Chapter 3

PLAN AND PROCEDURE OF THE STUDY

3.0 Introduction

3.1 Statement of the Problem

3.2 Objectives of the Study

3.3 Hypotheses of the Study

3.4 Method of the Study

3.5 The Tool Used
   3.5.1 Types of Attitude Scale
   3.5.2 Construction of the Tool
   3.5.3 Standardisation of the Tool

3.6 Population and Sample

3.7 Administration and Scoring

3.8 Statistical Techniques Used

3.9 Scope and Limitations of the Study

3.10 Conclusion
Chapter III

PLAN AND PROCEDURE OF THE STUDY

3.0. Introduction

Research is an essential and powerful tool in leading man towards progress. Without systematic research there would have been very little progress. Research is a systematic investigation resulting in some formal record of procedures and the report of conclusion and results. Research has been defined as a formal systematic and scientific method of analysis.

Educational research involves an application of the main principles of scientific research to the solution of educational problems. John W. Best defines educational research as- that activity which is directed towards development of a science of behaviour in educational situations. The ultimate aim of such a science is to provide knowledge that will permit the educator to achieve his goals by the most affective methods.

F. G. Cornell opines that educational research is an activity of collecting information in an orderly and systematic fashion and is a kind of human behaviour an activity in which people engages. Elaborating he says in education, teachers, administrators, scholars or others engage in educational research when they systematically assemble information about schools, school children, the social matrix in which a school system is determined, the characteristics of the learner or the interaction between the school and the pupils.
Travers considered educational research as that activity which is directed towards development of a science of behaviour in educational situations. He considered that the aim of research is to provide knowledge that will permit the educator to achieve this goal using the most effective methods.

Mouly, defined educational research as a systematic and scholarly application of scientific method.

This chapter includes all practical aspects of how this piece of research has been conducted. It starts with the focus of the study, research question, objectives of the study, hypotheses of the study, design of the study, which includes the tool, population and sample, administration and scoring, statistical techniques employed and the limitations of the study.

3.1. Statement of the Problem

It has been observed that Co-curricular activities are always looked upon as inferior to academic studies at all levels of Indian education, particularly in the state of Andhra Pradesh and it is evident from the number of students participating in Co-curricular activities and Extra-curricular activities from primary school level to the graduate, post-graduate, professional or vocational level of our educational system. Hence, the present study focuses on the attitudes and participation in Co-curricular activities of secondary school pupils only, even though there is a scope of studying the entire array of educational system in India in general and the state of Andhra Pradesh in particular. The study focuses only in the research areas of attitudes of
students towards Co-curricular activities and also their participation in Co-curricular activities and the correlation between them.

Since, the Co-curricular activities provide not only intellectual development but also the development of personality and broadens the pupils' mind in all walks of life, namely physical, biological, mental, moral, social, aesthetic, emotional and cultural, the pupils may fulfill their inner ambitions and quench their inner thirst of their various interest by choosing and participating in various activities, and it was emphasized time and again that these are very essential to the pupils to grow as perfect and responsible as well as respectable citizens of a nation. Hence, this subject was selected for the study.

3.2. Objectives of the Study

1. To study the Secondary School Pupils Attitudes towards Participation in Co-curricular Activities and classify them.

2. To study the influence of a) Gender b) Management of School c) Medium of Instruction and d) Location of School on the Secondary School Pupils Attitudes towards Participation in Co-curricular Activities.

3. To study the Secondary School Pupils Participation in Co-curricular Activities and classify them.

4. To study the influence of a) Gender b) Management of School c) Medium of Instruction and d) Location of School on the Secondary School Pupils Participation in Co-curricular Activities and classify them.

5. To study the Secondary School Pupils Participation in Co-curricular Activities area wise viz. i) School based activities ii) Library activities
iii) Cultural activities iv) School club activities v) Community based activities vi) Games and sports.

6. To study the influence of a) Gender b) Management of School c) Medium of Instruction and d) Location of School on the Secondary School Pupils Participation in school based activities.

7. To study the influence of a) Gender b) Management of School c) Medium of Instruction and d) Location of School on the Secondary School Pupils Participation in Library activities.

