Chapter – III

DESIGN OF THE STUDY

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3.1 <u>INTRODUCTION</u>

Research has been considered as the more formal, systematic and intensive process of carrying on a scientific base of analysis. It applies theories to solve a problem in a particular setting. Research is a power of suspending with patience, of meditating and congitating with pleasure, of asserting with caution, correcting with readiness and of arranging thought . Research is an art of scientific study. Thus the purpose of any research in any discipline is to find out arranging answers to questions through the application of scientific procedures. The effectiveness of research study depends on how it is being planned and carried out by the investigator . The information obtained from this research can be used to understand the reasons behind certain attitudes towards vocational education.

Therefore, selecting an appropriate method of research as an important task on the part of the researcher. There are various steps of the plan to be adopted in solving a research problem, such as manner in which the problems are formulated, the definition of terms, the choice of subjects for investigation the validation of data gathering tools, the collection, analysis and interpretation of data and the process of inferences and generalization.

This chapter deals with the method and procedure adopted for undertaking the study .This chapter presents the description of design of the study , including sampling, tools, data collection, data analysis and statistical techniques used in this research.

3.2   RESEARCH   METHODOLOGY

"Research methodology is a way to systematically solve the research problem. It can be understood as a science of studying how research is done scientifically" (Kothari, 2004). It has been defined as the specific procedures or techniques used to identify, select, process, and analyse information about a research topic.

Research methodology is the procedure, which is designed and adopted in solving a research problem. The purpose of any research methodology is to provide a maximum amount of information relevant to the problem under investigation at a minimum cost. The careful selection of a method is an essential prerequisite for an investigation. Although, there are several methods of conducting a research but the selection of research method depends on the nature of the research problem.

The purpose of the present study was to explore the attitude of students towards vocational education. The participants of this study were secondary school students. This present study was incorporate the quantitative method of research to describe record and descriptive survey method was used to collect data by self made tool to measure attitude of students towards vocational education. The survey method can be used for descriptive, exploratory, or explanatory research. This method is best suited for studies that have individual people as the unit of analysis. Quantitative data was collected using attitude scale made as a Likert scale.

Likert scale was used instead of using Likert items as item-wise analysis would not have yielded the overall attitude and would have given attitude towards individual items. So the items were arranged in table and analysed through Likert-scale. An effort was made

to include all type of statements which represents all aspects that would be responsible for formation of particular attitude.

After collection of data , statistical tests were used to analyse the data and make inferences about the attitude of students towards vocational education.

3.3   POPULATION OF THE STUDY

According to L.R. Gay (1990), "Population is the group of interest to the researcher, the group to which he or she would like the results of the study to be generalisable. The defined population has at least one characteristic that differentiates it from the other groups".

A population may be defined as any identifiable group of individuals or as any collection or aggregate of comparable measures. Population may be either finite or infinite, either real or hypothetical. A finite population is one, all members of which may be counted. An infinite population is one of unlimited size. For example, all possible weights of eight-year-old children in this country would constitute an infinite population. While the actual weights of the eights year old children now living in this country would constitute a finite population.

It is the universe consisted of all the individual or observation conforming to a set of which the particular study covers. A population is generally a group or a well- defined collection of individuals or objects which possess common binding characteristics or trait.

The population of the present study consists of secondary school students of government schools and private schools of Bhopal city.

3.4 SAMPLE OF THE STUDY

A researcher's primary purpose is to discover principles that have a universal application. It is however impractical to study the entire population in order to arrival at generalizations due to various infrastructural constraints.

Sampling means the method of selecting a group or objects from a population. The process of sampling makes it possible to draw valid inferences or generalizations on the basis of careful observations of variables within a relatively small proportion of the population. The entire group from which the sample has been taken is known as the population.

According to Kaul. L. (1984), "Sampling is the process by which a relatively small number of individual or measures of individuals, objects or events is selected and analysed in order to find out something about the entire population from which it was selected".

The sample of the study comprises two schools of government and 2 schools of private. It consisted of 50 students of government school and 50 students of private school of class IX and X.

