UNIT-11 MEASUREMENT OF ATTITUDE

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11.1 LEARNING OBJECTIVES

After going through this unit, learner will be able to-

- describe meaning and characteristics of attitude.
- explain measurement techniques of attitude.
- describe Thurstone's scale.

- describe Likert type scale.
- discuss indirect scales.
- describe uses of attitude scale
- describe limitations of attitude scale

11.2 INTRODUCTION

Learners, we know that, we tend to approach and seek out to be associated with things we like and we avoid, ignore or reject things we do not like. Attitudes are expressions of how much we like or dislike various things. In psychology, attitudes constitute valuable elements for the prediction of behaviour. They are pre-conceived and they become part of our nature. Attitude influences an individual's choice of action, and responses to challenges. An understanding of attitudes is also important because attitudes help people adapt to their environment. Learners, in this unit you will learn about attitudes testing.

11.3 MEANING OF ATTITUDE

Learners, now let us discuss about the meaning of attitude. The attitude is the voluntary disposition of a person. It may be explained as a mental preparedness which provides stimulus for an individual in some directions. All people, irrespective of their status or intelligence, hold attitudes. Attitude is a psychological tendency to respond consistently positively or negatively towards certain idea, object, person, or situation. A positive attitude is a strong-willed and optimistic reaction to adversity, and a negative attitude is a harrowing vision, with the consequent reaction apathetic or aggressive

Attitude is a mental and emotional response to the variety of circumstances that occur in life. From this point of view attitude refers to a set of emotions, beliefs, and behaviours toward a particular object, person, thing, or event, one holds towards a person, object, task or idea. These are consequence of a cognitive, affective and behavioral process. Attitudes are generalized ways of behaving and viewing situations which are inferred from the verbal and non-verbal behaviour of the individual. It is expressed

outwardly, through gestures, movements, words, cries, laughs, tears, or sometimes stillness and apathy, but it responds to internal, cognitive and affective stimuli. The attitude is rather a social motivation rather than a biological motivation. The scale of values that constructs a person throughout his life, will contribute to the attitudes that manifests. We cannot have an attitude to what is not known or is not valued as good or bad.

While attitudes are enduring, they can also be subjected to change. Attitudes develop and change in a number of different ways. Psychologists define attitudes as a learned and adopted tendency. Attitudes develop gradually as a result of individual's experiences. From experience, people acquire a certain predisposition that allows them to respond to stimuli. These are results of stimulus and response as well as the muscular preparation for the response set-up in the neuro-muscular system. Thus, attitudes are defined as a state of the nervous and mental disposition that is organized from the experiences and guides or directs the response of a person to certain events. Like most abstract terms in the English language, attitude has more than one meaning.

- It must have definite orientation in the world of objects (or values), and in this respect differ from simple and conditioned reflexes.
- It must not be an altogether automatic and routine type of conduct, but must display some tension even when latent.
- It varies in intensity, sometimes being predominant, sometimes relatively ineffective.
- It is rooted in experience, and therefore is not simply a social instinct.

11.4 DEFINITIONS OF ATTITUDE

The following definitions of attitude forwarded by different psychologists will provide us with a clear understanding of the term attitude-

- Thurstone said, "An attitude denotes the sum total of man's inclinations and feelings, prejudice or bias, pre-conceived notions, ideas, fears, threats and other any specific topic."
- Freeman hold that - "An attitude is a dispositional readiness to

respond to certain situations, persons or objects in a consistent manner which has been learned and has become one's typical mode of response. For example, one's views regarding a class of food or drink (such as fish, liquors), sports, mathematics or democrats are attitudes."

- According to Anastasi - "An attitude is often defined as a tendency to react favorably or unfavorably toward a designated class of stimuli, such as a national or racial group, a custom or an institution."
- According to Allport - "An attitude is a mental and neural set of readiness exerting directive dynamic influence upon the individual's response to all objects and situations with which it is related.
- Kimball Young's opinion about attitude is - "An attitude may be defined as a learned and more or less generalized and affective tendency or predisposition to respond in a rather persistent and characteristic manner, usually positively or negatively (for or against) in reference to some situation, idea, value, material object or class of such objects or person or group of persons."
- Whittaker: "An attitude is a predisposition or readiness to respond in a predetermined manner to relevant stimuli."
- According to N.L. Munn, "Attitudes are learned predispositions towards aspects of our environment. They may be positively or negatively directed towards certain people, service or institution."
- Barr, David, Johnson: "An attitude may be defined as a learned emotional response set for or against something."
- L.L. Bernard : " The behavior which we define as attitudinal or attitude is a certain observable 'set' organism or relative tendency preparatory to and indicative of more complete adjustment."

