

Progressive Education Society's
**MODERN COLLEGE OF
ARTS, SCIENCE & COMMERCE
SHIVAJINAGAR, PUNE - 411 005.**

(*Star College Award, DBT, *CPE Status, UGC, *A' Grade, NAAC, *Best College Award, UoP.)

Department of Psychology

Experiment / Test No. : 3

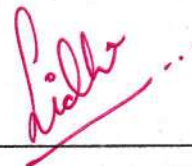
Date : 19/10/2018

Title of the Experiment / Test : DBDA

Subject's Name : Hemangi Thakur.

Student's Name : Madhura Vivek Pawar

Class : MA Part I. Roll No. : 1805120



Signature of the Teacher

INTRODUCTION TO APTITUDE

Defination of Aptitude :-

- Aptitude refers to those qualities characterizing a person's way of behaviour which serve to indicate how well he can learn to meet and solve a certain specified kind of problem. (Bingham, 1937).
- Aptitude is a condition, a quality or set of qualities in an individual which is an indicative of the probable extent to which he will be able to acquire under suitable training, some knowledge, skill or composite of knowledge, understanding and skill, such as an ability to contribute to art or music, mechanical ability, mathematical ability or ability to read and speak a foreign language (Taxler, 1957)
- An aptitude is a combination of characteristics indicative of an individual's capacity to acquire (with training) some specific knowledge, skill or set of organised responses, such as the ability to speak a language, to become a musician, to do mechanical work. (Freeman, 1971).

Difference Between Aptitude And Intelligence

The existing intelligence tests gauge the general mental ability of an individual while aptitude tests as we seen, are concerned with specific abilities.

Therefore, whereas the knowledge of intelligence of an individual we can predict his success in a number of situation involving mental function or activity, the knowledge of aptitudes, on other hand, acquaints us with the specific abilities and capacities of an individual to succeed in a particular field of activity. Therefore in predicting his achievement

in some specific job, training we need to know more about his aptitudes rather than his intelligence or general ability.

- Aptitude and Interest :

In order to succeed in a given activity, a person may have both aptitudes for activity and interest in it. This does not mean that interests and aptitudes are one and the same thing. A person may be interested in a particular activity, job or training but may not have the aptitude for it. In such cases the interest shown in a particular occupation or course of study is often not the result of personal aptitude but of some other outside influence or reason such as the wishes of parents, the probability of getting a particular appointment or job, stipend or other financial help or prestige associated with work. Similarly, person having a long and dextrous fingers who makes a good showing on a mechanical aptitude test must have little or no interest in becoming a watch-maker.

- Difference between competence, capacity, capability, Capacity and aptitude.

- Competence :- Is fitness either for a particular kind of task or fitness in general.

- Capacity :- Is a loose synonym for ability or even for aptitude, often with implications of innateness.

- Capability :- Is the maximum effectiveness of a person can attain with optimum training.

- Aptitude :- (which formerly carried implication of

innateness.) has now been specialised in technical writing to refer to the fact that the individual can be brought by a specified amount of training to a specified level of ability, either general or special, but usually the latter.

List of Different Aptitude Test.:

- 1) Mechanical Aptitude - Mechanical Aptitude is ideal for the reflection of technical and trade personnel. This test measures a candidate's understanding of principles of mechanism, spatial ability and cause and effect relationship, spatial ability and It uses pictures, simple sentences to ask questions. Mechanical aptitudes helps people learn about use of tools, machines and equipments. Eg. → Mechanical Aptitude Test.
- 2) Musical Aptitude - It can only be measured with a valid music aptitude test. Music teacher judgements about students' 'musical talent' are often based significantly on musical achievement, not in potential to achieve. A musical aptitude test can reveal musical potential that might otherwise remain to those students and their teachers. Students and their teachers. Students of average aptitude to achieve high level as a result of rich musical background and dedicated effort only a valid musical test can distinguish between actual and potential aptitudes.
- 3) Clerical Aptitude - Clerical aptitude tests are designed to identify candidates who can work

quickly and accurately in administrative roles because mistakes in accounting, billing or shipping information can be every expensive, organisations are increasingly using this type of test when recruiting for position such as clerical jobs, positions requiring concentrated work with client details. Eg. → Minnesota Clerical Test.

4) Scientific Engineering Aptitude Test - The accurate predictions of success is important in many ways like areas of human activity. The authors present new data on the predicting value of engineering test.

5) Medical and Teaching Aptitude Test - The purpose of this test was to develop and evaluated a program to teach medical students how to order diagnostic tests in a cost-effective manner. Context analysis of answers to open ended questions and the pre-test and post-tests were used to measure differences found in students knowledge attitudes stimulated test ordering behaviour.

6) Artistic Aptitude Test - It is concerned with the measurement of artistic ability. Eg. - McAdamy Art test, Grover Design Judgement Test.

7) Motor Dexterity Test - This test measures the co-ordination of hands palm and leg movement in performing test. Eg. - Crawford small parts Dexterity.

- 8) Career Test :- Aptitude tests are not limited to scholastic abilities and skills but also there are career aptitude test which were developed to help guide individuals in the persons of career design making.
Eg. → Differential Aptitude Test (DAT)

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DAVID BATTERY'S OF DIFFERENTIAL ABILITIES (DBDA)

PURPOSE OF THE TEST :- To explore the subject's differential abilities with the help of Indian Adaption of David Battery of Differential Abilitie (DBDA) by Sanjay Vohra.

