CHAPTER III
PROCEDURE AND DESIGN OF THE STUDY

The agendum is comparable to the blueprint which the architect prepares before the bids are let and building commences

- John W. Best
CHAPTER –III
PROCEDURE AND DESIGN OF THE STUDY

3.0.0 Introduction

Methodology of the study is as important as the study itself. The investigator should have a clear idea about the selection of the sample, data gathering procedures, and the data analysis techniques so that the results obtained from the study could be generalized to a great extent. In the light of the theoretical framework and the review of related research studies discussed in the earlier chapters, the investigator was able to have a blue-print of this proposed study. This chapter deals with the objectives, hypotheses, delimitations, the sample, selection and administration of the data collecting instruments, scoring and general procedure adopted for the completion of the present investigation.

Research Design provides a picture to the researcher what and how to do the work in hand. It has been determined from time to time that a suitable research design guards against the collection of irrelevant data. So, in a research project, design provides the investigator a blue print of research. Design dictates the boundaries of project and helps in controlling the experimental, extraneous error variances of the problem under investigation.

Mouly (1964) has aptly remarked “Scientific problem can be resolved only on the basis of data and major responsibility of the scientist is to set up a research design capable of providing the data necessary to the solution of his problem. While the unit of research makes it impossible to say that one aspect is more crucial than another, the collection of data is of paramount importance in the conduct of research, since obviously, no solution can be more adequate than the data on which it is based.”
In this context, Van Dalen (1973) has rightly said that research is not to be divided into water tight compartments. He stated, “Research is often a confused, floundering process rather than a logical, orderly one. An investigator does not tackle one step at a time, complete that process, and then move on the next step. He may tackle the steps out of order, shuffle back and forth between steps, or work on two steps more or less simultaneously, when the investigator reports his findings to the scientific community, however, he structures his presentation in a precise and logically arranged form which closely parallels the steps of the scientific method”.

Thoughtlessness in designing any research proposal leads to blind alleys and renders the research effort futile. Kothari (1990) observed that the research design must make enough provisions for protection against bias and must minimize reliability, with due concern to the economical completion of the study. Kerlinger (1986) remarked that research designs are invented to enable researchers to answer research questions as validly, objectively, accurately and economically as possible. Research plans are deliberately and specifically conceived and executed to bring empirical evidence to the problem in question. The ideas of different authors make it obvious that it is only the appropriate design which sifts the facts in the light of objectives and enables the researcher to achieve results. In the light of above description and keeping in view the various research designs discussed by Hopins (1976), Goldman (1978), Travers (1978), Tuckman (1978), Best (1983), suitable for different problems, the present investigator followed the design of the study.

Variables are the conditions or characteristics that the experimenter manipulates, controls, or observes. The independent variables are the conditions or characteristics that the experimenter manipulates or controls in his or her attempt to ascertain their relationship to observed phenomena. The dependent variables are the conditions or characteristics that appear, disappear, or change as the experimenter introduces, removes, or changes independent variables (Best, 1992).

In the present investigation one independent variable is taken with three dependent variables as follows:
Independent Variable

- Peace Education Curriculum Module

Dependent Variables:

- Values
- Adjustment
- Attitude

3.1.0 Objectives of the Study

While stating a research work it is essential to know why we are going to do the research work. Until we have clear cut aims/objectives, we would not be able to proceed on a right track. Aimlessness makes the work uninteresting and results in the wastage of time, energy and other material resources.

Objectives give us right track and hypotheses of the study guide us to proceed on the right track. So both are essential before starting the actual procedure of study.

Keeping in view the Statement of the Problem and by reviewing the Related Literature following objectives have been framed:

1. To study the impact of Peace Education Curriculum Module on Values of govt. secondary school students.
2. To study the impact of Peace Education Curriculum Module on Values of govt. urban secondary school students.
3. To study the impact of Peace Education Curriculum Module on Values of govt. rural secondary school students.
4. To study the impact of Peace Education Curriculum Module on Values of govt. urban boys secondary school students.
5. To study the impact of Peace Education Curriculum Module on Values of govt. urban girls secondary school students.
6. To study the impact of Peace Education Curriculum Module on Values of govt. rural boys secondary school students.