In short, it can be concluded that the attitude is a state in which man moves to act or do anything in response to a situation or condition of the objects in the surrounding environment. Based on various definitions of attitudes, we can explain attitude as lasting beliefs and cognitions in general, endowed with an emotional charge in favour or against a defined object,

which predisposes to a consistent action with cognitions and emotions relating to that object.

11.5 NATURE OR CHARACTERISTICS OF ATTITUDE

The characteristics or features of attitude include the following--

- Attitudes are the complex combination of things we tend to call personality, beliefs, values, behaviours, and motivations. It indicates the sum total of a man's inclinations and feelings.
- An attitude is an expression of favour or disfavour toward a person, place, thing, or event (the attitude object). It may fall anywhere along a continuum from very favourable to very unfavorable.
- An attitude exists in every person's mind. It guides or motivate the behaviour of the individual in a particular direction. It helps to define our identity, guide our actions, and influence how we judge people.
- Attitudes are learned or acquired.
- Attitudes are mental and neural state of readiness organized as a result of individual's experiences.
- An attitude may be considered as "response consistency." Thus, attitude may be of relatively permanent nature, but changes may be effected in them in suitable and relevant situations. Thus the nature of attitude is dynamic.
- Attitudes constitute one aspect of an individual's personality. It includes certain aspects of personality as interests, appreciations and social conducts.
- The unconscious motive is a very important factor in the creation of attitudes. Sometimes an individual is unaware about the reason of their attitude.
- An evaluative disposition attitudes are based upon cognitions, affective reactions, behavioral intentions and past behaviours.
- Although the feeling and belief components of attitude are internal to a person, we can view a person's attitude from his or her resulting behavior. Various kinds of affective experiences are also attached

to attitudes.

- An attitude has different aspects- such as direction, intensity, generality or specificity
- Attitudes are considered undercurrents variables, not be directly observable but subjected to observable inferences

In short an attitude is an affective feeling of liking or disliking toward an object (which can be basically anything) that has an influence on behavior.



LET US KNOW

There are several different components that make up attitudes. The components of attitudes are sometimes referred to as CAB or the ABC's of attitude.

- **Cognitive Component:** your thoughts and beliefs about the subject belief or opinions held consciously
- **Affective Component:** how the object, person, issue, or event makes you feel emotions or feelings.
- **Behavioral Component:** how the attitude influences your behavior inclination for action. And another component is-
- **Evaluative:** positive or negative response to stimuli.

Attitudes can also be explicit and implicit.

- Explicit attitudes are those that we are consciously aware of and that clearly influence our behaviors and beliefs.
- Implicit attitudes are unconscious but still have an effect on our beliefs and behaviors.



CHECK YOUR PROGRESS

Q 1: What is an attitude?

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Q 2: Mention two points regarding nature of attitude.

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11.6 IMPORTANCE OF ATTITUDE TESTING

An attitude is an important trait of personality. The development of desirable attitude is one of the main objectives of education. Attitudes give clues regarding adjustment and personality. For example, our attitudes towards different situations determine our mode of reaction and adjustment in these situations. Thus, attitude testing is an important part of the comprehensive process of educational evaluation. When the attitudes of an individual is observed, it is feasible to foresee its mode of action. Psychology has undoubtedly contributed greatly to the identification of attitudes and its possible control. Measurement of attitude is a major concern in different areas of education. Personnel at all levels are involved in assessing attitudes and providing activities conducive to the formation of desirable attitudes.

Appropriate attitude formation is an important aspect of education. It is essential in educational setting to study the attitudinal changes that are brought about through the process of education. It is possible to know the extent to which the necessary attitudes have been developed among the students. Attitudes are significant for satisfaction and success in the educational and vocational fields. They play an important role on the success in different vocations. Different types of profession require different attitudes.

The attitude of a person in Armed Forces is different from one in teaching profession. An educational and vocational plan related to the child's ability and aptitude may fall short of realization because it is not consistent with his attitude. Attitudes determine the choice of career plans. Attitudes can be tested through various techniques.

