CHAPTER III

Research Methodology
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RESEARCH METHODOLOGY

3.01. INTRODUCTION

Research may be defined as the systematic and objective analysis and recording of controlled observations that may lead to the development of generalizations, principles or theories resulting in prediction and possible ultimate control of events” (John W. Best and James V. Khan, 1999, p. 25).

Research is actually a voyage of discovery. It is always directed towards solution to a problem. It develops curiosity about the unknown and it is a procedure from known to unknown. The ultimate goal of any research work is to find out the cause and effect relationship between variables. It is an intellectual activity in which systematic analysis is done. Research gathers new data from primary sources and secondary sources.

C. Francis Rummel defines Research as an endeavour to discover, develop and verify knowledge. It is an intellectual process that has developed over hundreds of years, ever changing in purpose and form and always searching for truth.” (N. R. Saxena, B. K Mishra, R. K Mohanty, 2006, p.23)

Methodology is essential in systematic research. Methodology is a science of orderliness. It is a technique adopted for an orderly arrangement of facts and principles. The success of any research depends largely on the suitability of method, the tools and techniques used for the collection of data.
3.02. METHODS OF RESEARCH

All researchers involve the elements of observation, description and the analysis of what happens under certain circumstances. Researchers use different methods in their research activities. The solution of such method depends on the nature, objectives and population of the study. A simple three-point analysis may be used to classify research. Usually all studies fall under one or a combination of these types. Some important methods of research are the following:

1. Historical Research,
2. Experimental Research and
3. Survey or Descriptive Research.

**Historical Research**

It is concerned with the past and in its attempts are made to find out the past in the perspective of the present. Its process involves investigating, recording, analyzing and interpreting the events of the past for discovering generalization. It answers the question what was.

**Experimental Method**

It may be defined as the study of relationship among variables those manipulated and those measured. It simply enables the researcher to improve the conditions under which the researchers observe and thus arrive at more precise results. Attempts are made to find out cause and effect relationship.
Survey Method

It is concerned with the present and it attempts to find out the present position of the phenomena, which is being investigated. Its process involves description, recording, analyzing and interpreting conditions that now exist.

Survey is a procedure in which data are systematically collected from a population through some form of direct solicitation such as face-to-face interview, questionnaire or schedule.

3.03. NATURE OF THE SURVEY METHOD

The nature of the survey methods is as follows:

1. It deals with the present.

2. It is oriented towards the determination of the status of given phenomena rather than isolating causing factors accounting for its existence.

3. It is generally based on cross-sectional samples.

4. It has a fact-finding approach.

5. It studies significant relationship among phenomena.

3.04. METHOD ADOPTED IN THE PRESENT STUDY

Survey method is selected for the present study. Survey research deals with the incidence, distribution and relationships of educational, psychological and sociological variables. Survey is a procedure in which data are systematically collected from a population through some direct solicitations such as face-to-face interview, questionnaire or schedule, observation etc.
According to John W. Best (1959) 3"The survey is extensive and cross-sectional dealing with a relatively large number of cases at a particular time and yielding statistics that are abstracted from particular cases." (P. 106)

3.05 TOOLS USED IN THE STUDY

1. "Personal Values Questionnaire" (PVQ) with 10 dimensions developed by G.P Sheery and R.P Verman (1978).

2. "The Multi-Dimensional Personality Inventory" with six dimensions of personality traits constructed by Manju Rani Agarwal (1978). Self-concept, Temperament, Adjustment and Anxiety are the four dimensions of the inventory used by the investigator.

3. Personal data form.

3.06 PERSONAL VALUES QUESTIONNAIRE

The Personal Values Questionnaire by G. P. Sherry and R. P. Verma has the potential to measure ten dimensions of values:

1. Religious Value,

2. Social Value,

3. Democratic Value,

4. Aesthetic Value,

5. Economic Value,

6. Knowledge Value,

7. Hedonistic Value,
8. Power Value,

9. Family Prestige Value and


1) Religious Value

This value is defined in terms of faith of God, attempt to understand him, fear of divine wrath and acting according to the ethical codes prescribed in the religious books. The outward acts of behavior expressive of this values are going on pilgrimage, living a simple life, having faith in the religious leaders, worshipping God and speaking the truth.

2) Social Value

This value is defined in terms of charity, kindness, love and sympathy for the people, efforts to serve God through the service of mankind, sacrificing personal comforts and gains to relieve the needy and the affected of their misery.