3.5 SAMPLE SELECTION

The method of selecting sample is of fundamental importance .Sample selection depends upon the nature of data and investigation. For selecting the schools purposive method of sampling was applied and the population sample from the chosen schools was selected randomly for the research. Purposive sampling was used in order to minimize disruption to the students and ensure that a variety was represented in the sample. It also helps to constitute a small sample out of a huge one, which will be typical representative of the whole.

3.6   VARIABLE IN THE STUDY

Variable are defined as attributes of the object of the study. In this study following variables are:

I.   **Dependent variable**
   - Attitude of students

II.   **Independent variables**

   - ## Gender

     On the basis of gender, the students are categorized as given below

     a. Girls
     b. Boys

Table 3.1 : Number of students selected on the basis of gender

S.NO.	GENDER	NO. OF STUDENTS
1.	GIRLS	50
2.	BOYS	50

   - ## Type of schools

     On the basis of the school management, the secondary schools are categorized as given below

     a. Government schools
     b. Private schools

Table 3.2 : Number of school selected on the basis of type of schools

S.NO.	TYPE OF SCHOOL	NO. OF SCHOOLS
1.	GOVERNMENT	2
2.	PRIVATE	2

For finding if there is any difference between attitude of government and private school students and between boys and girls students. Attitude of students is taken as dependent variable and gender, type of school as control variable.

3.7   RESEARCH TOOL USED

For any research study, the researcher has to collect data. On the basis of the data, conclusions are drawn and generalizations are derived. The conclusions and generalizations will be correct and valid if the data is methodically gathered by the use of reliable tools and techniques. Tools are the way during which more than a few phenomena, qualities, attributes, personality traits, events, quantities are measured. The selection of the tools depends to a large extent, upon the nature and purpose of the study.

Based on objectives of the study .Self-developed vocational education attitude scale was designed for the respondents. The tool were constructed based on Likert-scale. The questionnaire consists of statements with a five-point Likert-scale which included 20 statements .

3.7.1 Scoring Procedure

There are 20 statements. The responses were given with weightage of 5, 4, 3, 2, 1 for positive statements. And the weightage were given 1, 2, 3, 4, 5 for negative statements.

Table 3.3 : Scoring for positive and negative statements in the attitude scale

Statements	Strongly agree	Agree	Neutral	Disagree	Strongly disagree
Positive statements	5	4	3	2	1
Negative statements	1	2	3	4	5

3.7.2 Description of the tool

The first part of the scale was basic information of the respondent like name, class, gender, age, name of school and information and instruction about the ratings. The second part of the scale provided the dependent variable for this study.

The statements for the scale were developed with the target subject in mind i.e, students attitude towards vocational education. The statements were selected on the basis of the research questions. Positive and negative sentences were randomly mixed in the scale. Five point Likert-scale was used for the construction of the scale to measure attitude towards vocation education. The respondent can respond on any option: strongly agree, agree, neutral, disagree, strongly disagree.

3.8 PROCEDURE OF DATA COLLECTION

Primary data for the study was collected through self developed attitude scale. After selecting the samples the researcher visited all the schools individually for the collection of data. The principals of the school were contacted for this purpose. After meeting the principals'

researcher took the permission for data collection. Before administration of tools the researcher has established rapport with the respondents and explained the purpose of the research so that they feel at ease. They were acquainted with the topic . They were assured that the data collected from them will be kept confidential .

The language used in the survey was very simple and easy to understand. Instructions were clearly stated by the researcher and respondent to fill the information carefully, instructed them to answer all the questions. All efforts were made to get the co-operation of the students.

3.9   STATISTICAL TECHNIQUES USED FOR ANALYSIS OF THE DATA

Statistics is the body of mathematical techniques or processes for gathering, describing, organizing and interpreting numerical data. Since research yields such quantitative data, statistics is a basic tool of measurement. Therefore for the purpose of the study the researcher used the following statistical techniques for analyzing the data:

1.	Mean

2.	Standard deviation

3.	T-test

In this chapter the design of the study including research methodology, sample, tool data collection and statistical analysis to be used in the study were discussed in detail. In the next chapter the results of the statistical analysis of the data are presented.