11.7 MEASUREMENT OF ATTITUDE

Attitudes are measurable and as such we can assess how they might affect behaviour. This attitude measurement is a procedure in which individuals' attitudes and responses are assigned quantitative values. Thus attitude measurement refers to assigning numerals to the person's attitude towards the object in question. Attitude is an abstract, complex and ultimately a hypothetical construct that cannot be observed directly. Thus its measurement is a difficult and controversial task. It is being remarked that psychological measurement in general and attitude measurement in particular, are not measurements in the true sense.

Teachers, of course, are more likely to assess attitude with informal instructions or observations etc. than with standardize attitude test. But measurement of attitudes is not a new field, since pioneers as H.H. Remmers and L.L.Thurstone have done work in this field for many years. The critical point in the measurement of the real attitudes of the individual is his verbal behaviour or his non-verbal overt behaviour. Perhaps the most straightforward way of finding out someone's attitudes would be to ask them. However, attitudes are related to self-image and social acceptance (i.e. attitude functions). In order to preserve a positive self-image, people's responses may be affected by social desirability. For this there is the need for instruments which do not destroy the natural form of the attitude in the process of describing it. Psychometricians devised suitable techniques to measure attitudes quantitatively. But here the question arises whether an individual is to be judged by his actions according to his words or according to his attitude scale scores. It is worth mentioning that attitude being a complex affair cannot be wholly described by any single numerical index.

11.7 TYPES OF ATTITUDE TEST

There are several ways of measuring attitudes toward self, others, and a variety of activities, institutions, and situations. These are -

- Attitude scales
- Rating scales
- Indirect scales

11.8.1 Attitude scales

Attitude scales are most widely used tools to measure attitudes. Attitude scales began to be devised which could assess attitudes in a quantitative manner. The Dictionary of Education (1959) defines an attitude scale as "an attitude measuring instrument, the units of which have been experimentally determined and equated, designed to obtain quantitative evaluation of an attitude to be distinguished from attitude questionnaire in which there is no such rational equality of units." First attitude scale was devised by L.L.Thurstone in 1929. Attitude scales reveal the reactions of the individual towards particular things/subjects and from these reactions his attitude can be deduced.

These attitude scales attempt to determine what an individual believes, perceives or feels. These scales provide the relative position of an individual along a unidimensional attitude continuum in quantitative terms. The aims of these scales are to locate upon a measure extending from one limit of acceptance to the other limit of refused. An individual's position is determined in between these two. They yield a score based on the individual's response to the statements pertaining to the issue under consideration. Thus attitude scales are self-report inventories designed to measure the extent to which an individual has favourable or unfavourable feelings towards some persons, objects, institutions or ideas.

Construction of attitude scale is rather different from other

tools. In a test of ability an examinee either passes an item or he does not. Items are either too easy or two difficult for him. Attitude scale presents some unique problems in form of some statements. As a whole, it indicates his attitude in that context. The examinee simply reflects his/her opinions with reference to the statements given. The scale can be a success only when the statements contained in it and the answers which are forth coming to them have a psychological relation with the attitude measured. According to Freeman attitude scales are based upon several assumptions. These are--

- The scale should deal with a controversial question.
- An individual's feelings and insights in regard to the question will determine his responses to the various statements that are made pro and con; and
- The statements can be scaled regarding the degree to which they favour, or are opposed to the question under consideration.

There are many forms of attitude scale in psychology for attitude testing. In building these scales care is needed to see that these are valid, that is, adequacy in serving purpose for which it is intended. These scales are differed in respect of the method of their construction and kind. There are various methods of attitude scale construction. On the basis of methods of construction, the attitude scales may be classified as below -

11.8.1 (a) Thurstone's scale

This method was developed by Thurstone and his associates. In 1928 Louis Leon Thurstone published an article titled "Attitudes Can Be Measured". In it he proposed an elaborate procedure to assess people's views on social issues. Thurstone and his colleagues constructed some scales for the measurement of opinion and attitude of human groups concerning varied questions like- War, the Church, Negroes, Capital punishment, birth control etc. It seeks

to analyze people on a continuous scale having equal-appearing units. For this reason this technique is also known as the method of **"Equal -appearing intervals."** In this type of scales scale values and other characteristics are largely determined by a panel of judges. Thurstone scale construction method was constituted of the following steps--

1. **Preparing statements:** In the beginning a large number of simple statements which express some kind of opinion (agree/ disagree) about the attitude objects under study are collected. For example, if we wanted to find out people's attitudes towards immigrants, our statements might include:
   - Immigrants drain social services.
   - Immigrants take jobs away from regular people.
   - Immigrants perform low-wage, unpopular tasks.

