CHAPTER – III

METHODOLOGY

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Methodology

The present chapter deals with method employed to achieve the objectives of the study. In this chapter, the methodological steps such as selection of the sample, variables of the study, design of the study, tools and techniques used, administration of tools and statistical techniques used for data analysis have been included.

3.1 Selection of the Sample

One of the most important, as well as difficult, problem that a research related to social science confronts is that of sampling. Studying the entire universe to arrive at generalization is not liable in many ways. Fortunately, the process of sampling makes it possible to draw valid inferences or generalization on the basis of careful observation of variables within a relatively small proportion of the population. Instead of studying every case, which might logically be included in an investigation, only a small portion is identified and selected for analysis. A representative sample is a miniature picture of the cross section of population from which it is being drawn.

The techniques of selecting the sample together with its size is an important aspect of research and it enhances the reliability and validity of the research findings. Since, every individual in the population can hardly be studied, the best way to study the universe is through representative sample by following appropriate sampling technique. In large number of the research studies in the educational, economic, commercial and psychological domains, the strategy of sampling technique is used and considered most appropriate for researches.

Purposive sampling technique was used to draw sample for the present study. All the students studying from classes VI to VIII residing in SOS village were served as population. They were administered IPAT Anxiety Scale. On the basis of anxiety scores, they were classified into two groups i.e. low and high. Raw scores, were then converted into stanine scores. The children with stanine scores of 7, 8, 9 and 10 were treated as high anxiety and those with stanine scores of 1, 2 and 3 were considered as low anxiety. Thus, in all a total number of 30 students constituted the sample of the present study.

3.2 Variables of the Study

Variables are the conditions or characteristics that the investigator manipulates, control or observes. According to Kerlinger, "variable is a property that takes on different value". It is any feature or aspect of an event, functions or process that, by its presence and nature, affects some other event or process, which is being studied.

Independent Variables : The independent or predictor variables are the variables on which the groups differ, either because they are exposed to different treatment or because of some inherent characteristics of the groups. In the present study following independent variables has been used.

- **Anxiety** — **Low Anxiety**
  - **High Anxiety**

Dependent Variables : The dependent or criterion variable is the variable that the investigator is interested in measuring to determine how it is different for groups with different experiences or characteristics. The dependent variable gets its name because it depends on what researcher

does with the independent variable. Following dependent variables have been used in present study :

- Self confidence
- Academic achievement.

3.3 Design of the Study

"A research design is a specification of operations for the testing of hypothesis under a given set of condition".

- Tuckman

The present study is comparative in nature and falls under the broad category called descriptive research. It was a status study used to compare self confidence and academic achievement of children of SOS village having low and high anxiety scores. Also effort was made to find out the relationship between self-confidence and academic achievement of low and high anxious children.

3.4 Tools and Techniques used

A researcher requires an appropriate data gathering tools or techniques. Each tools is suitable for the collection of the certain type of information. One has to select from the available tools those which will provide data she / he seek for testing hypothesis.

Anxiety – IPAT (8 parallel form Anxiety Battery) Anxiety scale prepared by S.D. Kapoor.

Self-confidence – Researcher developed an inventory on the basis of the existing "Agnihotri's Self-confidence Inventory".

3.4.1 IPAT Anxiety Scale

It is a brief, non-stressful clinically valid questionnaire for measuring anxiety, applicable to all but the lowest educational levels and

appropriate for ages of 13 or 14 yrs. on upward throughout the adult range. It consists of 40 questions distributed among the five anxiety – measuring factors (or components) according to each personality components centrality as a source or expression or expression of anxiety.

