



A Study and Analysis of Research Design and Future Implications

NANDAN DAS
Research Scholar,
Department of Education,
Meerut College, Meerut, UP.

DR. SANJAY KUMAR
Research Supervisor,
Department of Education,
Meerut College, Meerut, UP.

1. Introduction

One important step of any research is to prepare a research design, which is nearly a mapping of the study. Research design is a choice of researcher about the components of design. A design of research does not consist of an ordered step by step procedure, rather it is planning stage of research. Which is usually made logically visualizing its practicability. The selection of research components is done, keeping in view the objectives of the study. A research design includes the following components.

1. Methodology
2. Population & Sample Selection
3. Tools Employed
4. Data Collection & Administration of Tools
5. Statistical Technique

1. Methodology

In this research the researcher will try to analysis the study of emotional intelligence and personality traits between gifted and normal children at secondary level.

Keeping in view the objectives of the study the descriptive method was used which involves the recent problems and are conducted on a sample population. To seek the difference between gifted children and normal children, the Mean Standard deviation and 't' ratio was calculated. The 't' technique is the best suited to seek answer of the question, how two differ from each other.

2. Population and Sample Selection

A population refers to a collection of specified groups of human beings or of non-human beings or of non-human entities such as educational institutions, time, units etc. some statistician call it "universe". Nearly all researches experimental and non-experimental in the behavioural sciences, draw some inference from a well specified and identifiable group on the basis of some selected measures. The well specified and identifiable group is known as population. The population of the study will include secondary school recognized by govt. of Uttar Pradesh in Ghaziabad.

Sample is an undisciplinable technique of behavioural research and the research work cannot be undertaken without using it. The study of total population is not possible and it also impractical. The practical limitations, cost, time and other factors which are operative in the situation. The concept of sampling has been introduced with a view of making the research findings economical and accurate. Thus, sampling is the process by which a relatively small number of individuals objects or events is selected and analysed in order to find out something about the entire population.

There are many techniques of sample selection by the main problem while doing. So is that how the elements of the sample should be selected so that the sample selected is adequate and representative keeping in view of this problem researcher used Random sampling technique, while selecting the sample for the present day.

The sample of 100 student (70 Normal Children and 30 gifted) who were studying in 9th class is taken to study their emotional intelligence and personality trait. The sample was selected randomly from different schools of having 9-12 classes of Ghaziabad district. After selecting the school's researcher made the report with students and administer the tools General Mental Ability test of Jallota to search the gifted student. The students having 140 IQ, was taken as gifted the student with IQ 100-120 were chosen as normal children. After selecting two groups researcher administered the emotional Intelligent Test- Upinder Dhar, Sanjyot Pethe, Anukool Hyde 16PF - R.B. Cattle. The detail of the sample is given in following table: 1

Table: 1 Sample table for Normal Children

Name of the Group	R	U	Total
M	22	13	35
F	17	18	35
Total	39	31	70

Table: 2 Sample Table for Gifted Children

Name of the Group	R	U	Total
M	7	8	15
F	7	8	35
Total	14	16	30

3.Tools Employed

For the purpose of the present study the valid and reliable tools were needed to measure the intelligence, emotional intelligence and personality traits of the normal children and gifted children. The selection of the tools was based on the following criteria.

- Validity and reliability of the tools.
- Time required of the administration of tool.
- A variability of the test's tools.

Keeping in View the above criteria, the intelligence emotional intelligence and personality trait test for secondary level students. To measure intelligence for the secondary level students test constructed and standardized by S.S. Jallota and Emotional Intelligence Test for student constructed and standardized by Ankool Heyde, Sajyot Pethe and Upinder Dhar and Personality Trait Test for students constructed and standardized by R.B. Cattle is selected and used to measure intelligence, emotional intellectual and personality trait of the sample secondary level students. This test is a valid, reliable and suitable in Indian conditions. In the Present study according the objectives following tools are under.

- Intelligence test - General Mental ability test by - Dr. S.S. Jallota.
- Emotional Intelligence test by Ankool Heyde, Sanjyot Pethe and Upinder Dhar.
- 16 PF Personality factors test - By R.B. Cattle.
- Description of Intelligence test.

In each school the "General Mental Ability test" was administrated first. The instruction was given according to the manual. The investigator described the method answering 25 minutes were given to compute this 100-question set.

3.1 Description of Emotional Intelligence Test

Emotional intelligence motivates employees to pursue their unique potential and purpose and activates innermost potential values and aspirations.