These possible statements (related to a particular topic, object or question or institution etc.) are obtained from a group of selected writers, other experts and layman. These items should cover the entire continuum of attitude toward the object in question, from extreme unfavourable on the one hand to extreme favourable on the other. Each item is placed on a slip of paper.

2. **Editing of statements:** Then these statement should be edited.
3. **Judging of statements:** Then these statements are classified by a large number of judges on an eleven-point scale. The judges rate the statements on how effective they would be at uncovering attitudes. This is done by placing each statement in one of eleven-point scale, presumably forming a continuum, according to degree of favourable and unfavourableness of each statement. It is necessary to see whether the statements in the scale are in a definite order or not. The order of statements should be such that they proceed from maximum to minimum acceptance in approximately equal steps. The equal intervals are differences in attitude that appear equal to the judges. The lowest score (1)

should indicate an extremely unfavorable attitude and the highest score (11) should indicate an extremely favorable attitude. They have to place the natural statement of the middle of the scale. Statements that are judged to be ambiguous or irrelevant to the continuum are eliminated.

1	2	3	4	5	6	7	8	9	10	11

Negative Positive

4. **Finding out Scale Value:** The next step is to determine the scale value of the statements. For statements retained, the scale value is the median position assigned by the judges. The scale value for each statement is found out graphically by an ogive or cumulative percentage curve of the number of judges placing the statements in different classes in the eleven point scale. The median of the judges' locations for a statement is its scale value. Thus, the p50 or 50% level of the curve shows the scale value for the statement. To illustrate the procedure for finding out the scale value for each statement, cumulative percentage of the number of judges placing a particular statement at different point of the eleven-point scale is shown in the following table (Number of judges being 30)

Scale points	**F (No. of judges)**	**Cumf**	**Cumf %**
1	5	5	16.7
2	11	16	53.3
3	9	25	83.3
4	4	29	96.7
5	1	30	100
6	0	--	--
7	0	--	--
8	0	--	--
9	0	--	--
10	0	--	--
11	0	--	--

From this table an ogive is prepared. 50% level or p50 of the graph shows the scale value of the statement in question. (See the figure 11.1)

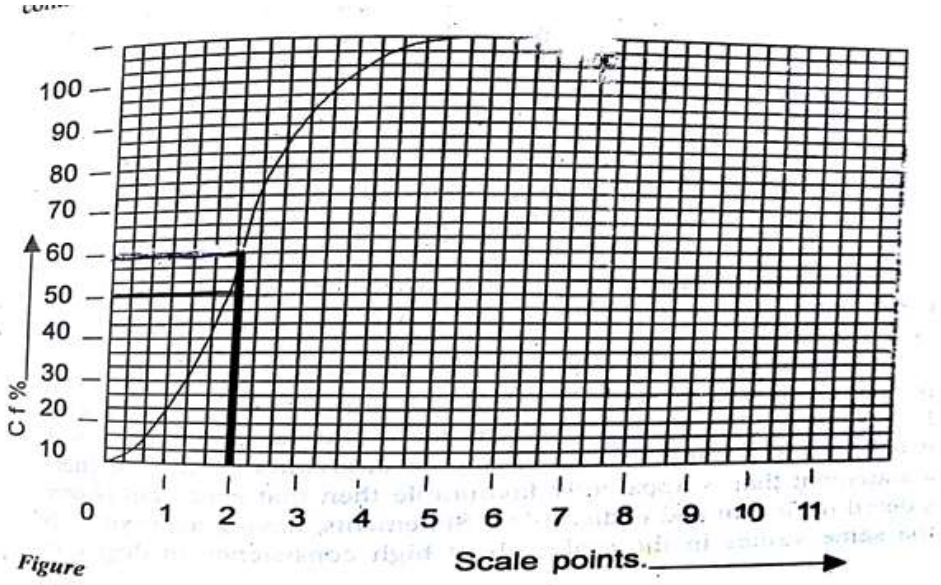


Figure 11.1: Ogive presenting scale value

5. Before inclusion in the final scale, each statement is analyzed for consistency with the general attitude found by the total scale. The statements chosen are then placed in a preliminary check list. This list is given to subjects as means of checking the relevance of items. For example- on a scale to determine attitude towards churches, if it is found that many persons having an unfavourable attitude check a statement that is apparently favourable then that statement is considered irrelevant and is discarded. Statements, having approximately the same values in the scale show high consistency in degree of endorsement. The final scale consists of items which have passed, the tests for ambiguity and relevancy. Final items are selected to represent the entire range of attitudes.

