

## **CHAPTER- III: PLAN AND PROCEDURE**

The term 'design' means 'drawing an outline 'or planning or arranging details. It is a process of making decisions before the situation arises in which the decision has to be carried out. The research design is basically a plan or blue print to be followed for conducting the research. The description of the design indicates the basic structure of the study. The nature of the hypothesis, the variables involved and the constraints of the "real world"-all contribute to the design to be used. The specific design used depends on the purpose and condition of the research.

Russell (1961) maintains that research design is "planning various phases and procedures relating to the formulation of research efforts". He further explains it "an arrangement of the essential condition for collection and analysis of the data in the form that aims at combining relevance to research purpose with economy in the procedure".

According to Bulmer (1974) "research design is the specification of the problem, conceptual definitions, derivation of hypotheses to test and defining of population to be studied".

According to Kerlinger (1976) "A research design is the plan, structure and strategy of investigation conceived so as to obtain answer to research question and control variance. The plan is the overall scheme or program of the research. It includes an outline of everything the investigator will do from writing the hypothesis and their operational implications to the final analysis of the data. The structure of the research is more specific it is the outline, the scheme, the paradigm of the operation of the variables. Strategy is more specific than plan. It includes the methods to be used together and analyze the data". In other words strategy implies how the research objectives will be reached and how the problem encountered in the research will be tackled.

According to Manheim (1977) "research design not only anticipates and specifies the seemingly countless decisions connected with carrying out data collections, processing and analysis but it presents a logical basis for the decisions".

According to Zikmund (1988) research design is “a master plan specifying the methods and procedures for the collecting and analyzing the needed information”.

Thus, the design of the study is comparable to the blue print that the architect prepared before the bricks are laid and building commences, because good research must be carefully planned and systematically carried out, procedures that are improvised from step to step will not suffice. A worthwhile research project is likely to result from a well-designed study. After the selection of problem and formulation of hypothesis the third step is plan and procedure. It is mapping strategy based on sampling techniques. It is a planning stage of research usually made logically visualizing its practicability. The quality of a design of research is judged by the degree of accuracy attainable on the level of relevant evidence sought. So a good research design must be practical. So it indicates the line of approach of the study. It deals with the method, population and sample and tools and techniques employed in the study. It presents the procedure of the study and discusses in detail the whole plan of the study. It reports systematically the administration of tools and scoring procedure, the data organization and presentation.

Webster dictionary has defined methodology as “The science of method or arrangement”

*“Always there is the need for a thorough understanding of all research methods with understanding of all research methods with particular reference to their strength, limitation, applicability and appropriateness for an inappropriate method can only lead to unsatisfactory results.”*

**-George J. Mouley**

Plan and procedure highlight the work carried out by the investigator. Plan and procedure employed in an investigation determine its destiny. It is the character of the technique of research on which the degrees of precision, objectivity, reliability

and validity of results depends. The selection of the techniques and devices of the problem, time, function, availability of subjects and other resources at the disposal of the steps of the procedure adopted for the conduct of the study. The most complicated and crucial operation in the research work is the collection of data. If the methodology & procedure adopted by the investigator is not good, he will certainly be lost in hopelessness and helplessness universe. The selection of adequate methods, tools and techniques is a very difficult problem and must be handled with care and profound consideration in respect of time, cost, ability, experience and the need of the investigator.

Planning broadly includes methods of research to be adopted, sample to be selected, tools to be considered for use, procedure and cautions to be followed for collection of data and statistical treatment to be given to data for its conversion into meaningful information. In this chapter above mentioned dimensions of the research are discussed in details under the following heads:

- Research Method
- Population
- Sample
- Sample design
- Tools used
- Procedures and Administration
- Scoring Procedure
- Statistical Techniques Used