7. To study the impact of Peace Education Curriculum Module on Values of govt. rural girls secondary school students.

8. To study the impact of Peace Education Curriculum Module on Values of public secondary school students.

9. To study the impact of Peace Education Curriculum Module on Values of public urban secondary school students.

10. To study the impact of Peace Education Curriculum Module on Values of public rural secondary school students.

11. To study the impact of Peace Education Curriculum Module on Values of public urban boys secondary school students.

12. To study the impact of Peace Education Curriculum Module on Values of public urban girls secondary school students.

13. To study the impact of Peace Education Curriculum Module on Values of public rural boys secondary school students.

14. To study the impact of Peace Education Curriculum Module on Values of public rural girls secondary school students.

15. To study the impact of Peace Education Curriculum Module on Adjustment of govt. secondary school students.

16. To study the impact of Peace Education Curriculum Module on Adjustment of govt. urban secondary school students.

17. To study the impact of Peace Education Curriculum Module on Adjustment of govt. rural secondary school students.

18. To study the impact of Peace Education Curriculum Module on Adjustment of govt. urban boys secondary school students.

19. To study the impact of Peace Education Curriculum Module on Adjustment of govt. urban girls secondary school students.
20. To study the impact of Peace Education Curriculum Module on Adjustment of govt. rural boys secondary school students.

21. To study the impact of Peace Education Curriculum Module on Adjustment of govt. rural girls secondary school students.

22. To study the impact of Peace Education Curriculum Module on Adjustment of public secondary school students.

23. To study the impact of Peace Education Curriculum Module on Adjustment of public urban secondary school students.

24. To study the impact of Peace Education Curriculum Module on Adjustment of public rural secondary school students.

25. To study the impact of Peace Education Curriculum Module on Adjustment of public urban boys secondary school students.

26. To study the impact of Peace Education Curriculum Module on Adjustment of public urban girls secondary school students.

27. To study the impact of Peace Education Curriculum Module on Adjustment of public rural boys secondary school students.

28. To study the impact of Peace Education Curriculum Module on Adjustment of public rural girls secondary school students.

29. To study the impact of Peace Education Curriculum Module on Attitude towards peace of govt. secondary school students.

30. To study the impact of Peace Education Curriculum Module on Attitude towards peace of govt. urban secondary school students.

31. To study the impact of Peace Education Curriculum Module on Attitude towards peace of govt. rural secondary school students.

32. To study the impact of Peace Education Curriculum Module on Attitude towards peace of govt. urban boys secondary school students.

33. To study the impact of Peace Education Curriculum Module on Attitude towards peace of govt. urban girls secondary school students.
34. To study the impact of Peace Education Curriculum Module on Attitude towards peace of govt. rural boys secondary school students.
35. To study the impact of Peace Education Curriculum Module on Attitude towards peace of govt. rural girls secondary school students.
36. To study the impact of Peace Education Curriculum Module on Attitude towards peace of public secondary school students.
37. To study the impact of Peace Education Curriculum Module on Attitude towards peace of public urban secondary school students.
38. To study the impact of Peace Education Curriculum Module on Attitude towards peace of public rural secondary school students.
39. To study the impact of Peace Education Curriculum Module on Attitude towards peace of public urban boys secondary school students.
40. To study the impact of Peace Education Curriculum Module on Attitude towards peace of public urban girls secondary school students.
41. To study the impact of Peace Education Curriculum Module on Attitude towards peace of public rural boys secondary school students.
42. To study the impact of Peace Education Curriculum Module on Attitude towards peace of public rural girls secondary school students.