For example following statements are included in the attitude scale toward the church with their scale values (from Freeman)

- I think the church is a parasite on society (11)
- I believe what the church teaches but with mental

reservations (4.5)

- I think the teaching of the church is altogether too superficial to have much social significance (8.3)
- I believe in religion but I seldom go to church (5.4)
- I believe the church is the greatest institution in America today (1.7)

To give an idea of the spread of the distribution about the scale value(s) the inter quartile range (IQR) is also calculated. This may be regarded as a measure of ambiguity. Statements that are judged to be ambiguous or irrelevant to the continuum are eliminated.

In a Thurstone attitude scale, the respondent checks those statements with which he agrees, his score being the median of the scale values of the statement he has marked. The attitude score of an individual obtained by this method has an absolute interpretation in terms of the psychological continuum of scale value of the statements making up the scale. If this score falls in the middle range of the psychological continuum, the attitude of the individual is described as ?neutral. If it falls towards the favourable end of the continuum, it is described as 'favourable' and if it falls towards the unfavourable ends, it is described as 'unfavourable'. This method permit direct comparison of the scores of any attitudes so measured. The validity of such comparison, however, has been questionable because the defined 'neutral points' of different attitude are not necessarily the same. The interval of the scale is not equal but only appear equal.

11.8.1 (b) Likert Type scale

This method generally associated with the work of Rensis Likert, a sociologist at the University of Michigan. Likert developed an attitude scaling technique simpler than the Thurstone method. His original report entitled "A Technique for the Measurement of Attitudes" was published in the Archives of Psychology in 1932.His goal was to

develop a means of measuring attitudes in a 'scientific' way. Specifically, he sought a method that would produce attitude measures that could reasonably be interpreted as measurements on a proper metric scale.

A Likert scale taps agreement or disagreement with a series of belief statements. It is an application of item analysis procedures borrowed from test-construction techniques. First of all as in the case of method of equal appearing intervals, a large number of statements relating to the attitude object in question are collected. These items are to be carefully edited to eliminate ambiguous irrelevant, and otherwise faulty items. The items are then drawn up in the form of a questionnaire or attitude test, each item being given multiple response categories of "strongly agree, agree, undecided, disagree, strongly disagree." The statements should be so constructed that for half of them an "agree" response represents a favourable attitude toward the attitude object in question, and for the other half a "disagree" response represents a favourable attitude. Then this is administered to a reasonably large group of subjects and asked to indicate their own attitudes by checking the response to each item which most nearly expresses their feeling on that item. The subject indicates his reaction to each statement usually on a five point scale. To score the scale the item score is obtained by assigning arbitrary weights of 5, 4, 3, 2 and 1 for Strongly Agree (SA), Agree (A), Undecided (U), Disagree (D) and Strongly Disagree (SD) for the statements favouring a point of view. On the other hand, the scoring weights of 1, 2, 3, 4, and 5 are used for the respective responses for statements opposing this point of view. For example, "strongly agree' with a favourable statement would receive a score of 5 (five), and similarly "strongly disagree" with an unfavourable statement would also receive a score of 5.

The items are then analyzed for their discriminatory power with respect to measurement of the attitude in question, by item-analysis procedures. Perhaps, the simplest index is to take the top

and bottom of subjects on the distribution of total scores, and calculate the mean of the responses to each item for each of these groups separately. Those items are the most discriminating which show the greatest discrepancy in mean response between high and low extreme groups. The final attitude scale is then constructed by choosing from the total list which show the greatest discrimination.

The sum of the weights assigned to the responses to the statements represent the individual's total score which represents the person's attitude towards the subject. Thus this scale is also known as **'Method of Summated Ratings'**. Generally, highest mark is considered as the attitude preferred and lower aggregate will be considered a disapproval of the attitude concerned (in case of positive statement).Sometimes this total score is interpreted in terms of empirically established norms. This method measures attitude only in the sense that individuals are given a rank order according to attitude intensity.