8. To study the influence of a) Gender b) Management of School c) Medium of Instruction and d) Location of School on the Secondary School Pupils Participation in Cultural activities.

9. To study the influence of a) Gender b) Management of School c) Medium of Instruction and d) Location of School on the Secondary School Pupils Participation in School club activities.

10. To study the influence of a) Gender b) Management of School c) Medium of Instruction and d) Location of School on the Secondary School Pupils Participation in Community based activities.

11. To study the influence of a) Gender b) Management of School c) Medium of Instruction and d) Location of School on the Secondary School Pupils Participation in Games and sports.

12. To find out the correlation between the Secondary School Pupils Participation in Co-curricular Activities and their Attitudes towards participation in Co-curricular activities.

3.3. Hypotheses of the Study

1. There would be no significant difference in the Secondary School Pupils Attitudes towards participation in Co-curricular Activities with respect to a) Gender b) Management of School c) Medium of Instruction and d) Location of School.

2. There would be no significant difference in the Secondary School Pupils Participation in Co-curricular Activities with respect to a) Gender b) Management of School c) Medium of Instruction and d) Location of School.

3. There would be no significant difference in the Secondary School Pupils participation in School based activities with respect to a) Gender b) Management of School c) Medium of Instruction and d) Location of School.

4. There would be no significant difference in the Secondary School Pupils participation in Library activities with respect to a) Gender b) Management of School c) Medium of Instruction and d) Location of School.

5. There would be no significant difference in the Secondary School Pupils participation in Cultural activities with respect to a) Gender b) Management of School c) Medium of Instruction and d) Location of School.
6. There would be no significant difference in the Secondary School Pupils participation in School club activities with respect to a) Gender b) Management of School c) Medium of Instruction and d) Location of School.

7. There would be no significant difference in the Secondary School Pupils participation in Community based Activities with respect to a) Gender b) Management of School c) Medium of Instruction and d) Location of School.

8. There would be no significant difference in the Secondary School Pupils participation in Games and sports with respect to a) Gender b) Management of School c) Medium of Instruction and d) Location of School.

9. There would be no significant correlation between the Secondary School Pupils participation in Co-curricular activities and their Attitudes towards Participation in Co-curricular Activities.

3.4 Method of the Study

The type of research undertaken by the investigator is exploratory in nature. It is a descriptive survey method of research. The word ‘survey’ has been derived from the two words ‘sure’ and ‘veer’ which means ‘over’ and ‘see’ respectively. Descriptive survey tells us ‘what is’. This has a very wide scope. It describes and interprets what exists at present.

According to John W. Best, descriptive survey research is concerned with condition or relationship that exist; practices that prevail; beliefs, points of
view, or attitude that are held; process that are going on; effects that are being built; or trends that are developing.

The investigator followed the survey method of the descriptive research. It involves a clearly defined imaginative planning, careful analysis and interpretation of data gathered and logical reporting on the investigation. To carry out the research of this type for collection of data, for testing the hypothesis and for arriving at certain conclusions, it is necessary to choose the technique and to employ the proper tools. Each data gathering device has both merits and limitations. For this investigation the questionnaire had been considered as a suitable tool for the collection of data.

3.5 The Tool Used

According to John W. Best, like the tools in the carpenter’s box, each research tool is appropriate in a given situation to accomplish a particular purpose for each data-gathering device has both merits and hazards or limitations. He says that the, instruments that are employed to gather new facts or to explore new fields are called as 'tools’. It is of vital importance to select suitable instruments or tools. Different tools are suitable for selecting different types of data. The investigator may use any one or more of the tools in combination for this purpose, there are two types of tools: standardized tools and tools prepared by the investigator. In this study the tools prepared by the investigator was used for data collection.

Well planned and conducted research programmes postulate sufficient, reliable and valid facts. Such facts are obtained through a systematic procedure, which involves various devices. Each research tool is appropriate
in a given situation to accomplish a particular purpose. The major tools of research in education can be classified broadly into the following types:

1. Inquiry forms
   i. Questionnaire.
   ii. Schedule
   iii. Check list
   iv. Rating scales
   v. Attitude scale

2. Observation

3. Interview

4. Sociometry

5. Psychological tests.
   i. Achievement tests.
   ii. Attitude tests.
   iii. Intelligence test
   iv. Interest inventory
   v. Personality Measures.