3.2.0 Hypotheses of the Study

The following hypotheses are formulated corresponding to the objectives of the Study:

1. There is no significant impact of Peace Education Curriculum Module on Values of govt. secondary school students.
2. There is no significant impact of Peace Education Curriculum Module on Values of govt. urban secondary school students.
3. There is no significant impact of Peace Education Curriculum Module on Values of govt. rural secondary school students.
4. There is no significant impact of Peace Education Curriculum Module on Values of govt. urban boys secondary school students.

5. There is no significant impact of Peace Education Curriculum Module on Values of govt. urban girls secondary school students.

6. There is no significant impact of Peace Education Curriculum Module on Values of govt. rural boys secondary school students.

7. There is no significant impact of Peace Education Curriculum Module on Values of govt. rural girls secondary school students.

8. There is no significant impact of Peace Education Curriculum Module on Values of Public secondary school students.

9. There is no significant impact of Peace Education Curriculum Module on Values of Public urban secondary school students.

10. There is no significant impact of Peace Education Curriculum Module on Values of Public rural secondary school students.

11. There is no significant impact of Peace Education Curriculum Module on Values of Public urban boys secondary school students.

12. There is no significant impact of Peace Education Curriculum Module on Values of Public urban girls secondary school students.

13. There is no significant impact of Peace Education Curriculum Module on Values of Public rural boys secondary school students.

14. There is no significant impact of Peace Education Curriculum Module on Values of Public rural girls secondary school students.

15. There is no significant impact of Peace Education Curriculum Module on Adjustment of govt. secondary school students.

16. There is no significant impact of Peace Education Curriculum Module on Adjustment of govt. urban secondary school students.

17. There is no significant impact of Peace Education Curriculum Module on Adjustment of govt. rural secondary school students.
18. There is no significant impact of Peace Education Curriculum Module on Adjustment of govt. urban boys secondary school students.

19. There is no significant impact of Peace Education Curriculum Module on Adjustment of govt. urban girls secondary school students.

20. There is no significant impact of Peace Education Curriculum Module on Adjustment of govt. rural boys secondary school students.

21. There is no significant impact of Peace Education Curriculum Module on Adjustment of govt. rural girls secondary school students.

22. There is no significant impact of Peace Education Curriculum Module on Adjustment of Public secondary school students.

23. There is no significant impact of Peace Education Curriculum Module on Adjustment of Public urban secondary school students.

24. There is no significant impact of Peace Education Curriculum Module on Adjustment of Public rural secondary school students.

25. There is no significant impact of Peace Education Curriculum Module on Adjustment of Public urban boys secondary school students.

26. There is no significant impact of Peace Education Curriculum Module on Adjustment of Public urban girls secondary school students.

27. There is no significant impact of Peace Education Curriculum Module on Adjustment of Public rural boys secondary school students.

28. There is no significant impact of Peace Education Curriculum Module on Adjustment of Public rural girls secondary school students.

29. There is no significant impact of Peace Education Curriculum Module on Attitude towards peace of govt. secondary school students.

30. There is no significant impact of Peace Education Curriculum Module on Attitude towards peace of govt. urban secondary school students.

31. There is no significant impact of Peace Education Curriculum Module on Attitude towards peace of govt. rural secondary school students.
32. There is no significant impact of Peace Education Curriculum Module on Attitude towards peace of govt. urban boys secondary school students.
33. There is no significant impact of Peace Education Curriculum Module on Attitude towards peace of govt. urban girls secondary school students.
34. There is no significant impact of Peace Education Curriculum Module on Attitude towards peace of govt. rural boys secondary school students.
35. There is no significant impact of Peace Education Curriculum Module on Attitude towards peace of govt. rural girls secondary school students.
36. There is no significant impact of Peace Education Curriculum Module on Attitude towards peace of Public secondary school students.
37. There is no significant impact of Peace Education Curriculum Module on Attitude towards peace of Public urban secondary school students.
38. There is no significant impact of Peace Education Curriculum Module on Attitude towards peace of Public rural secondary school students.
39. There is no significant impact of Peace Education Curriculum Module on Attitude towards peace of Public urban boys secondary school students.
40. There is no significant impact of Peace Education Curriculum Module on Attitude towards peace of Public urban girls secondary school students.
41. There is no significant impact of Peace Education Curriculum Module on Attitude towards peace of Public rural boys secondary school students.
42. There is no significant impact of Peace Education Curriculum Module on Attitude towards peace of Public rural girls secondary school students.