The main advantage of Likert's method is that it does not require the use of a group of judges to arrange statements into different categories. Items are selected solely on the basis of the responses of subject to whom they are administered in the course of developing the test.

Comparison of Thurstone and Likert techniques

Several investigators have tried to compare the merits of Thurstone and Likert techniques. There is little difference between these two types of scale. The factors which make for invalid self-report are equally present in both tests. But construction of a Likert type scale requires less time than Thurstone procedure. The Likert method permits response sets to influence the score, which might lower validity. Whereas in Thurstone scale no response sets affect the score. This scale is easy to response. In Thurstone scale, the attitude score obtained by a single subject has an absolute

interpretation. Thus the interpretation of an attitudes score on this scale can be made independently of the distribution of scores for a particular group of subjects. But interpretation of attitude on the basis of a single score is difficult in case of Likert scale.

11.8.1 (c) Semantic Differential Scale

The semantic differential scale uses bipolar adjectives (i.e. with opposite meanings), to measure the meaning associated with attitude objects. Thus, to prepare a semantic differential scale, we must first think of a number of words with opposite meanings that are applicable to describe the subject of the test. In this scale an individual gives quantitative rating to the subject of the attitude scale on a number of bipolar adjectives such as good-bad, friendly-unfriendly, positive-negative etc. The respondent indicates the point on the continuum between the extremes which represents her or his attitude. Respondents tick to indicate how they feel about what is being measured. A single attitude may include different meanings or qualities of evaluation. For example, a negative attitude about cigarette advertising might be made up of several beliefs or values. This can be tested in the following way:

A statement is made followed by a series of scales. E.g. Cigarette advertising is:

- Good 1 2 3 4 5 Bad
- Creative 1 2 3 4 5 Ugly
- Honest 1 2 3 4 5 Dishonest
- Healthy 1 2 3 4 5 Unhealthy

The semantic differential technique reveals information on three basic dimensions of attitudes: evaluation, potency (i.e. strength) and activity.

- **Evaluation** is concerned with whether a person thinks positively or negatively about the attitude topic (e.g. dirty - clean, and ugly

- beautiful).

- **Potency** is concerned with how powerful the topic is for the person (e.g. cruel - kind, and strong - weak).
- **Activity** is concerned with whether the topic is seen as active or passive (e.g. active - passive)

11.8.1 (d) Guttman scales

Scales constructed in accordance with the 'scale analysis' techniques devised by Louis Guttman and his co-workers is known as Guttman scales. A Guttman scale, however, attempts to determine whether an attitude is unidimensional. It is unidimensional if it produces a cumulative scale. In an cumulative scale, an individual who agrees with a given statement also agree with all related preceding statements i.e. if one agree with statement 3, also agree with statement 2 and 1. The Guttman scale focuses on items that vary in their degree of psychological difficulty. "Guttmann believes that a genuine scale, capable of legitimate measurement, exists when homogeneity is virtually complete".

11.8.1 (e) Master Scale Method of Remmers and Silence

Remmers and his collaborators have prepared a series of attitude scale similar to Thurstone method to a large extent. The special feature of this method is that it measure an attitude towards a large group of objects, person or institution. Thus, attitude toward different things may be measured with a single scale through this method. Too much generalization of fact has been attempted in this method. However, psychologists point out that this method may not be carried out so efficiently as it possible with specific attitude test method. This scale deals among others, with national and racial groups, vocations, teachers, social actions and school subjects.

Evaluation of Attitude scales

Attitude scales are used to measure the degree of positive

or negative feeling associated with any slogan, person, institution, religion, political party etc. Attitude scales are also used in public opinion surveys in order to make some important and crucial decisions. Educationists, for example, conduct opinion surveys to find out how people feel about educational issues.

An attitude scale is designed to provide a valid, or accurate, measure of an individual's attitude towards different thing or subjects. The validity of decisions is directly related to the truthfulness of the responses made by individuals. However, there are shortcomings in these self-report scales of attitudes which are direct method of attitude testing. However, the most common problem is that of social desirability. There is no guarantee that individuals are expressing their true attitude. Their responses to generally represent "socially acceptable" attitude and often motivated to give replies that make them appear "well adjusted", unprejudiced, open minded etc. Similarly, respondents who harbor a negative attitude towards a particular group may not wish be admit to the experimenter (or to themselves) that they have these feelings. Consequently, responses on attitude scales are not always 100% valid. Thus, whenever attitude scales are used effort must be made to reduce potential problems by giving appropriate directions to the test takers.