3) Democratic Value

This value is characterized by respect for individuality, absence of discrimination among persons on the bases of sex, language, religion, caste, color, race and family status, ensuring equal social, political and religious rights to all, impartiality and social justice and respect for the democratic institutions.
4) Aesthetic Value

Aesthetic value is characterized by appreciation of beauty, form proportion and harmony, love for fine arts, drawing-painting, music, dance, sculpture, poetry and architecture, love for literature, love for decoration of the home and the surroundings, neatness and system in the arrangement of the things.

5) Economic Value

This value stands for desire for money and material gains. A man with high economic value is guided by considerations of money and material gain in the choice of his job. His attitude towards the rich persons and the industrialists is favorable and he considers them helpful for the progress of the country.

6) Knowledge Value

This value stands for love of knowledge of the theoretical principles of any activity, and love of discovery of truth. A man with knowledge value considers knowledge as essential for success. He studies only if it helps to find out new facts and relationships. For him knowledge is virtue.

7) Hedonistic Value

Hedonistic Value, as defined here, is the conception of the desirability of loving pleasure and avoiding pain. For a hedonist, the present is more important than the future. A man with hedonist value indulges in pleasures of senses and avoids pain.
8) Power Value

Power value is defined as the conception of desirability of ruling over others and also of leading others. A person of high power value desires to exercise authority over others. He prefers to rule in a small place rather than serve in a big place. He is deeply status-conscious.

9) Family Prestige Value

As defined here, the family prestige value is the conception of the desirability of such items of behavior, roles, functions and relationships as would become one’s family status. It implies respect for roles, which are traditionally characteristic of different castes of Indian society. It also implies the maintenance of the purity of family blood.

10) Health Value

Health value is the consideration for keeping the body in a fit state for carrying out one’s normal duties and functions. It also implies the consideration for self-preservation. A man with high health value really feels is through some act of negligence he impairs his health, he considers good physical health essential for the development and use of his abilities.

3.07. MULTI-DIMENSIONAL PERSONALITY INVENTORY

The Multi-Dimensional Personality Inventory by Manju Rani Agarwal has the potential to measure six dimensions of personality-Extroversion-Introversion, Self-concept, Dependence-independence, Temperament,
Adjustment and Anxiety. The investigator has taken four dimensions of the inventory: Each dimension consists of 20 items.

i) Self-concept

The 'Self' has been considered as central construct of the personality, one's idea about himself, the end result of one's experience or the nucleus of personality.

ii) Temperament

Temperament refers to reaction of the person toward emotional situation. By knowing temperament of the person one can estimate personality of the person, because this is related to the consistency or mental imbalance and considered as one of the important factor of personality.

Adjustment

By 'Adjustment', means an index of integration between needs and stress, which has a close relation to personality

Anxiety

By 'Anxiety', means that it is something felt, unpleasant effect of state or condition.

3.08. PERSONAL DATA FORM

The respondents were asked to fill up a personal data form in order to seek information about them like standard, sex, religion, community, nature of school, type of school and location of school.
The questionnaire on personal values tries to find the level of values of higher secondary school students ten personal values such as religious, social democratic, aesthetic, economic, knowledge, hedonistic, power, family prestige and health.

3.09. COLLECTION OF DATA

The investigator after the preparation of the tool questionnaire sought the permission of the head of the Institutions. With the permission of the heads of Institutions, the investigator met the students and got the questionnaire filled up.

3.10. VALIDITY OF THE TOOL

Validity of the tool is established by author.

3.11. RELIABILITY OF THE TOOL

A tool is said to be reliable if its scores are both stable and trust worthy. So reliability refers to consistency of the scores obtained by the individuals when examined by the tool administered on different conditions.