3.3.0 Research Design

In any type of research exercise data are gathered so that hypotheses formulated at the planning stage may be tested. Collection of factual information or data require adaptation of a systematic procedure, because as per Whittery (1950) “Data are the things we think with. They are the raw material of reflection until by
comparison, combination and evaluation they are stepped up to higher levels of generalization, where again they serve as basic material for further and higher thinking’. It also requires collection of relevant data adequate in quality and quantity and as reliable and valid as possible.”

The study is pre-experimental in design. One group Pre-Test and Post-Test design is used by the investigator. When an investigator uses this design he/she measures dependent variable before the independent variable is applied or withdrawn and takes its measurement again afterwards. The difference in the measurement of dependent variable, if any, is computed and is taken as the amount of change as a result of the application or withdrawing of independent or treatment variables (Best, 1992 P.125).

The study is carried out to find out the impact of peace education curriculum module which is developed by the Investigator herself on the Values, Adjustment and Attitude towards peace of Secondary School Students. The study is conducted on 160 subjects studying in VIIth class selected randomly from various govt. and public schools situated in urban and rural areas of Rohtak District.

For the purpose of collecting data the procedure was used in three different Phases as follows:

<table>
<thead>
<tr>
<th>Pre-Test</th>
<th>Treatment</th>
<th>Post-Test</th>
</tr>
</thead>
<tbody>
<tr>
<td>To study the Values Adjustment and Attitude towards peace of secondary school students</td>
<td>Teaching through the Peace Education Curriculum Module developed by the Investigator herself</td>
<td>To see the Impact of Peace Education Curriculum Module on Values, Adjustment, and Attitude towards peace of Secondary School Students.</td>
</tr>
</tbody>
</table>
First Phase:

In first phase a pre-test was conducted to study the Values, Adjustment and Attitude towards peace among secondary school students.

Second Phase:

To achieve the objectives of the present study, a Peace Education Curriculum Module was developed by the investigator herself from various subjects and topics of VII$^{th}$ Class syllabus of C.B.S.E. and Haryana Board both. Related topics from various subjects were selected. Stories of Panchtantra were also perused. Relevant stories carrying the message of Peace Education were well integrated with the course contents of VII$^{th}$ class thereby a booklet of Peace Education Curriculum Module was developed. The contents from this booklet were used in providing treatment to the subjects. One period of 40 minutes was set apart for this purpose in various schools. Since it was not possible for the investigator to give treatment to all the subjects, studying in various schools by herself, so in a few schools the teachers (one teacher in each school) were trained to give treatment in Peace Education Curriculum Module to the selected subjects. The treatment continued for three months in each school.

Third Phase:

In third phase a post test was conducted to see the impact of Peace Education Curriculum Module on Values, Adjustment and Attitude towards peace of Secondary School Students.

3.4.0 Delimitations of the Study

Due to limitations of time and resources the study was delimited to the following:

1. The study was confined to the Secondary School Students studying in the schools of Rohtak District.
2. Both male and female secondary school students were included in the study.
3. The study was conducted on 160 subjects studying in VIIth class selected from various govt. and public schools situated in urban and rural areas of Rohtak District.

4. The study was delimited to the following tools:

(i) Personal Value Questionnaire of Sherry and Verma for measuring values.

(ii) Adjustment Inventory for School Students (AISS) by Dr.A.K.P. Sinha and Dr.R.P. Singh for adjustment.