“Emotional Intelligence involves the ability to perceive accurately, appraise and express emotions; the

ability to access are some rate feelings when they facilitate thoughts the ability to understand emotions and emotional knowledge and intellectual growth.

3.2 Development of the Scale

After consulting relevant literature, 106 items were developed. Each item was transferred on a card, A panel of 50 judges with postgraduate degree and more than 10 years of experience in their relevant fields was prepared definition of emotional intelligence was also written in a card along with necessary instructions for the selections of the items on the cards. The cards were placed before each judge who was contracted individually. The choice for categorization of each card was noted and the frequency of choice was calculated. The items which were chosen 75% or more items were spotted out. The 34 items thus chosen were administered on 200 executives. The final form of the scale consultation 34 items.

3.3 Reliability of the scale

The reliability of the scale was determined by calculating reliability coefficient on sample of 200 subjects. The split half reliability coefficient was found to be 0.88.

3.4 Validity

Besides face validity, as all items were related to the variable under focus the scale has high content validity. It is evident from the assessment of judges/experts that items of the scale are directly related to the concept of the emotional intelligence. In order to find out the validity from the coefficient of reliability (Garrett 1981) the reliability index was calculated, which indicated high validity on account of being 0.93.

3.4 Factors of Emotional Intelligence

The scale was administered on 200 executives and the scores obtained were subjected to factor analysis and ten factors were identified.

A. Self-Awareness: Self-awareness is being aware of oneself and is measured by items 6, 12, 18, 29. This factor is the strongest and explain 26.8% variance and has a total factor load of 2.77. The correlation of this factor with total score is 0.66

B. Empathy is feeling and understanding the other person and is measured by items 9, 10, 15, 20 and 25. This factor explains 7.3 percent variance with a total load of 3.11. The correlation of the factor with total score is 0.70.

C. Self-motivation is being motivated and is measured by 2, 4, 7, 8, 31 and 34. This factor accounts for 6.3 percent variance and a total factor load is 3.28 its correlation with total score is 0.77.

D. Emotional Stability is measured by items 14, 19, 26 and 28. This factor explains 6.0 percent variance with a total factor load of 2.51. The correlation of this factor with total scores is 0.75.

E. Managing relations is measured by 1, 5, 11 and 17. This factor explain 5.3 percent variance with a total factor load of 2.38. The correlation of this factor with total score is 0.67.

F. Integrity is measured by items 16, 27 and 32. This factor explains 4.6 percent variance with a total factor load of 1.88.

G. Self-development is measured by items 30 and 33. This factor explain 4.1 percent variance with a total load of 1.37.

H. Self-Orientation is measured by items 21, 22. These factors explain 4.1% variance with a total factor load of 1.29.

I. Commitment is measured by the items 23 and 24. This factor accounts for 3.6% variance with a total factor load of 1.39.

J. Altruistic behavior is measured by the items 3 and 13. It explains 3.0% variance with a total factor load of 1.3.

3.5 Use of Scale

The scale can be used for research and survey purpose. It can also be used for individual assessment. It is self-administering and does not require the service of highly trained tester. It is eminently suitable

for group as well as individual testing.

3.6 Description of Personality Factors Test

The number of traits has been a very controversial topic. In England Allport and Obdert mentioned 17, 953 traits names. A large number of these names were' synonyms R.B. Cattell, in 1945, mentioned 131 common traits. These were again arranged into 16 factors of personality sphere.

3.7 Arrangement of Questioning

Ten to Thirteen items as provided for each scale in form A and form B. In form C and Form D. There are eight items for the factor 'B' scale. The situation is arranged in a roughly cyclic order determined by a plan to give maximum convenience in scoring by stencil and to ensure variety and interest for the examinee.

3.8 Validities

The items in their final forms are the survivors from several thousand originally tried and constitute only those which continue to have significant validity against the factors after ten successive factor analysis (Cattell 1973) on different samples. These analyses have both verified the existence and natural structure to the sixteen factors and cross validated the test items in their correlation with the factors in different adult population samples.

4. Data Collection and Administration of Tools

The most crucial step in empirical research is the best administration of tools. Irrespective of reliability and validity of tools of research. It is the proper administration which makes achievement of current results possible. The researcher in the present study found direct personal contact as the most suitable method to administer the different tools under a systematic arrangement.

Researcher personally visited the schools selected for the purpose of the study. The principal and teachers were requested to provide help in the work. Testing environment was created by getting by maintained calm and quiet atmosphere with the assistance of teachers. There after necessary instructions about the test were given.