After constructing the drafted tool, the investigator administered the tool to 50 students who are the members of the sample. After a gap of 10 days the investigator again administered the tool to the same 50 students. The scores obtained from the two tests were analyzed and found to be consistent to each other. The reliability of the tool for finding the correlation of self-concept from test, re-test values was found to be 0.607. The reliability of the tool for finding the correlation of temperament from test and re-test values was found
to be 0.614. The reliability of the tool for finding the correlation of adjustment from test and re-test values was found to be 0.594. The reliability of the tool for finding the correlation of anxiety from test and re-test values was found to be 0.513. The reliability of the tool for finding the correlation of religious value from test and re-test values was found to be 0.621. The reliability of the tool for finding the correlation of social value from test and re-test values was found to be 0.572. The reliability of the tool for finding the correlation of democratic value from test and re-test values was found to be 0.662. The reliability of the tool for finding the correlation of aesthetic value from test and re-test values was found to be 0.507. The reliability of the tool for finding the correlation of economic value from test and re-test was found values to be 0.521. The reliability of the tool for finding the correlation of knowledge value from test and re-test was found to be 0.637. The reliability of the tool for finding the correlation of hedonistic value from test and re-test values was found to be 0.542. The reliability of the tool for finding the correlation of power value from test and re-test values was found to be 0.604. The reliability of the tool for finding the correlation of family prestige value from test and re-test values was found to be 0.522. The reliability of the tool for finding the correlation of health value from test and re-test values was found to be 0.630. The reliability of the tool for finding the correlation of value as a whole from test and re-test values was found to be 0.604.
3.12. POPULATION OF THE STUDY

The population of the study consists of higher secondary students in Kuzhithurai Educational District.

3.13. SAMPLE

The investigator has used random sampling technique for selecting the sample and the investigator randomly selected 281 students from nine schools of Kuzhithurai Educational District, which form the sample. The names of the nine schools are listed in the following table.


3.14. SCORING

*Multi-dimensional Personality Inventory*

The scoring was done with the key given by the author of 'Multi-Dimensional Personality Inventory' for the two-personality traits. Each item
has three alternative answers 'Yes', 'Indefinite' and 'No'. The following scoring procedure was used for 'Yes' three scores, for 'Indefinite' two scores and for 'No' one score.

**Personal Values Questionnaire**

There are 60 items in total. Each item consists of two parts: (i) Stem and (ii) items. In the stem of the questionnaire a criterion situation for seeking the value preference is depicted. The item contains three values. For which the respondent has to express his or her preference under the stimulus of the criterion situation. Three options responding three values were given and the respondent has to put tick (✓) mark against the most preferred answer and put (×) mark against least preferred answer. The responses are to be scored as follows:

1. 2 for a tick mark (✓) showing the most preferred value under the stem.
2. 0 for a cross (×) showing the least preferred value under the stem.
3. 1 for the blank (✓) or unmarked item showing the intermediate preference for the value.

**3.15. STATISTICS USED**

Research depends on statistics when descriptions are qualified. They can be analyzed well. The investigator has used the following statistics for analysis of the data.

1. **Mean**

Mean is calculated by using the formula
\[
\bar{x} = \frac{\Sigma x}{N}
\]

\(\bar{x}\) = Arithmetic mean

\(\Sigma x\) = Sum of scores

\(N\) = Number of scores

### 2. Standard deviation

Standard deviation has been calculated by using the formula

\[
S.D = \frac{1}{N} \sqrt{N \Sigma x^2 - (\Sigma x)^2}
\]

Where,

\(X\) = individual score

\(\Sigma\) = Sum of

\(N\) = Number of items

\(\Sigma x\) = Sum of scores

\(\Sigma x^2\) = Sum of the scores squared

### 3. ‘t’ test

‘t’ test has been employed to find out the significant difference between the mean of different variables.

\[
t = \frac{M_1 - M_2}{\sqrt{\frac{S_1^2}{N_1} + \frac{S_2^2}{N_2}}}
\]

Where,
\[ M_1 = \text{Mean of the first group} \]
\[ M_2 = \text{Mean of the second group} \]
\[ S_1 = \text{S.D. of the first group} \]
\[ S_2 = \text{S.D. of the second group} \]
\[ N_1 = \text{Size of the first group} \]
\[ N_2 = \text{Size of the second group} \]

4. **Product Moment Correlation**

Product Moment Correlation co-efficient is used to find out the reliability of the questionnaire. The formula used is

\[ r = \frac{N(\Sigma xy) - (\Sigma x)(\Sigma y)}{\sqrt{N\Sigma x^2 - (\Sigma x)^2} \sqrt{N\Sigma y^2 - (\Sigma y)^2}} \]

Where,

\[ N = \text{Number of scores} \]
\[ \Sigma x = \text{Sum of the x scores} \]
\[ \Sigma y = \text{Sum of the y scores} \]
\[ \Sigma x^2 = \text{Sum of the x scores squared} \]
\[ \Sigma y^2 = \text{Sum of the y scores squared} \]
\[ \Sigma xy = \text{Sum of the product of x and y scores} \]
REFERENCES