(iii) Attitude towards peace Scale developed by Prof.R.D.Mehta et. al. and adapted by the Investigator herself.

(iv) Peace Education Curriculum Module developed by the Investigator herself.

5. The present investigation was conducted on the following ten values:

A) Religious
B) Social
C) Democratic
D) Aesthetic
E) Economic
F) Knowledge
G) Hedonistic
H) Power
I) Family Prestige
J) Health

(A) Concepts (Key Terms)

Peace Education

Peace Education is an attempt to respond to problems of conflict and violence on scales ranging from the global and national to the local and personal. Peace
Education is a remedial measure to protect children from falling into the ways of violence in society. It aims at the total development of the child. It tries to inculcate higher human and social values in the mind of the child. In essence, it attempts to develop a set of behavioural skills necessary for peaceful living and peace building from which the whole of humanity will benefit.

Value

**According to Allport (1961),** “Value is a belief upon which a man acts by preference.”

**According to Sherry and Verma,** “Value is a concept of desirable ends, goals, ideals or modes of action, which makes human behaviour selective.”

Values refer to the preferences, lifestyles, beliefs and in normative framework meaning given to life. However, Values guide our behaviour and conduct, set goals and determine actions towards different situations, events and objects. Dr. Radha Krishnan has well stated the importance of values in imparting the education. He says, “Education is not limited to the imparting of information or the training in skills. It has to give the educated a proper sense of values. An important objective of education is to shape the personalities of its students and teachers.” For the present investigation the concept of values as given by Sherry and Verma has been taken.

Adjustment

Adjustment is the process by which living organism maintains a balance between its needs and the circumstances that influence the satisfaction of these needs.

The adaptability to environmental hazards goes on increasing as we are put in more complicated situations. Human beings, among other living beings, have the highest capacity to adapt to new situations. Human beings are able to adjust to the physical, social and psychological demands that arise from living interdependently with other individuals. But it is generally found that most of the people experience several types of adjustment problems in society.
Attitude

Attitude is a mental and neural state of readiness, organised through experience, exerting a directive or dynamic influence upon the individual’s response to all objects and situations with which it is related. Attitude fall within the realm of personality and are different from other personality constructs. Attitude is rational their referents are specific; they possess an evaluative function, and are overt responses serving as pore dispositions to respond overtly. They are measured indirectly; on the psychological scale attitude towards peace occupy a location between concept and trait.

Attitude differ from traits because attitude have a specific referent whereas traits are non-specific and general, attitude is revealed in generalized behaviour towards a specific object whereas trait is reflected towards a wide variety of objects or referent.

(B) Sampling Procedure

Population

The primary purpose of research is to discover principles that have universal application, but to study a whole population to arrive at generalizations would be impracticable, if not possible. Some populations are so large that their characteristics can not be measured; before the measurement could be completed, the populations would have changed. Imagine the difficulty of conducting a reading experiment with all Indian seventh-grade children as subjects. The study of a population of this size would require the services of thousands of researchers, the expenditure of millions of rupees, and hundreds of thousands of class hours. Fortunately, the process of sampling makes it possible to draw valid inferences or generalizations on the basis of careful observation of variables within a relatively small proposition of the population.

Sample

Generalizability of research findings depends upon sampling techniques. A sample, as the name implies, is a smaller representative of a large whole. Truly
representative sample lays the foundation of new theory or principles developed. Johnson (1961) defines, “A representative sample is one in which the measurements made on its units are equivalent to those which would be obtained by measuring all the elements of the population except for inaccuracy due to limited size of sample.”

A sample is a small proportion of a population selected for observation and analysis. By observing the characteristics of the sample, one can make certain inferences about the characteristics of the population from which it is drawn. Contrary to some popular opinion, samples are not selected haphazardly, they are chosen in a systematically random way, so that chance or the operation of probability can be utilized where every element in the population have an equal opportunity of being selected.

