UNIT 2  SCALES AND TESTS

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2.2 Scales: Meaning and Techniques
2.3 Types of Rating Scales
2.4 Uses and Guidelines for Construction of Rating Scales
2.5 Rating Errors
2.6 Tests
2.7 Types of Objective Test Questions
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2.1 INTRODUCTION

Measurement plays an important role in any development research including urban development research. This is especially true when the measurement concepts are complex and when we do not possess the standardised measurement tools. To overcome this, social science researchers develop self reporting measuring instruments to assess people’s knowledge, opinion, perceptions, attitudes etc., on urban development programmes. Technically speaking these reporting measurement instruments are popularly called as scales and tests. The scales and tests are the most popular methods of observation and data collection in behavioural sciences and more particularly in development studies.

After studying this unit, you should be able to:

- discuss the meaning and applicability of scales and tests.
- describe the important types of scales and tests.
- explain the test construction methodology.

2.2 SCALES: MEANING AND TECHNIQUES

Scales are also popularly called as rating scales. ‘Rating’ is a term applied to an expression of opinion or judgment regarding some situation, object or character. A rating scale is a psychological measuring instrument that requires the rater or observer to assign the rated object to categories or continuum that have numerical assigned to them.

The rating scale is very useful device in assessing quality – especially when quality is difficult to measure objectively in the programmes of development.

Example: How good is the Jawaharlal Nehru National Urban Renewal Mission Programme?
Measurement and Sampling

The above question can be hardly answered objectively. In this context, rating scales measure or order entities with respect to quantitative attributes or traits of the above programme. Certain rating scales permit estimation of magnitudes of the programme on a continuum, while other methods provide only for relative ordering of the entities.

2.2.1 Important Scaling Techniques

The two important scaling techniques are:

- Comparative scaling
- Non-comparative scaling

With comparative scaling, the items are directly compared with each other.

*Example*: Do you prefer weekly or daily payment of wages under National Urban Employment Programme?

Here, the respondent compares ‘weekly’ or ‘daily’ payments and gives his choice to confer his / her opinion or views.

In non-comparative scaling each item is scaled independently of the others.

*Example*: How do you feel about daily payment of wages under National Urban Employment Programme?

Unlike the above, in this case there is no comparison and the respondent has to give his / her opinion on ‘daily’ payment of wages under National Urban Employment Programme.

**Activity 1**

Visit a nearby any development department and enquire about scales and tests that they are using in measurement of outcomes of development programmes. Write your observations.

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**Check Your Progress 1**

**Note:** a) Use the spaces given below for your answers.

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

1) What do you mean by tests and scales in the context of development research?

........................................................................................................................
........................................................................................................................
........................................................................................................................
........................................................................................................................
2) What do you mean by a rating scale?

3) Write the difference between comparative and non-comparative scaling techniques.

2.3 TYPES OF RATING SCALES

The rating scale involves qualitative description of a limited number of aspects of a thing or of traits of a person. These ratings may be in such forms as:

1) like – dislike (2 categories)
2) above average – average – below average (3 categories)
3) like very much – like somewhat – neutral – dislike somewhat – dislike very much (5 categories)
   - excellent – good – average – below average – poor (5 categories)
   - always – often – occasionally – rarely – never (5 categories)
   - very strongly agree – strongly agree – agree – neutral – disagree – strongly disagree – very strongly disagree (7 categories)

There is no specific rule whether to use a two points scale, three point scale or with more points. In practice, odd number scales with three, five or seven points are popularly used for the simple reason that more points on a scale provide an opportunity for greater sensitivity of measurement.

Some of the important types of rating scales are:

i) The graphic rating scale
ii) The descriptive rating scale
iii) The numerical rating scale
iv) The itemized rating scale
2.3.1 Graphic Rating Scale

Graphic rating scale (also called continuous rating scale) is quite simple and is commonly used in practice. Graphic scale makes use of continuum along which the rater places a mark (v) on a line to indicate his / her rating with respect to certain characteristics. The line is usually labeled at each end. There are sometimes a series of numbers, called scale points under the line.

