

NATIONAL INSTITUTE OF TECHNICAL TEACHERS TRAINING AND RESEARCH

TARAMANI, CHENNAI – 600 113

SWAYAM COURSE ON “STUDENT PSYCHOLOGY”

Week-3: PSYCHOLOGICAL TESTS AND INVENTORIES

INTRODUCTION

In this module on “Psychological Testing” we are going to learn about Psychological Tests and Inventories relevant to Student Psychology. The contents are as follows:

- Definition of Psychological Test
- Purpose Psychological Test
- Rational for using Psychological Tests
- Standardising a Psychological Test
- Classification of Psychological Tests
- Types of Psychological Tests

DEFINITIONS OF PSYCHOLOGICAL TEST

- A Psychological Test is a device designed to measure the characteristic trait of the individual including his mental potentialities
- A Psychological Test is a set of items designed to measure characteristics of human beings that pertain to Covert or Overt behaviour.
- It is a standardised instrument designed to measure objectively one or more aspects of total personality by means of samples of verbal or nonverbal responses or by means of other behaviours (Frank S. Freeman, 1962)

PURPOSE OF PSYCHOLOGICAL TESTS

- Helps in understanding the specific abilities present in a individual
- Can be used for career guidance & selection
- Helps teachers to design special activities for students
- It prevents mismatch between man and machine and thus reduces work alienation

RATIONAL FOR PSYCHOLOGICAL TESTS

Measures of student performance (testing) may have as many as five purposes:

- Student Placement

- Diagnosis of Difficulties
- Checking Student Progress
- Reports to Student and Superiors
- Evaluation of Instruction

STANDARDISATION

It is one of the characteristics of a good test. It is required for the administration of a test to a large sample of people with uniform conditions for the purpose of establishing the norms of the test. Standardisation of a test involves establishing Reliability and Validity

RELIABILITY

It means the test must consistently produce similar scores on different occasions

Reliability can be obtained in three ways

- Split half method of reliability
- Test - re-test method
- Odd-even method

VALIDITY

- It is the ability of a test to measure what it is supposed to measure. It refers to the accuracy of measurement
- There are several kinds of validity like face validity, content validity, criterion orientated validity, predictive validity, concurrent validity, construct validity, convergent and discriminate validity

SELECTION OF A TEST

Selection of a test involves careful consideration of who will be tested, the stimulus and response demands of the test and the content to be tested, the first and foremost being who will be tested.

CLASSIFICATION OF TESTS

Psychological tests can be classified on the basis of content, objective, medium, traits to be measured and the purpose for which they are developed.

INDIVIDUAL AND GROUP TESTS

- These tests can be administered to an individual or to a group
- Individual test - Eg: Stanford Binet Test
- Group test – Eg: Raven's Progressive Matrices test of intelligence

PAPER PENCIL TEST

- A test booklet which contains items to be answered with the help of separate answer sheet
- Eg: Differential Aptitude Test Battery

LANGUAGE AND NON-LANGUAGE TESTS

- Language is used in language tests.
- Non language tests are specially designed for subjects who are illiterate, unfamiliar with native language
- Eg: Prayog Mehta's Test of General Intelligence
- Non language test – Army Beta Tests

VERBAL AND NON VERBAL TESTS

- Verbal tests are reading and writing tests
- Non verbal tests are used for oral instructions/communications

CRITERION REFERENCED AND NORM REFERENCED TEST

- These tests are designed to rank students in order of achievement from high to low, so that decisions based on relative achievement could be made with great confidence.
- These are teacher made tests

INFORMAL TESTS AND STANDARDISED TESTS

- Informal tests are constructed by classroom teachers
- Standardised tests are designed by the psychologists

SPEED AND POWER TESTS

- A speed test is one in which individual differences can be found out according to the speed of performance.
- Eg; Clerical speed and accuracy test in DAT battery

- A power test has a time limit. It can be used to measure the level of performance

CULTURE-FAIR TESTS

- These are language free tests used to eliminate skills and feelings that vary from one culture to another. Eg: Draw a person test

TESTS MEASURING TRAITS

Tests designed to measure traits on different areas like intelligence, aptitudes, interests, attitudes, personality, etc.