The sample selected for the study was divided on to two groups on the basis of score obtained by the sample on intelligent test. The investigator administered the emotional intelligence and personality trait test after taking the permission from head of the two institutions i.e. Maharshi Dyanand Vidhyapeeth Inter College, Govindpuram and Dr. Bheem Rao Ambedkar Inter College, Inder Gari, Ghaziabad Before administrating the test the subjects were instructed to sit comfortably and necessary. Instructions were given orally before the test sheets were distributed. The subjects were assured that their responses will be kept confidential and used for research purpose only. The filled in response sheets were collected by the investigator in the last phase of administration of the test. The collected response sheets were scored as per instructions given in the manual for scoring. Composite score for every student was found by adding scores of all correct answers.

5. Statistical Techniques

After scoring the different test/scales the researcher organized the data according to the objectives and hypothesis as formulated in the first chapter for accuracy and completeness, whole data have been checked before it is tabulated. The various formulae to used were as follow:

(1) Mean: -

The most stable and reliable measure among the measures of variables- The mean is defined as the sum of the values in a series divided by a number of scores or values (N). In the words of Simpson and Kafka. This statistical technique is quite suitable for the study. Because mean is the balancing point of a numerical series and the sum of positive and negative deviations from the mean is always zero.

Formula

$$M = \frac{\sum fx}{N}$$

where M=Mean

$\sum fx$ =Sum of the total number

M=Total number of the individual

(2)Standard Deviation:

The researcher needs most reliable and stable measure of variability. So, the researcher took this technique for the study. Standard deviation helped the researcher to find out the position of some score in a series.

Formula—

$$SD = \sqrt{\frac{(\sum d^2)}{N} - \left(\frac{\sum d}{N}\right)^2}$$

where SD=Standard deviation

$\sum D$ =Summation of deviation

N=Total number frequency

(3)'t' Test—

On the basis of this statistical technique the researcher interpreted the data of the related study. This technique is quite suitable for the interpretation.

Formula—

$$\frac{M_1 - M_2}{\sqrt{\frac{(SD_1)^2}{N_1} + \frac{(SD_2)^2}{N_2}}}$$

Where - t =t-test

M₁=Mean of the first group individuals

M₂ = Mean of the Second group individuals

SD₁ =Standard Deviation of First Group

SD₂ =Standard Deviation of Second Group

N₁ =Number of Individuals in First Group

N₂ = Number of Individuals in Second Group

References

- 1.Aparna Tickoo and Hussain, M: G. (1986), "Psychological correlates of Giftedness" Jamia Millia Islamia.
- 2.Bhatt, C.L, (1973), "Gifted Children" - A Psychological, Sociological and educational study.
- 3.Burt, S.C, "The Gifted Child" New York: John Wiley and Soms, Inc. 1975.
- 4.Dettann, R.F. and Havighart, R.J. (1957), "Educating gifted Children" Chicago: The University, of Chicago Press.
- 5.Feldmann, D (1979) "The Mysterious care of extreme Giftedness" in A. Passor (Ed.) the educational of gifted and Talented: Seventy-Eight Yein book of the National Society of the Study education, Chicago, University of Chicago press.
- 6.Gallaher, J.J. (1964), Research Trends and needs in educating Gifted" Washington: U.S. Govt. Printing Office.
- 7.Gallagher. J11 (1967), " The Gifted child in the elementary School, " Department of Classroom Teachers of the National Education Association.
- 8.Goldebhery, Mirian & Pes son (A.H.), "A study of under achievement gifted", Educational leadership 16:121-125, Nov. 1958.
- 9.Haggerd, E. At. "Socialization, Personality, and Academic achievement of gifted children", Schill review - 65:388-414, Dec 1957.

- 10.Kirk, S.A. (1970) " Educating the exceptional children" (Indian Edition) New Delhi: Oxford IBH PublishIng Co.
- 11.Kirk, S.A. and Callagher, I.I."Educating Exceptional children" Hongton Miffin Company, Boston - 1983.
- 12.Ross, Allen and Parker, Morolyon, Academic and social self-concept of the academically gifted", "Exceptional children" 1980,1:6-19.
- 13.Terman, L.M. and Oden, M: "Genetic studies of Genious, vol. V. The gifted Child grown Up" Standard University Press - 1947.
- 14.Termann, L.M. and oden, M, "Genetics studies of Genious, Vol, V The gifted group of Mid Life" stand ford university Press - 1959.
- 15.Torrance, E, Paul, " Psychological of gifted children and youth, in CRICKSHNAK (W.M.) Psychology of exceptional children and youth" practice Hall Inc. New Jersy - 1980.