Example: Teachers often describes students personality during evaluation. The following is an example of graphic rating scale on personality rating of students.

Directions: Please give your frank opinion concerning the students’ characteristics by putting an ‘X’ at the point along the scale that best describes the student.

a) Cooperation .................................................................
   (Consider willingness Obstructive Always willing to work with others)

b) Emotional Stability ..........................................................
   (Consider reactions in stress Unstable Well balanced)

Advantages
• One of the major advantages of graphic rating scale is that they are relatively easy to use.
• Graphic scale provides opportunity for a given discrimination as that of which the mater is capable and the fineness of scoring can be as great as desired.

Limitations
• Respondents may check at almost any position along the continuum which increases the difficulty of analysis.
• Meanings of the terms like obstructive, always willing, etc., may depend upon respondent’s frame of reference.

To overcome the limitations, several other rating variants (example: boxes replacing line) may be used.

2.3.2 Descriptive Scale

It is a variation of the graphic rating scale. It provides descriptive works or phrases that indicate the degree to which individual is believed to possess certain characteristic.

Example of a behavioural rating scale:

Direction:- For each of the items listed in this scale, place a ‘X’ in one of the columns to indicate the extent to which you feel that the student possesses the particular characteristic kind of behavior.

<table>
<thead>
<tr>
<th>Item</th>
<th>Never</th>
<th>Seldom</th>
<th>Sometime</th>
<th>Usually</th>
<th>Always</th>
</tr>
</thead>
<tbody>
<tr>
<td>Listens to others opinion</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Accepts constructive criticism</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
**Example:** Suppose you would like to collect data on liking of information sources on development programmes from your study respondents. The following is an example of five- points graphic rating scale on liking of information sources.

How do you like the following information sources for obtaining information on development programmes?

<table>
<thead>
<tr>
<th>Information source</th>
<th>Liking of information source</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Like very much</td>
</tr>
<tr>
<td><strong>Institutional Sources</strong></td>
<td></td>
</tr>
<tr>
<td>BDO</td>
<td></td>
</tr>
<tr>
<td>VDO</td>
<td></td>
</tr>
<tr>
<td>Extension Personnel</td>
<td></td>
</tr>
<tr>
<td>Any other ( Please specify)</td>
<td></td>
</tr>
<tr>
<td><strong>Non Institutional Sources</strong></td>
<td></td>
</tr>
<tr>
<td>Other Beneficiaries</td>
<td></td>
</tr>
<tr>
<td>Key Personnel</td>
<td></td>
</tr>
<tr>
<td>Own Family Members</td>
<td></td>
</tr>
<tr>
<td>Any other ( Please specify)</td>
<td></td>
</tr>
<tr>
<td><strong>Mass Media Sources</strong></td>
<td></td>
</tr>
<tr>
<td>Radio</td>
<td></td>
</tr>
<tr>
<td>TV</td>
<td></td>
</tr>
</tbody>
</table>

### 2.3.3 Numerical Rating Scale

The numerical scale makes use of numbers to indicate the extent to which an individual is believed to possess certain characteristic or kinds of behaviour.

**Example of a behaviour rating scale:**

Directions: As you rate the student on each of the following items, circle 1 for inferior, 2 for below average 3 for average, 4 for above average and 5 for superior.

1) Cooperates with students 1 2 3 4 5
2) Cooperates with teachers 1 2 3 4 5
3) Maintains an attractive appearance 1 2 3 4 5

### 2.3.4 Itemized Rating Scale

It is also referred to as specific category scale. In this type of scale, the respondent selects or picks the one that best characterizes the behaviour or characteristic of the object being rated. Suppose a teacher’s classroom behaviour is being rated. The characteristics rated say may be alertness or imaginativeness.