11.8.2 Rating scales

In this scale the experimenter gives the individual's attitude, a position on a scale extending from the highest to the lowest quality. In this method the individual is given a relative position on the scale, in comparison with other individuals. Thus, in this method attitudes are evaluated on the basis of judgement or decision of the experimenter. The experimenter employs various sources to collect data to give his decision, such as--

- Nonverbal behaviour toward a particular thing, such as, accepting or rejecting customs. But a person is not able to show his behaviour according to his attitude.

- Verbal statement is a good source for understanding attitude. However, it may be kept in mind that a person should express his attitude faithfully. Thus, verbal statements at many places throws light on our attitudes.
- Personal documents: Personal diary, letter, autobiography etc. give expression to our attitudes. But these records are not easily available for all
- Secondary expressive clues such as facial expression, voice also help in gaining knowledge about attitude. It is a common belief that "what a man say may be less revealing than how he says it."
- Clinical type interview: In this method the interviewer, the psychologist tries to know the attitude of a person through conversation.
- Projective technique: The dormant attitude lying in the unconscious come to light through this method.

From these sources the individual gets enough data concerning the attitude of an individual. In attitude testing rating scales are of two kinds - **relative and absolute.**

11.8.2 (a) Rank order Scales

In this scale, the experimenter gives the individual's attitude, a position on a scale extending from highest to lowest quality. In this method, the individual is given a relative position on the scale. In comparison with other individuals.

11.8.2 (b) Percentage of Population scales

In this scale, one or more individuals are given a position in the population. In this method a definite population is put to the test and then the opinion of one individual is examined. The examiner places the opinion of the individual on the scale, which indicates the percentage of the population concurring with his opinion.



CHECK YOUR PROGRESS

Q 3: What is an attitude Scale?

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Q 4: State the names of two commonly used attitude scale.

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Q 5: Write the name of the first attitude scale.

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Q 6: Why 'Thurstone scale' is known as Equal -appearing intervals?

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Q 7: Explain the scoring procedure of a Likert Type scale.

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Q 8: What are the uses of attitude scale?

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Q 9: Mention a limitations of attitude scales.

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11.8.3 Indirect Scales

To avoid the problem of social desirability associated with direct method of attitude testing various indirect measures of attitudes have been used. Some person tries to hide his attitude consciously or unconsciously. Hence, psychologist have favoured the indirect

methods for the measurement of attitude in which he cannot guess the tendencies being measured. Therefore, the subject answers the questions unhesitatingly. This method reveals the presence or absence of certain attitudes. It, however, does not reveal intensity of the attitude. Moreover, this method require more careful planning on the basis of experiments.

11.8.3 (a) Projective Techniques

Indirect methods typically involve the use of a projective test. They are based on the Freudian psychoanalytic notion that the person will "project" his or her views, opinions or attitudes into the ambiguous situation, thus revealing the attitudes the person holds. Thus, a projective test involves presenting a person with an ambiguous (i.e. unclear) or incomplete stimulus (e.g. picture or words). The stimulus requires interpretation from the person. The person's attitude is inferred from their interpretation of the ambiguous or incomplete stimulus. It is claimed that these tests provides genuine data, unbiased by people guessing intent of measurement. It is argued that the tests can be used to measure such factors as the affective, usually hidden, component of attitudes.

Evaluation of Indirect Methods

The advantages of indirect techniques of attitude measurement are that they are less likely to produce socially desirable responses, the person is unlikely to guess what is being measured and behavior should be natural and reliable.

However, indirect methods only provide general information and do not offer a precise measurement of attitude strength since it is qualitative rather than quantitative. The major criticism of indirect methods is their lack of objectivity. Such methods are unscientific and do not objectively measure attitudes in the same way as a Likert scale.

There is also the ethical problem of deception as often the

person does not know that their attitude is actually being studied when using indirect methods.