PROJECTIVE TESTS

- These tests are developed out of psychoanalytic approaches to personality
- Eg: Rorschach Inkblot test, TAT

SPECIAL TESTS

- Tests constructed for specific purposes
- These tests can be used for a comprehensive assessment of mentally retarded persons

TYPES OF TESTS

APTITUDE

- APTITUDE is the potential capacity of the individual to acquire some specific knowledge or to perform
- It's a set of characteristics denoting an individual's ability which, if properly nourished will fit him in a profession
- Implies that if proper training is given in that area, he/she will perform successfully

APTITUDE TESTS

- These tests are designed to measure the degree of presence of characteristics required to perform specific tasks. These tests are classified into two categories
 - Multiple Aptitude Batteries
 - Special Aptitude Tests

INTELLIGENCE

It is the Ability required for understanding and solving problems, performing different kind of simple and complex tasks and even adapting one-self in a social situation. It is the global capacity of the individual to act purposefully, to think rationally and to deal effectively with the environment

INTELLIGENCE TESTS

- Ravens' Standard Progressive Matrices
- Wechsler Adult Performance Intelligence Test
- Group Test of General Mental Ability
- Bhatia's Battery of Performance Tests of Intelligence
- Catell's Culture Fair Performance Intelligence Test

USE OF INTELLIGENCE TESTS

- Helps in grouping students according to different mental abilities
- It helps in diagnosing the difficulties of the students
- It can be widely used in career Guidance

INTEREST

- A tendency or behaviour oriented towards certain objects, activities or experience, which varies in intensity (and generality) from individual to individual.
- It is generally defined as "Feeling" towards an activity.
- Knowledge of individual's interest provides basis for educational and career Guidance.

INTEREST INVENTORIES

- Checklists (Liking & Disliking)
- Thurstone Interest Schedule (Marking the preference in 10 pairs of occupations)
- Strong Campbell Interest Inventory (325 items to be filled with "Like", "Indifferent" or "Dislike")

PERSONALITY

It is the Non Intellectual aspect of human behavior. It is also defined as relatively stable and distinctive patterns of behavior that characterize an Individual and his/her reactions to the environment

PERSONALITY APPRAISAL STRATEGIES

Appraisal of personality is a very broad field in psychological testing. Numerous tests, inventories, rating scales, checklists are available for appraisal of personality.

Personality tests are those devices through which it is possible to measure empirically the personality structure of the individual, including characteristic traits. These help to draw quantitative conclusions on the relative importance of the particular personality feature in the individual. The various strategies are:

- Personality Inventories
- Rating Scale
- Checklist
- Projective Tests
- Interview

In the proceeding paragraphs several standardized tests and inventories, which are widely used in India are presented.

KUNDU INTROVERSION EXTROVERSION INVENTORY (KIEI)

Kundu Introversion Extroversion Inventory (KIEI) is used to obtain a reliable measure of introversion-extroversion dimension of behaviour. It is used to assess the communication aspect/style of Personality. The inventory can be used with adolescents and adults with a minimum of high school qualification.

The inventory is self-administering in nature. No separate instructions are necessary. The KIEI can be administered on group also. There is no time limit for the test. Scoring and interpretation is done as per the instructions given in the test manual.

THEMATIC APPERCEPTION TEST

Thematic Apperception Test was originally introduced by Morgan and Murray in 1935 in Harvard Psychological Clinic. The Indian adaptation of the test was later made available through the efforts of Indian Psychologists. The test is used to reveal the psychodynamics of personality. This test is used to study the aspects of personality like conflicts, interpersonal relationship and level of aspiration etc. The test result also reveals the psychodynamics of interpersonal relationship. The test can be administered on all, irrespective of age, educational level, sex, social status etc. The original TAT devised by **Murray** consisted of 32 cards in which one card was blank. The situations in the cards relate to the pleasant and unpleasant experiences, stresses and conflicts, interpersonal relationships, frustrations, attitude to self and others.

One card at a time is shown to the subject. He is asked to observe the card and prepare a story describing what has led to the event shown in the picture, what is presently happening, what the characters in the figure are feeling and thinking and what would be the outcome of the story.

After the story of the first card is completed by the subject, the next card is shown and he is asked to proceed as before. The scoring and interpretation of the stories are done following the guidelines given in the manual.

RORSCHACH INK BLOT TEST

The Rorschach Ink Blot Test is used to find out the personality structure and emotional functioning of the individual. The test was first devised and used by Hermann Rorschach, a Swiss Psychiatrist in 1911. The test can be administered on adolescents and adults. The test consists of ten symmetrical ink blot pictures, each with nonspecific figures. Every figure is to fulfill certain general and specific requirements. Out of these ten figures, (one each in single card) five are coloured. All these cards are arranged in a particular order and numbered.

The subject is given one card at a time. The subject generally holds the card for sometime, turns it about as much as he likes and gives his response. An attempt is made to get at least one answer for every card. Suggestions of any form are avoided. Answers are noted down as long as they are given by the subject. The interpretation of the answers reveals subjects' general personality structure, like the way he deals with the inner drives, his introversive and extroversive tendencies, unconscious intentions and so on.