A category item might be ‘how alert is he / she?’ (Check one).

a) very alert
b) Alert
c) Not alert
d) Not at all alert

A slightly different category item might be ‘how imaginative is he/she?’ (check one)
a) Extremely imaginative
b) Very imaginative
c) Imaginative
d) Unimaginative
e) Very unimaginative
f) Extremely unimaginative

2.4 USES AND GUIDELINES FOR CONSTRUCTION OF RATING SCALES

2.4.1 Uses of Rating Scale

Rating scales are most commonly used instruments for making appraisals. Typically, they direct attention to a number of aspects or traits of the thing to be rated and provide a scale for assigning values to each of the aspects of characteristics of a person or phenomenon through the use of a series of numbers, qualitative terms, and named attributes of verbal descriptions.

Rating scales have been successfully used in:
- Teacher rating – for selection, evaluation and prediction.
- Personality rating – for various purposes.
- Testing the validity of many objective instruments like inventories of personality.
- School appraisal – including appraisal of courses, practices and programmes.

2.4.2 Guidelines in Construction of Rating Scales

i) Rating scales include three factors:
- The subjects or phenomena to be rated
- The continuum along which they will be rated
- The judges who will do the rating

The subjects or phenomena to be rated are usually a limited number of aspects of a thing, or of traits of a person. Therefore, only the most significant aspects for the purpose of the study should be chosen.

ii) A rating scale may have as many divisions as can be readily distinguished by the rates. Practically most scales have no more than 7 divisions. However, usually they contain five divisions. By numbering each division in sequence the description can be converted into arithmetic values for averaging and for further statistical application.
iii) The rating scale is composed of two parts:

- an instruction which names the subject and defines the continuum and
- a scale which defines the points to be used in rating

iv) Usually we can arrange the rating scales in four ways:

a) On a straight line eg:

<table>
<thead>
<tr>
<th>Very good</th>
<th>Good</th>
<th>Average</th>
<th>Poor</th>
<th>Very poor</th>
</tr>
</thead>
</table>

b) Ratings be marked in a column at the right with an instruction to encircle / underline the response.

- IGNOU course material was: Very good/ Good/ Average/ Poor/ Very poor

c) The scale can run down the page and look much like a checklist.

Example: For me the concepts presented in IGNOU course material:

- was very difficult to understand
- was difficult to understand
- was reasonably understandable
- was clearly understandable
- contained nothing new.

d) The scale may call for ranking like which course of the IGNOU’s programme helped you most? Rank them by starting with one for the best unto least

*Example: Suppose there are four courses in the programme viz., a, b, c, d and out of the four ‘c’ helped you most

c = 1  ‘c’ is ranked highest.
b = 3
d = 2
a = 4

The other way is rank these courses in order of merit – starting with 1 for best

1c  3b  2d  4a

This type of ranking is a higher form of rating whereby individuals or phenomena are arranged in order of merit (i.e.) they are given position determined by their relation to the others in the group, not by certain predetermined standards. But is cannot be used when large numbers are concerned.

The investigator must arrange his items in any or all of the above forms according to the nature of the item and its purpose.
Measurement and Sampling

v) Anyone can serve as a rater where non-technical opinions, likes, dislikes and matters of easy observation are to be rated. But only well-informed and experienced persons should be selected for rating where technical competence is required.

vi) Pooled judgements increase the reliability of any rating scale. Employ several judges, depending on the rating situation to obtain desirable reliability. Individual ratings when combine into final rating give a safer assessment.

2.5 RATING ERRORS

Rating scales are subjected not only to errors inherent in their design but also to errors that are related to the way in which raters have marked the scale. Some of them are discussed below for your understanding.

**Halo Effect**: This is an error that occurs when a rater tends to rate an individual high or low on several characteristics because of a general impression that the rater has towards subject whom (s)he is rating. For example if a teacher assesses the quality of all essay test questions higher/lower than they should be based on the answer of the first question.

**Personal Bias**: It is an error that is made when a rater is prejudiced with regard to a certain group and tends to rate individual who belong to that group too higher or too low.