The population in the present study constitutes students studying in VII class in Secondary Schools of Rohtak Distt. of Haryana State. The sample of the present study was selected randomly from six schools of Rohtak district. In first stage the schools were selected randomly and then from each school the subjects were also selected on random basis. A sample of 160 students was selected from various govt. and public schools. To make the sample more representative school situated in rural areas were also included along with urban schools. Data were collected from the sample with the help of appropriate tools. A list of the schools and sample design is given below:

1. Govt. Girls Sr.Sec. School, Model Town, Rohtak
2. Govt. Boys Sr.Sec. School, Gandhi Camp, Rohtak
3. Vaish Public Sr.Sec. School, Rohtak
4. New Bright Sec.School Public School, Bohar, Rohtak
5. Govt. Boys Secondary School, Bohar, Rohtak
6. Govt.Girls Sr.Sec. School, Bohar, Rohtak
Sample Design

Total Students = 160

<table>
<thead>
<tr>
<th>Govt. School students</th>
<th>Public school students</th>
</tr>
</thead>
<tbody>
<tr>
<td>(80)</td>
<td>(80)</td>
</tr>
<tr>
<td>Urban School sts.</td>
<td>Rural School sts.</td>
</tr>
<tr>
<td>(40)</td>
<td>(40)</td>
</tr>
<tr>
<td>Boys</td>
<td>Girls</td>
</tr>
<tr>
<td>(20)</td>
<td>(20)</td>
</tr>
</tbody>
</table>

| Urban School sts.     | Rural School sts.      |
| (40)                  | (40)                   |
| Boys                  | Girls                  |
| (20)                  | (20)                   |

| Boys                  | Girls                  |
| (20)                  | (20)                   |

Figure 3.1

(C) Tools and Techniques

Success of research depends upon how objectively and how adequately the required and relevant data are collected and how scientifically the data gathering instruments are employed. Thus, reliable, valid and relevant data gathering instruments or tools may be used for better results. The procedure for the tools and techniques used in the study was divided into two main headings:
Selection of Tools

From the survey of related literature and the list of psychological tools, the researcher selected the following tools suitable for the present study:

1. Personal Value Questionnaire of Sherry and Verma for measuring values.
2. Adjustment Inventory for School Students (AISS) by Dr. A.K.P. Sinha and Dr. R.P. Singh for adjustment.
3. Attitude towards peace Scale developed by Prof. R.D. Mehta et. al. and adapted by the Investigator herself.
4. Peace Education Curriculum Module developed by the Investigator herself.

Description of the Tools Used

**Personal Value Questionnaire by Sherry and Verma**

This test is made on Indian population to assess the values. This test is reliable and valid. It is fit to assess the values of the sample under study. Questionnaire consists of 40 questions related to different values. Each value has an equal number of items and there are 12 items for each value. There is no time limit for this Manual: The test measures the following ten values in Indian context which has been selected on the basis of two main criteria: firstly, for their frequent mention in the literature and secondly, due to their relevance to the indigenous social milieu. The test is in Hindi. The description of different values measured by this test is given below:

<table>
<thead>
<tr>
<th>S.No.</th>
<th>Name of Values</th>
<th>Symbol</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Religious Value</td>
<td>क</td>
</tr>
<tr>
<td>2.</td>
<td>Social value</td>
<td>ग्र</td>
</tr>
<tr>
<td>3.</td>
<td>Democratic value</td>
<td>ग</td>
</tr>
<tr>
<td>4.</td>
<td>Aesthetic value</td>
<td>घ</td>
</tr>
</tbody>
</table>
5. Economic value
6. Knowledge value
7. Hedonistic value
8. Power value
9. Family prestige value
10. Health value

The definition of the values included in the PVQ are given below:

Religious Value

This value is defined in terms of faith in 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 behaviour expressive of this value are going on pilgrimage, living a simple life, having faith in the religious leaders, worshipping God and speaking the truth.