About The Present Test :-

- **Conventional Properties.**

David's Battery of Differential Abilities (DBDA) is developed by Sanjay Vohra (1994, 2009). The test measures the respondents verbal, numerical, closure, spatial, mechanical, clerical, reasoning and psychomotor abilities. Each subtest has time limit. The dimensions are stated as follows :-

Verbal Ability :-

Verbal ability refers to comprehension of words and ideas, a person's ability to understand written language. This particular subtest is divided into.

VA Part I :-

It involves word meaning exercise to access the subject's knowledge of English words and his ability to form abstract and generalized relationship among words.

VA Part II

It involves the ability to require proverbs and understand their memory, an ability assumed to be essential the same as that comprehension of

language and usage of words.

Numerical Ability :

Numerical ability refers to facility of manipulation of numbers quickly and accurately involving addition, subtraction, quickly multiplication, division, squaring, dealing with fractions etc. The problem is the NA subtest are not difficult but they have to be done in very limited time.

Spatial Ability :

Spatial ability is concerned with perceiving spatial pattern accurately and following the figures when their position in space is altered.

This is assessed by items in which the subject must be able to determine quickly whether two dimensional figure have been merely turned around (related) or they are turned over and related.

Closure Ability :

Closure ability is primarily perceptual ability measured in DBDA. It refers to the ability to see quickly a whole stimulus when parts are missing, or to complete which the Gestalt. CA is a speed test assessed by items in which the examinee must look at a word with parts of the letter missing, decide what the word is and then find which one of the five jumbled options spell that word when unjumbled.

Clerical Ability :

Clerical Ability is a perceptual activity, primarily

Concerned with making rapid evaluations of features of visual stimuli. In CL, the perceptual speed and accuracy is assessed measured by items in which the examinee must rapidly access the sameness as of paired groups of letters and numbers.

CL is important to success in many tasks involving record keeping, taking initiative, filing, dispatching, coding and other similar jobs. It is relatively less important for most educational purpose, although students who score very low in this subtest may find it difficult to meet classroom standards of speed and precisions.

Reasoning Ability:

Reasoning ability refers to the ability to apply the process of induction ability as to person from some specific information of a general principle. RA is measured by items requirely the subject to impact set of four letter and discover how four of the five sets presented embody a general principle which the fifth does not.

RA is important for success in many areas, particularly those that stress logic such as in mathematics, computer programming, engineering, sciences and scientific technology.

Mechanical Ability:

Mechanical ability refers to have basic understanding of mechanical principles, simple machines, tools, electrical and automobile parts. MA score is dependent to a great extend on aquired knowledge

and skills in such areas. It has been found useful in the prediction and success in training and occupational performance in technical vocational areas. The purpose of who stands high in this ability finds it easy to learn the principles of operations and repair of computer services.

Psychomotor Ability:

This refers to precise movements requiring head-eye co-ordination under highly speeded conditions. PM ability can be manual. This test requires the subject to draw finely controlled pencil lines as quickly as possible in specially constructed figure.

Scoring:-

The scoring procedure in DBDA is very objective and simple. Separate stencil keys are available for each test to be placed on the answer sheet. Complete instructions for obtaining a raw score are given on these stencils themselves. Before the scoring keys are used some general guidelines are to be observed to maintain the validity of the test:

- 1) See that only one response is marked for each item and that is marked clearly.
- 2) Reject those answers sheet that show obvious patterns such as all answers in one column.
- 3) See that maximum no. of items have been answered within given time limit.

Psychometric Properties

● **Reliability** :- A very exhaustive and extensive data regarding the reliability of the DBDA-R has been

collected and some more is still in process. The preliminary estimates as a measure of internal consistency. Since all the tests of DBDA are speed tests the KR-20 coefficients are not really exhaustive.

- **Validity:** - This is an indication of the practical utility of a group of tests that show well their test scores. Correlate with other well established tests or relevant criteria. There are two types of concrete validity measures available for reference by user. There are:
 - 1) Correlation with academic achievement.
 - 2) Correlation with IQ scores.

Academic Achievement: - The relationship between DBDA test scores and academic achievement has been studied during the pilot study conducted for this test on high and senior school students.

Correlation with general intelligence tests: - The two main studies have been conducted with established intelligence tests to determine the relationship between DBDA-R and these tests.

- **Standardization:** - The standardization of DBDA-R is based on more than 2500 protocols tested at more than 12 locations, throughout the country. Various research scholars, assistants and psychologists participation in this standardization.

Contemporary Tests:

- 1) **Differential Aptitude Test:** - DAT are a series of tests designed to measure one's abilities in different fields.

such as verbal reasoning, numerical reasoning, mechanical reasoning and space relations. All the tests are time ranging from 12 to 25 mins and each section - contains 80 to 45 items.

2) General Aptitude Test Battery (GABT) :- It's measuring a wide range of aptitude. It measures a different general aptitude using 12 timed tests.

3) Primary Mental Ability :- Psychologist Louis Thurston offered a theory of intelligence inted of viewing intelligence as a single, general ability. his theory focused on different mental abilities. They are word inf fluency, verbal comprehension, number facility, spatial visualise, memory.

MATERIAL :-

1) Two test booklets.

2) Two answer sheets.

3) Scoring key

4) manual

5) stationery

6) Wooden screen.

PROCEDURE :- The subject was called in the cubide, was seated, Rapport was established and detailed case-history was taken and instruction wer read as per manual.

PRECAUTIONS :- The subject should not exposed to the test-material before the test begins. subject should not write anything on the question booklet. Detailed case history should be taken by experimenter.