**Logical Error**: It results when the rater does not fully understand the term used in the rating scale.

**Error of Central Tendency**: It occurs when a rater does not have enough information about the individual to be rated and tends to rate the person as average. The rater feels that average ratings are safer to make than extreme ratings, because errors that are as a result of guessing will perhaps be smaller.

**Generosity Error**: It occurs because sometimes raters are very reluctant to give any ratings at the lower end of the scale. They tend, therefore, to rate every one as average or above average on all characteristics.

**Error of Severity**: This is an important source of constant error. It is a general tendency to rate all individuals too low on all characteristics.

**Error of Leniency**: This is the opposite to error of severity. The general tendency is to rate too high. A good fellow who likes every body and the likeness is reflected while rating.

It is impossible to eliminate these kinds of errors, but certain steps can be taken to minimize them. One suggested step is to inform the rater, either orally or in writing, about the possible source of error in rating and then urge him/her to be as objective as possible. Another suggestion is to construct the rating scale in such a way as to lower the possibility of error on the rater’s part.

2.5.1 How to Overcome the Errors in Rating Scales?

There will be a certain amount of measurement error which results from the structural characteristics of rating scales. By adhering to the following rules of construction, however, it is possible to minimise these kinds of errors.
i) Provide direction to assist the rater in the use of the scale

ii) Use only enough items to obtain the information needed

iii) Clearly define each characteristic on which an individual is rated

iv) Use only those traits or characteristics in rating scales that can be observed readily

v) Define clearly the degree or different levels of gradation that are to be used in the scale (At least 4 or 5 gradations are recommended)

vi) Provide ample space between the items so that the descriptive phrases and the rating lines are not crowded.

vii) Position the ‘average’ or ‘neutral’ phrase at the centre of the rating line

viii) Try to avoid the use of phrases that are so extreme at the end positions of the scale that the raters will tend to avoid making them.

Check Your Progress 2

Note: a) Use the spaces given below for your answers.

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

1) Write the examples for the following categorization of rating scales

3 divisions: ........................................................ ........................................................

.............................................................................................................................

5 divisions: ........................................................ ...............................................................

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2) Name the four important types of rating scales.

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3) Name the common rating errors.

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2.6 TESTS

The tests are frequently used in education and psychological researches and more recently in development studies to measure the achievement and personality tract of various categories of respondents.

According to the dictionary ‘test’ is defined as a series of questions on the basis of which some information is sought. According to Bean (1953) a test is “an organized succession of stimuli designed to measure quantitatively or to evaluate qualitatively some mental process, trait or characteristics”.

The two types of tests popularly used are:
- Objective Tests
- Teacher-Made Tests

2.6.1 Objective Tests

There are various types of objective tests viz.,

i) Achievement Test
ii) Diagnostic Test
iii) Intelligence Test
iv) Aptitude Test
v) Personality Test

Achievement Test

Achievement or proficiency test is one, which measures the extent to which a person has acquired certain information or proficiency as a function of instruction or training. The achievement test is used in order to assess the achievement of a person in certain areas. For example a teacher can conduct a test to assess the student achievement in mathematics.

Diagnostic Test: This test intends to assess the strength and weakness of a person in one or more than one areas of his/her activities. It is conducted with a view to carry out interventions in weak areas. It also makes an enquiry about the weak areas of the respondent may be a student, employee or worker.

Intelligence Test: The intelligence test is prepared to measure the intelligence of a person. This test is used by the psychologists and educationists to measure the intelligence of students. Intelligence is measured in terms of intelligence quotient (IQ). The intelligence quotient is the ratio of the mental age to the chronological age. This ratio is multiplied by hundred for obtaining an integral value of quotient. The IQ gives an index of ability.

\[
IQ = \frac{\text{Mental Age}}{\text{Chronological Age}} \times 100
\]

Aptitude Test: An aptitude is a person’s conditions, a pattern of traits and demand to be indicative of his potentialities. According to Freeman (1962) aptitude is a combination of characteristics indicative of an individual’s capacity to acquire
some specific knowledge. The aptitude test is used in various competitive examinations such as banking, insurance and management organizations.

