linking contents of one list to contents in another list. The test items are presented in the form of two columns of interrelated contents and ask the testee to link or connect the contents.

Example:

Column A	Column B
Hunter Commission	1854
Kothari Commission	1952
Radhakrishnan Commission	1882
Mudaliar Commission	1964
Wood's Despatch	1948

Classification is another retention type of objective items in

which some words, phrase, names of objects, or some information is presented, among which one is odd or not related to the others. The examinees have to select the unrelated or odd item out.

Example: 1. Delhi, Mumbai, Rajasthan, Chennai

Example: 2. Brahmaputra, Yamuna, Allahabad, Kaveri

Arrangement is still another retention type of objective items in which some event, information, or steps of some task are given randomly which the examinee has to arrange in their logical or chronological sequence.

Example: September, February, December, July

Strengths of objective type test:

- Objective type items can be used to measure all the objectives of teaching.
- Items are clear, direct and unambiguous.
- More valid, reliable and objective.
- Scoring is fast and objective, which can be done by machines as well.
- Students cannot write irrelevant answers.
- Administration is easy.
- Objective type items can cover the whole content or curriculum.

Limitations of objective type test:

- Construction of objective type items is difficult and costly.
- Measures factual information, not understanding.
- Examinees may guess the correct answers.
- Objective items cannot develop the interest and habit of in depth study.
- Linguistic skills cannot be tested.
- Possibility of examinees using unfair means is higher.
- Higher mental abilities such as explanation, presentation, comparison, description etc cannot be tested.



CHECK YOUR PROGRESS

Q 3: What is diagnostic test?

.....

Q 4: What is a teacher-made achievement test?

.....

Q 5: What is objective type test?

.....

8.6.4 Difference between standardized tests and teacher-made tests

Though the main purposes of standardized and teacher-made achievement tests are same, they have significant differences in their construction, administration and scoring procedure. Some of such important differences are as follows:

Standardized tests	Teacher-made tests
Constructed by test experts	Constructed by classroom teachers
Standardized on a very large sample	Not standardized; prepared only for a single class of students
Only objective items are included	Objective as well as subjective items may be included
Passes through four stages—planning, preparation, try out and evaluation	Passes only through two stages—planning and preparation
Validity and reliability indices are estimated	Instead of estimating validity and reliability more emphasis is laid on covering the content
Item analysis done for selecting items	No analysis of items is done
Norms are developed for interpreting the scores	Norms are not fixed and hence interpretation remains incomplete
Administration, scoring and interpretation is uniform and standard	No uniformity in administration, scoring and interpretation
Construction is complex and costly	Construction is easy and economic

May not serve local and immediate classroom purposes	Constructed to serve local and immediate needs of the classroom
Can be used to compare the achievement of two different groups	Cannot be used to compare since the test is not standardized
Used mainly in research, instruction, guidance, selection and administrative works.	Used to measure achievement of students and institutions

According to Ross, there are four essential aspects in which a standardized test differs from a teacher-made test:

- The content is standardized, i.e., item-selection has been done vigorously, after careful scrutiny and by competent judges.
- Administration is standardized, i.e., directions, time-limit, etc., are worked out carefully.
- Scoring has been standardized, i.e., scoring keys are prepared, definite rules for scoring have been formulated etc.
- Interpretation has been standardized, i.e., norms for various groups are provided.



8.7 LET US SUM UP

The unit can be summarized in the following ways-

- Educational achievement refers to the knowledge, attainment, understanding, skill, performance, etc. acquired by an individual during the process of learning. This means, all desirable changes in student behaviour as a result of learning may be termed as educational achievement.
- Educational achievement is measured by standardised achievement test developed for school subjects. An achievement is a systematic procedure for determining the amount a student has learned through instructions. Moreover, many important educational achievements can be measured through examinations and tests of various types made by teachers.
- The main objective of achievement test is to determine the extent of success of the students in achieving the knowledge, skills or the

experiences that were provided to them. It measures what and how much an individual has learned or attained skills.

- Though achievement tests have been classified differently, all achievement tests can be broadly categorized into standardized tests and teacher-made tests.
- A standardized achievement test is a test that is administered, scored, and interpreted in the same way for all students and in all conditions of testing. A standardized test establishes uniformity of procedures for administration and scoring of the test.
- Standardized achievement tests include Readiness test, Diagnostic tests, Mastery test and General Achievement Tests. The general achievement tests may again be categorized into two types: (i) General Achievement Test Batteries, and (ii) Specialized Achievement Tests.
- Teacher made tests are prepared locally by classroom teachers to test educational achievement of their students. These tests may be of different types such as Essay type, Short answer type and objective type tests.
- Though the main purposes of standardized and teacher made achievement tests are same they differ with regard to their content, administration, scoring and interpretation.



8.8 FURTHER READING

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8.9 ANSWERS TO CHECK YOUR PROGRESS

Ans to Q No 1: An achievement test is a test that measures the attainments and accomplishments of an individual after a period of training or learning.

Ans to Q No 2: The main purpose of achievement test is to determine the extent of success of the students in achieving the knowledge, skills or the experiences that were provided to them.

Ans to Q No 3: A diagnostic test is one that assesses students' understanding of a subject, area or skill along with their specific strengths and weakness.

Ans to Q No 4: A teacher made achievement test is one that is prepared locally by a classroom teacher to meet the needs and purpose of testing educational achievement of his or her students.

Ans to Q No 5: An objective type test is one with items requiring short answers of one word, a phrase or a sentence. These items consist of factual information that can be scored objectively, quickly and unambiguously.

8.10 MODEL QUESTIONS

Short Questions (Answer each question in around 150 words)

Q 1: What is educational achievement?

Q 2: How educational achievement can be measured?

Q 3: Define standardized achievement test.

Long Questions. (Answer each question in around 300-500 words)

Q 1: Discuss about the different types of standardized achievement tests.

Q 2: Explain the procedure of teacher made achievement tests.

Q 3: Discuss about the relative merits and demerits of objective type and essay type test items.

Q 4: Distinguish between standardized tests and teacher made tests.

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