Keeping in view the characteristics and guidelines for construction and also its advantages, the investigator adopted the attitude scale and rating scale for finding out the participation in Co-curricular activities to collect the data and test the hypothesis.
3.5.1 Types of Attitude Scale

In the commonly used methods of measuring attitudes indirectly, most popular methods of measuring attitudes are Thurstone’s method and Likert’s method. The following are the five techniques of attitude measurement.

1. Thurstone’s scale.
2. Likert’s scale.
3. Guttmen’s scale
4. Rank order scale
5. Rating technique.

1. Thurstone’s Scale

To measure the attitude of an individual towards a group institution, idea or practice, a number of statements expressing different points of view about the subject in question or statements are given. They are submitted to a panel of judges in assigning a position or discarded. From the recommendations proposed by each judge of the items retained, a composite position for each statement is calculated.

Attitude Scale

Attitude scales have been designed to measure attitudes of an individual or group of people towards issues, institutions and groups of people. According to Barr, David, Johnson an attitude may be defined as a horned emotional response set for or against something.
Characteristics of Attitude scale:

1. It provides for the quantitative measure on a one-dimensional scale of continuum.

2. It uses statements from the extreme positive position to extreme negative position.

3. It generally uses a five-point scale / three point scale / or seven point scale as Agree (A), Undecided (U) Disagree (D).

4. It is usually standardized and norms are worked out.

5. It distinguishes the attitude towards object rather than directly asking about the attitude of the subject.

The median scale value of each statement, thus calculated on the basis of the panel judgment falls between one and eleven. This list of statements with which they are in agreement, or the response is quantified on the basis of the median value of the statements.

2. Likert's method of Summated Ratings

This device of attitude measurement is carried out without the panel judges necessary for the Thurstone's scale but yields scores very similar to these obtained by the latter. The first step in the construction of a tool is collection of a number of statements about the subject in question. Statements may or may not be correct. But they must be irrespective of opinion or attitude held by a certain number of people. They must express definite favorableness of unfavourableness to a particular point of view to test the internal constancy of the assembled items. A trial test should be
administered to a small group and the items found ambiguous should be rejected.

The actual Likert’s scaling techniques provides a five point scale and assigns each of the five positions a scale value. All favourable statements are scored from maximum to minimum as 3, 2, 1.

1. Agree
2. Undecided.
3. Disagree

The total scores obtained on all the items measure a respondent’s favourableness towards the subject in question.

Among the two methods the Likert and Thurstone’s techniques Likert is more empirical because he dealt with respondents rather than employing judges. The Likert method more directly determines the attitudes of the respondents. Hence the investigator has chosen the Likert method of summated ratings for the scoring of the attitude scale.

3.5.2 Construction of the Tool

The present piece of investigation is intended to study Attitudes and participation in Co-curricular activities of Secondary school pupils’ After going through the various previous investigations articles in journals and periodicals investigations in journals and periodicals and some of the research papers published on the subject matter, the investigator has divided the present research problem into two major sub heads i.e. i) Attitude towards participation in Co-curricular activities and ii) participation in Co-curricular Activities. The investigator developed and adopted an attitude scale to collect
the attitudes and a questionnaire to find out their participation in Co-curricular activities.

3.5.3 Standardisation of the Tool

An attitude scale comprising of 30 statements and a participation rating scale consisting of 50 activities in 6 categories was prepared in English. The pilot testing was done on 100 English medium students randomly selected from the schools in Guntur Town. The data was analysed and the reliability of the test was calculated. Item analysis was carried out to find out the difficulty and discrimination index of each of the items.

The Reliability Coefficient of the tool was calculated using split half method and found to be 0.58. The items which were answered by all students and those which were answered by none or which were marked as undecided by all were omitted. The items with poor discriminating value were also deleted. After deleting those questions the research tool was validated by three subject experts for the content validity and the construct validity. The items which are identified as vague or unclear were removed.