**Personality Test:** Personality test intends to measure the personality traits of the individuals. Some of the personality traits are cooperation, discipline, leadership, personal appearance, punctuality, patriotism, confidence, team spirit, etc.

### 2.6.2 Teacher Made Tests

The teacher made test are also called the non-standardized tests. Teachers have the obligation to provide the best possible instructions to the students. In order to judge the performance of the students, teachers assess the performances of the students from time to time. These are useful:

- To assess the extent and degree of student progress.
- To ascertain individual strength and weaknesses.
- To motivate the students.
- To provide immediate feedback.
- To provide continuous evaluation.

### 2.7 TYPES OF OBJECTIVE TEST QUESTIONS

Various types of objective test questions used in research studies are as follows:

- i) True/False
- ii) Multiple choice
- iii) Fill in the blanks
- iv) Matching
- v) Completion

**True/False Test:** The true/false or yes/no or right/wrong type of tests are most commonly used. It is used to determine the respondent’s ability to recall the facts.

*Example:* India follows mixed economy system  True [ ] False [ ]

**Multiple Choices Test:** In the multiple choice test, the respondents are given multiple option of a question. Here the choices or the alternatives should be written in such a way that it may not create ambiguity in the mind of respondents. The multiple choices may contain more than one valid choice.

*Example:* Which is not the indicator of Human Development Index?

- i) Life Expectancy
- ii) Literacy
- iii) Per capita income
- iv) Poverty level
**Fill in the Blanks:** In the fill in the blanks question, the respondent is asked to supply correct answer to the blank left in the statement. However, while formulation of fill-in-the-blanks test, too many blanks should not be provided which will create confusion in the minds of respondents. One example of fill in the blanks is given below:

*Example:* The JNNURM started in the year ———————

**Matching:** In the matching test, there are two columns right and left. The items on the left column are to be paired with items on the right column. Items on the left which constitute a set of related streams called premises and items on the right are is called cassette options or responses of the items.

*Example:* Match column A with B

<table>
<thead>
<tr>
<th>Column A</th>
<th>Column B</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Mouse</td>
<td>Bicycle</td>
</tr>
<tr>
<td>2. Wheel</td>
<td>Computer</td>
</tr>
<tr>
<td>3. Remote</td>
<td>Television</td>
</tr>
</tbody>
</table>

**Completion:** Completion test is one which is presented in the form of an incomplete statement. This is also called supply type of test.

*Example:* There is a famous saying ‘all is well that ends well’

### 2.8 TEST CONSTRUCTION

Construction of a test is very important in order to arrive at accuracy in the result. The various steps adopted in test construction are as follows:

i) Planning of the test

ii) Writing items of the test

iii) Preliminary administration of the test

iv) Item Analysis

v) Establishing Reliability of the test

vi) Establishing Validity of the test

vii) Preparation of norms for the final test

viii) Preparation of manual and reproduction of the test

**Planning of the Test:** At the outset, the tests are to be carefully planned. While planning, the test constructor has to take into consideration, the general and specific objectives of the test in clear terms and the nature of the content or items to be included.

**Writing Items of the Test:** Item writing is one of the very important aspects of test construction. Although there is no set rule for item writing, yet lot depends on the ingenuity, intuition, experience, knowledge, practice and imagination of the test constructor. It can be said that writing test item is essentially an art.

**Preliminary Administration:** After the items are written, it is better to tryout them. It will help the test constructor to find out the weaknesses and inadequacies
in test items. It helps in finding out the appropriate length and time limit of the tests administration.

**Item Analysis**

After the items are being written, they are carefully analysed and reviewed. In item analysis, items are validated and suited for the purpose. The objectives of item analysis are as follow:

- Helps to indicate the difficulty level of the item such as which is more difficult, moderately difficult or easy.
- Help to provide indication regarding the ability of the item to discriminate between inferior and superior item.