In addition to the above scales and tests , there some more techniques, such as, Error Choice Technique, Free Response, Technique, Paired Comparisons, Opinion Polling or Surveying, diaries, auto-biographic etc. used for testing attitude. In short, we have to mention that there are various methods of attitude testing. But only one method is not sufficient to give a reliable and clear picture of the attitude of an individual. Attitude is a complex affair which cannot be wholly measured by any single numerical index. Again people's attitudes are subjected to change. Thus, it becomes essential that the attitudes are tested after some reasonable intervals.



11.9: LET US SUM UP

Dear Learners, after going through this unit, it can be summarized as-

- Attitude testing helps us in getting information about work preference of the students.
- Attitudes are learned tendency to evaluate things, issues, people or events in a certain way.
- The attitude is the voluntary disposition of a person. These are significant for satisfaction and success in the educational and vocational fields. Thus, attitude testing is an important part of the comprehensive process of educational evaluation.
- The methods by which, generally, attitudes have been measured are-(1) Attitude scales (2) Rating scales (3) Indirect scales.
- There are many forms of attitude scale for testing attitude. These scales are differed in respect of the method of their construction and kind. The main among them are the followings - Thurstone's scale: and likert scale.

11.10 FURTHER READING

1) Aggarwal, J.C. (1993) : Educational Vocational Guidance and Counselling, Doaba House New Delhi
2) Anastasi Anne (1982): Psychological Testing 4th Edition, New York: Macmillan Publishing Co. Inc.
3) Anderson, Scarvia B. Samuel Ball, Murphy, R.T. and et.al (1976): Encyclopedia of Educational Evaluation, Jessey-Bass Publishers.
4) Asthana Bipin (2015): Measurement and Evaluation in in Psychology and Education, Binod Pustak Mandir, Agra.
5) Brown Frederick, G. (1976): Principles of Educational and Psychological Testing, Holt: Rineheart and Winston.
6) Freeman, F.S.(1965): Theory and Practice of Psychological Testing, Oxford and IBH.
7) Goswami Marami (2010): Measurement and Evaluation in Education and Psychology, Nilkamal Publishing House, Hyderabad.
8) Gronlund, Norman, E. (1968): Readings in Measurement and Evaluation, Education, and Psychology, The Macmillan Company.
9) Mehrens, William, A. and Lehmann, Irvin, J. (1978): Measurement and Evaluation in Education and Psychology, Holt, Rinehard and Winston.

11.11. ANSWERS TO CHECK YOUR PROGRESS

Ans to Q No 1: Attitude is a psychological tendency to respond consistently positively or negatively towards certain idea, object, person, or situation.

Ans to Q No 2: Attitudes are learned or acquire/ guide or motivator of behaviour / an expression of favour or disfavor / mental and neural state of readiness

Ans to Q No 3: Attitude scales are self-report inventories designed to measure the extent to which an individual has favourable or unfourable feelings towards some persons, objects, institutions or ideas.

Ans to Q No 4: Thurstone's scale and Likert scale

Ans to Q No 5: Thurstone's scale

Ans to Q No 6: It seeks to analyze people on a continuous scale having equal-appearing units. For this reason this technique is also known as the method of "Equal -appearing intervals."

Ans to Q No 7: To score the scale the item score is obtained by assigning arbitrary weights of 5, 4, 3, 2 and 1 for Strongly Agree (SA), Agree (A), Undecided (U), Disagree (D) and Strongly Disagree (SD) for the statements favouring a point of view. On the other hand, the scoring weights of 1, 2, 3, 4, and 5 are used for the respective responses for statements opposing this point of view.

Ans to Q No 8: Help to measure the degree of positive or negative feeling associated with different things, uses in public opinion surveys.

Ans to Q No 9: The most common problem is that of social desirability.

11.12. MODEL QUESTIONS

Short Questions (Answer within 150 words)

Q 1: What is attitude?

Q 2: How attitude is measured?

Q 3: What is attitude testing?

Q 4: Discuss the need of attitude testing.

Q 5: Write notes on.

(a) Thurstone's attitude scale (b) Likert's attitude scale

(c) Master attitude scale (d) indirect scales.

(e) Strong Vocational Interest Bank (SVIS)

(f) Kuder preference Record (KPR)

Long Questions. (Answer 300-500 words)

Q 1: What are attitudes? Show your acquaintance with a standard test of measuring attitude.

Q 2: Discuss different techniques of scaling attitude.

Q 3: Describe the construction procedure of Thurstone's attitude scale.

Q 4: Describe any one method of construction of attitude scale.

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