The final format of the tool which was in English was translated into Telugu and the language also had been corrected and validated by the subject experts and language experts. Hence, the tool had been prepared both in English and Telugu separately. The final tool hence comprises of an attitude scale with 15 statements on the participation in Co-curricular activities. Each of the statement is followed by three options: 1) Agree 2) Undecided and 3) Disagree. The rating scale part for finding out the participation of students in various Co-curricular activities comprises of six
sections each section containing 5 Co-curricular activities each. The Co-
curricular activities identified for the purpose of finding out the participation of
pupils for this piece of research are

(i) School Based Activities

(ii) Library Activities

(iii) Cultural Activities

(iv) School Club Activities

(v) Community Based Activities

(vi) Games and Sports

The final tool was administered once again for another 100 randomly
selected students (from both English and Telugu media) and the reliability
coefficient of the test is calculated and it is found to be 0.79. Hence, the tool
was finalised for the collection of data.

3.6 Population and Sample

Data may be collected either by the census method or by the sample
method. In the sample method the information is obtained only from a part of
the population and based on this inference is drawn for the entire population.
Sampling is thus a study of the part of the population.

Methods of sampling:

The following are some of the important methods of sampling.

1. Judgment sampling

2. Random sampling
3. Stratified Random sampling

4. Systematic sampling

5. Multi-stage sampling

For selecting the sample at random the following two methods were used.

1. Lottery method.

2. Table of Random numbers.

In this study, data was collected from a sample of 800 students using stratified random technique and the following table 3.1 presents the variable details of the sample.

Table 3.1 : Variable wise Distribution of the Sample

<table>
<thead>
<tr>
<th>S. No</th>
<th>Variable</th>
<th>Gender</th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Gender</td>
<td>Boy</td>
<td>518</td>
<td>64.75</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Girl</td>
<td>282</td>
<td>35.25</td>
</tr>
<tr>
<td>2.</td>
<td>Medium of Instruction</td>
<td>Telugu</td>
<td>485</td>
<td>60.625</td>
</tr>
<tr>
<td></td>
<td></td>
<td>English</td>
<td>315</td>
<td>39.375</td>
</tr>
<tr>
<td>3.</td>
<td>Type of Management</td>
<td>Government</td>
<td>212</td>
<td>26.5</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Local Bodies</td>
<td>502</td>
<td>62.75</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Private Aided</td>
<td>86</td>
<td>10.75</td>
</tr>
<tr>
<td>4.</td>
<td>Location of School</td>
<td>Urban</td>
<td>442</td>
<td>55.25</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Rural</td>
<td>358</td>
<td>44.75</td>
</tr>
</tbody>
</table>
3.7 Administration and Scoring

The data had been collected from 40 high schools in Guntur District of Andhra Pradesh by randomly selecting from the list of schools provided by the District Educational Officer, Guntur. 20 students from each school were chosen randomly by taking permission from the Headmaster/Headmistress of the school. The investigator himself visited all these schools situated in various parts of Guntur district of Andhra Pradesh and collected the data.

Each student was provided with one set of the research tool according to the medium of instruction i.e. English or Telugu. The students were given 30 minutes time each for filling the tool and for marking their participation and attitudes. This time was found to be sufficient as they could confidently express their participation as per the tool.

The tools were collected and the data entry and analysis was carried out on computers. SPSS 11.0 version software was used for all statistical calculations.

3.8 Statistical Techniques Used

The data had been analysed by the help of computers. Information has been generated by using the frequencies, descriptive, t-tests, ANOVA and correlations. The graphs are generated using MS-EXCEL.

3.9 Scope and Limitations of the Study

Keeping in view of the limitation of time the researcher confined to study in the Guntur district of Andhra Pradesh with a selected a sample of 800 students studying in high schools. In view of practical difficulties the sample was chosen from urban and rural areas only.
Keeping in view of the non-availability of sufficient time and due to the financial constraints it was not possible to cover a large area. The researcher also confined the study to only few variables and also did not study the other factors / conditions which may influence or have an effect on the study.

3.10. Conclusion

The plan, procedure and the statistics to be used to analyze the data were discussed in the present chapter. In the following chapter the investigator presents the data, its analysis and interpretation.