Two common indices used in item analysis are:

- Difficulty Index
- Discrimination Index

**Difficulty Index:** The difficulty index indicates how difficult an item is? The difficulty value of an item indicates the proportion or percentage of candidates who have given correct answer. This proportion or percentage is called Item Difficulty Index. The formula used for the calculation of item difficulty index of each item is given below.

\[
\text{IDI} = \frac{R}{N}
\]

IDI = Item difficulty index

R = Number of right responses

N = Total number of candidates attempting that item.

Besides this method which takes into consideration all the examinees, there is also another method which can determine the index on the basis of only a portion of the examinee. The formula is:

\[
\text{IDI} = \frac{R_U + R_L}{N_U + N_L}
\]

Where

IDI = Item Difficultly Index

R_U = Right responses in the Upper group

R_L = Right responses in the Lower group.

N_U = Number of examinees in Upper group

N_L = Number of examinees in the lower group

For example if there are 200 examinees of a test, N_U=50 and N_L=50. Out of these groups R_U=25 and R_L=25

Then:

\[
\text{IDI} = \frac{25+25}{50+50} = \frac{50}{100} = 0.50
\]
**Discrimination Index**: The discrimination index distinguishes between the well-informed examinees to that of the less-informed examinee. It is the degree to which the single item separates the superior from the inferior individuals in the trait or group of trait being measured.

\[
\text{DI} = \frac{R_h - R_L}{N}
\]

Where:
- \(\text{DI}\) = Discrimination Index
- \(R_h\) = Number of rights in the higher ability group
- \(R_L\) = Total Number of rights in the lower ability group.
- \(N\) = Total number of examinees in either of the group.

Let us explain this with the help of an example. After getting the responses from 100 examinees they were divided into upper group (25%) and lower group(25%). Suppose in a particular item, right responses in the upper group is 80 and right responses in the lower group is 60, then the item discrimination index is:

\[
\text{DI} = \frac{80 - 60}{100} = 0.20
\]

This value of 0.20 clearly states that item has negligible discriminatory power. Such items are usually dropped or suitably modified.

The factor which influences item difficulty and item discrimination index are:
- The ambiguity and complexity of items in a test item may lower the difficulty index value of the item.
- Previous learning experiences may be helpful in deciding the item difficulty index or discrimination index.
- It depends on the ability of the test constructor to effectively frame the distracters. They must be appealing to those who do not know the correct answer.

**Establishing Test Reliability**: Finally test is administered to find out their reliability. Reliability is the degree to which a test measure whatever it actually measures.

**Validity of the Test**: Validity means what the test measures. There are various kinds of validity viz., criterion- referenced validity and construct validity.

**Norms of the Test**: Norms are set to meaningfully interpret the scores obtained on the test. The common types of norms are the age norms, the grade norms, the percentile norms, etc. For example a test constructed for class-v student should not be administered over the class-viii student.

**Preparation of the Manual and Reproduction Test**: Finally, the constructors has to produce a manual which will give a clear cut instruction regarding the procedures of the test administration, the scoring methods, time limit, etc.
Check Your Progress 3

Note:  a) Use the spaces given below for your answers.
       b) Check your answer with those given at the end of the unit.

1) What do you mean by test?
   .......................................................................................................................
   .......................................................................................................................
   .......................................................................................................................
   .......................................................................................................................
   .......................................................................................................................

2) Name the various types of objective tests.
   .......................................................................................................................
   .......................................................................................................................
   .......................................................................................................................
   .......................................................................................................................
   .......................................................................................................................

3) Name the various types of objective test questions.
   .......................................................................................................................
   .......................................................................................................................
   .......................................................................................................................
   .......................................................................................................................
   .......................................................................................................................

4) Write the objectives of item analysis.
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   .......................................................................................................................
   .......................................................................................................................
   .......................................................................................................................
   .......................................................................................................................