Table 3.1 : Item Composition of the IPAT Anxiety Scale

The five factors which group together as Anxiety components	Weight (No. of items)	Identification of Items by Number on Test from	
Q3 (-) Defective Integration, Lack of Self Sentiment	8	1, 2, 3, 4	21, 22, 23, 24
C (-) Ego weakness, Lack of Ego strength	6	5, 6, 7	25, 26, 27
L Suspiciousness or Paranoid Insecurity	4	8, 9	28, 29
O Guilt Proneness	12	10, 11, 12, 13, 14, 15	30, 31, 32, 33, 34, 35
Q_4 Frustrative Tension or Id Pressure	10	16, 17, 18, 19, 20	36, 37, 38, 39, 40
		Covert Hidden	Overt Symptomatic

Validity

Two types of validity are reported –

(1) Construct (Internal) validity against the psychometric factor is estimated at +.85 to +.90 for the total scale.

(2) External concrete validity, on the criterion of psychiatric evaluations of anxiety clinical judgement of anxiety and diagnostic classifications of patients are the main external validity criteria.

Reliability

It can be distinguished between dependability (immediate retest), stability (test-retest after a long interval) and homogeneity coefficients (split half, or alpha coefficients, measuring general homogeneity).

Scoring

Apply the cardboard stencil key directly to the test form following the simple instructions printed on the key itself. The score simply adds 2's or 1's for each item, according to the figures printed by the hole through which the check mark appears. Higher score always means more anxiety. Considering first only the total score on the scale, an individual or group sten of 1, 2, 3 indicates stability, securing and mental health generally. Stens of 4, 5, 6 and 7 are still in the "normal range" and need occasion no particular further enquiry if the individual has no other indications of psychological difficulty, although sten 7 is beginning to get underline high and might bear further watching with periodic retesting etc. when the sten level reaches 8, 9 or 10 there is definite psychological morbidity, almost certain to have adverse effects generally on work and social – emotional adjustment.

3.4.2 Self-confidence Inventory

In order to assess the self-confidence of children, the researcher developed an inventory on the basis of Agnihotri's Self-confidence i.e. developed by Rekha Agnihotri (1987). This inventory consists of 30 questions distributed among the following four components :-

a. Self respect.
b. Self worth
c. Self esteem
d. Self-honesty

Scoring

There are 30 items in this inventory. Every statement has two alternative responses : Yes and No.The subject has to choose only one response. The scheme of scoring is as :-

- For positive statement.

  'l' score for 'yes' and 'o' score for 'no'.

- For negative statement –

  'l' score for 'no' and 'o' score for 'yes'.

  Thus, high score on the test indicates high self-confidence and low score on the test indicates low self-confidence.

3.5 Administration of the Tools

After getting the letter for data collection from the education department R.I.E., Bhopal by the Head we were proceed for the data collection.

The researcher visited the SOS Village, Bhopal and met the Director. Purpose of the entire research project was discussed and a request to grant permission for taking class VI to VIII children for the research work. After discussing the detailed schedule, the Director was convinced and he allow to take up such project in his village. Director instructed to one of the instructor / counselor for help. Then he allotted me time and date for administrating the tool.

The data regarding children's anxiety and self-confidence was collected through scale and inventory.

During the administration of IPAT Anxiety Scale all the students were asked to sit comfortably and rapport was established with a brief general talks with the students. Instructions printed on the test were read

by the researcher and subjects were asked to read them silently and carefully. If there was any confusion regarding the instructions, children were asked by raising their hands. There was nothing wrong or right in the answers. There was no fixed time limit for the test but ordinary the children took 15 to 20 minutes time in completing the test. The researcher assured the children that their answers would always remain confidential and made every effort to secure the sincere cooperation from the children. After the completion of the inventory it get back collected from the children.

On the basis of anxiety scores, they were classified into two group i.e. low and high. Self-confidence Inventory were given to them. Instructions and detailed information regarding the tool was given to students for their convenient. Each student took 5-10 min. to complete the inventory. As soon as the children finished answering, the answer sheet was collected.

The research scholar met administrator for the school record of these children. All the information regarding to the data collection was taken from the office. For academic achivement, the percentage of marks obtained by the children in previous examinations was obtained with the help of office records.

3.6 Statistical Techniques used

Student **Mann Whitney 'U' test** was used as the statistical technique to compare scores of two groups.

Rank Order Correlation was calculated to find out the relationship between variables.