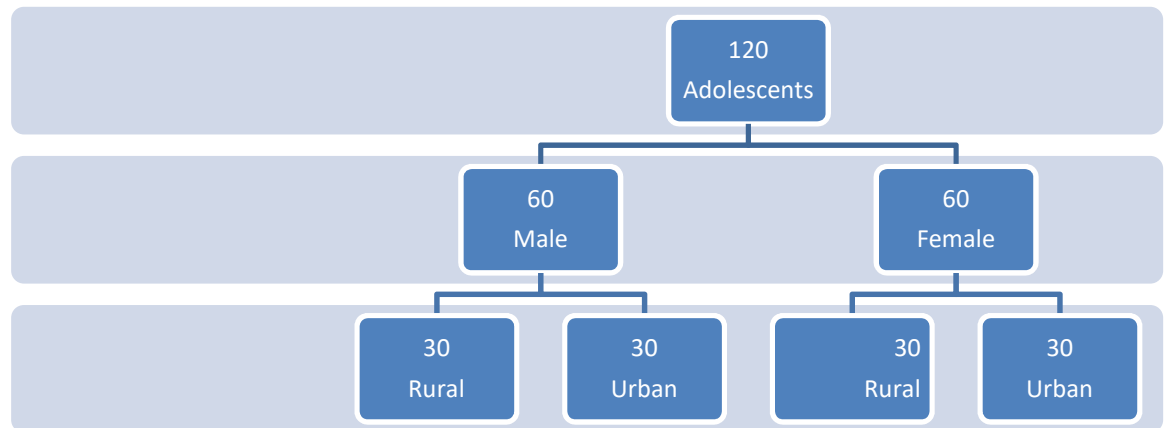
### **3.1 Method Used**

There are many methods of collecting, analyzing and reporting research data. Strictly speaking the decision about the method depends upon the nature of the problem and objectives to be achieved. For the present study, the investigator decided to adopt standardized test leadership style scale prepared by Dr. R.N. Singh and leadership-ability test prepared by C.S. Rathore.

### 3.2. Population

The term population in research is used in broader sense than its common place meaning as a population of people. The entire group from which the sample has been selected is called as the population. That group may consist of person, objects, attributes qualities, behaviour of people and animals, answer to various items of a test and the like. In the present study, the students of Mahendergarh District of Haryana have been considered as population.

### 3.3 Sample Design



### 3.4 Tools Used

Any kind of data concerning the study of surveys type research can be collected by using different type of tools. It is very necessary that right type of tools should be used for this purpose. The tools must be so devised that the data obtained are reliable, valid and sufficient.

The purpose of the present study was to judge the leadership style and abilities among adolescents. The investigator used a leadership style scale and leadership ability test to study the leadership style and abilities among adolescents.

### **3.5 Population**

All the adolescent of Haryana would be taken as population as the present population.

### **3.6 Sample**

120 adolescent would be taken as sample of the study. The sample would be selected on the basis of random sampling.

### **3.6 Method of data collection**

Survey method has used for collection of data.

### **3.8 Tools**

The researcher has used standardise test in consultation with the supervisor.

### **3.9 Administration of the tools**

First of all , the researcher took necessary permission from the Principal of the respective school after taking permission the researcher would administer test on the adolescent .

### **3.10 Analysis of data**

The data was analyzed qualitatively as well as quantitatively.

Mean

$$\mu = \frac{\sum x}{n}$$

The formula used to calculate the T Test is,

$$t = \frac{\bar{x}_1 - \bar{x}_2}{\sqrt{\frac{S_1^2}{N_1} + \frac{S_2^2}{N_2}}}$$

Where as

$\bar{X}_1$  is the mean of Leadership Style / Leadership Ability of girls

$\bar{X}_2$  is the mean of Leadership Style / Leadership Ability of Boys

$S_1^2$  is the standard deviation of Leadership Style / Leadership Ability of girls

$S_2^2$  is the standard deviation of Leadership Style / Leadership Ability of boys

$N_1$  is the number of elements in the Leadership Style / Leadership Ability of girls

$N_2$  is the number of elements in the Leadership Style / Leadership Ability of boys

$$(s^2) = \Sigma [(x_i - \bar{x})^2] / n - 1.$$

- $s^2$  = Variance
- $\Sigma$  = Summation, which means the sum of every term in the equation after the summation sign.
- $x_i$  = Sample observation. This represents every term in the set.
- $\bar{x}$  = The mean. This represents the average of all the numbers in the set.
- $n$  = The sample size. You can think of this as the number of terms in the set.

### 3.11 Administration of Scoring:

The test can be administered individually as well in a small group. It takes around 30 minutes to answer all the items of the scale and test. The instruction regarding the filling up of the scale is given on the question sheet of the scale.

### 3.12 Scoring of the leadership style scale

The scoring of the L.P.C. scale is a measure of one's leadership style. More specifically, it indicate one's primary motivation or goal in work setting

To determine the L.P.C. score, add up the point (1 through 8) for each of the sixteen items. The score obtained by a person tell his or her leadership style. The score of a respondent may be interpreted as follows:

**Table 2. Scoring of the leadership style scale**

S. No.	Score	Interpretation
1	64 or above	High L.P.C. person relationship oriented
2	58-63	Mixed style
3	57 or less	Low L.P.C. person task oriented

### 3.12 Scoring of the leadership ability test

There are 30 sets of the statements. Every statement has two alternative choices. Allot one mark for the correct choice and zero mark for incorrect choice. Sum up all the marks and interpret in terms of category of leadership ability.

**Table 3. Categories of leadership ability:**

S. no	Categories	Boys	Girls
1	Very high ability	23 and above	24 and above
2	High ability	18-22	19-23
3	Moderate ability	13-17	14-18
4	Low ability	8-12	9-13
5	Very low ability	7 and less	8 and less

### 3.13 Statistical Techniques Used

**The researcher has used following statistical technique these are:**

- mean

- t-test
- standard deviation