2.9 LET US SUM UP

In this unit we started by discussing the meaning of rating scales and understood that rating scale is very useful device in assessing quality – especially when quality is difficult to measure objectively in the programmes of development. Then we examined the two important scaling techniques viz., comparative and non-comparative scaling techniques. We also described the four types of rating scales viz., graphic, descriptive, numerical and itemized rating scales with
examples. Later we discussed the important rating errors. In the second part of the unit we have discussed the concept and two types of tests viz., objective and teacher-made tests. Later various types of objective tests viz., achievement, diagnostic, intelligent and aptitude tests were discussed. At the end we discussed the test construction methodology.

### 2.10 KEYWORDS

<table>
<thead>
<tr>
<th>Scales and Tests</th>
<th>: They are the self reporting measuring instruments to assess people’s knowledge, opinion, perceptions, attitudes etc.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rating Scale</td>
<td>Is a psychological measuring instrument that requires the rater or observer to assign the rated object to categories or continuum that have numerical assigned to them.</td>
</tr>
<tr>
<td>Index</td>
<td>Indexes are similar to scales except multiple indicators of a variable are combined into a single measure.</td>
</tr>
<tr>
<td>Graphic Rating Scale</td>
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<td>It provides descriptive works or phrases that indicate the degree to which an individual is believed to possess certain characteristic.</td>
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<td>It makes use of numbers to indicate the extent to which an individual is believed to possess certain characteristic or kinds of behaviour.</td>
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<td>In this type of scale, the respondent selects or picks the one that best characterizes the behaviour or characteristic of the object being rated.</td>
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<tr>
<td>Halo Effect</td>
<td>An error that occurs when a rater tends to rate an individual high or low because of a general impression that the rater has towards subject.</td>
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<td>The general tendency to rate too high.</td>
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<tr>
<td>Test</td>
<td>Test is an organized succession of stimuli designed to measure quantitatively or to evaluate qualitatively some mental process, trait or characteristics.</td>
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<td>Achievement Test</td>
<td>Is one which measures the extent to which a person has acquired certain information or proficiency as a function of instruction or training.</td>
</tr>
</tbody>
</table>
Diagnostic Test: This test intends to assess the strength and weakness of a person in one or more than one areas of his/her activities.

Intelligence Quotient: It is the ratio of the mental age to the chronological age multiplied by hundred.

Difficulty Index: The difficulty index indicates how difficult an item is in the test.

 Discrimination Index: The discrimination index distinguishes between the well-informed examinees to that of the less-informed examinee. It is the degree to which the single item separates the superior from the inferior individuals in the trait or group of trait being measured.

2.11 REFERENCES AND SELECTED READINGS


2.12 CHECK YOUR PROGRESS – POSSIBLE ANSWERS

Check Your Progress 1

1) In the context of development research, scales and tests are the self reporting measuring instruments to assess people’s knowledge, opinion, perceptions, attitudes etc.

2) A rating scale is a psychological measuring instrument that requires the rater or observer to assign the rated object to categories or continuum that have numerical assigned to them.

3) With comparative scaling, the items are directly compared with each other and in non-comparative scaling, each item is scaled independently of the others.

Check Your Progress 2

1) Three divisions: above average – average – below average

   Five divisions: like very much – like somewhat – neutral – dislike somewhat – dislike very much

2) The four important types of rating scales are: graphic; descriptive; numerical and itemized rating scales.
3) The common rating errors are: halo effect; personal bias; logical error; error of central tendency; generosity error; error of severity and error of leniency.

Check Your Progress 3

1) Test is an organized succession of stimuli designed to measure quantitatively or to evaluate qualitatively some mental process, trait or characteristics.

2) Various types of objective tests are: achievement test; diagnostic test; intelligent test; aptitude test and personality test.

3) Various types of objective test questions are: true/false; multiple choice; fill in the blanks; matching and completion.

4) The objectives of item analysis are: to indicate the difficulty level of the item such as which is more difficult, moderately difficult or easy and to provide indication regarding the ability of the item to discriminate between inferior and superior item.