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 afflicted of their misery.

Democratic Value

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

Aesthetic Value

Aesthetic value is characterized by appreciation of beauty, from 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 surroundings, neatness and system in the arrangement of the things.

**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 peace towards the rich persons and the industrialists is favourable and he considers them helpful for the progress of the country.

**Knowledge Value**

This value stands for love of knowledge of theoretical principles of any activity, and love of discovery of truth. A man with knowledge value considers a knowledge of theoretical principles underlying a work essential for success in it. He values hard-work in studies, only if it helps develop ability to find out new facts and relationships, and aspires to be known as the seeker of knowledge. For him knowledge is virtue.

**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.

**Power Value**

Here the power value is defined as the conception of desirability of ruling over others and of leading others. The characteristics of a person of high power value are that he prefers a job where he gets opportunity to exercise authority over others, that he prefers to rule in a small place rather than serve in a big place, that the fear of law of the country rather than the fear of God deters him from having recourse to unapproved means for making money, and that he is deeply status-conscious and can even tell a lie for maintaining the prestige of his position.
Family Prestige Value

The family prestige value is the conception of the desirability of such items of behaviour, roles, functions and relationships as would become one’s family status. It implies respect for roles which are traditionally characteristic of different castes of the Indian society. It also implies respect for roles which are traditionally characteristic of different castes of the Indian society. It also implies the maintenance of the purity of family blood by avoiding inter-caste marriages. It is respect for the conservative outlook as enshrined in the traditional institution of family.

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 sorry if through some act of negligence he impairs his health, he considers good physical health essential for the development and use of his abilities.

Reliability of P.V.Q.

Reliability of a tool is generally defined as the ratio of true variance to the scores (Guilford). The error variance component of the scores generated by a perfectly reliable tool is zero and there is no error of measurement. Hence, reliability is one of the most important characteristic of a tool which denotes how accurately the tool measures whatever it measures.

Two indices of reliability of the PVQ were found out. Firstly, its reliability was determined by Hoyt’s method using analysis of variance which is as efficient as Kuder Richardson’s method but less cumbersome. Secondly, two test-retest reliabilities were determined one after an interval of 11 months and the other of 2 months. Thus, three sets of reliability coefficients for the PVQ are available at present and they are presented in Table 4 in the manual. They are given in the table below:
Table 3.1
Indices of Reliability of PVQ

<table>
<thead>
<tr>
<th>Sr. No.</th>
<th>Value</th>
<th>Test-Retest Reliabilities</th>
<th>Analysis variance Reliabilities</th>
<th>Standard error of Measurements</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Time gap 11 months (N=48)</td>
<td>Time gap 3 months (N=25)</td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>Religious Value</td>
<td>0.52</td>
<td>0.82</td>
<td>0.64</td>
</tr>
<tr>
<td>2</td>
<td>Social Value</td>
<td>0.45</td>
<td>0.66</td>
<td>0.47</td>
</tr>
<tr>
<td>3</td>
<td>Democratic Value</td>
<td>0.62</td>
<td>0.57</td>
<td>0.48</td>
</tr>
<tr>
<td>4</td>
<td>Aesthetic Value</td>
<td>0.47</td>
<td>0.65</td>
<td>0.56</td>
</tr>
<tr>
<td>5</td>
<td>Economic Value</td>
<td>0.67</td>
<td>0.70</td>
<td>0.70</td>
</tr>
<tr>
<td>6</td>
<td>Knowledge Value</td>
<td>0.59</td>
<td>0.63</td>
<td>0.50</td>
</tr>
<tr>
<td>7</td>
<td>Hedonistic Value</td>
<td>0.61</td>
<td>0.54</td>
<td>0.63</td>
</tr>
<tr>
<td>8</td>
<td>Power Value</td>
<td>0.55</td>
<td>0.53</td>
<td>0.60</td>
</tr>
<tr>
<td>9</td>
<td>Family Prestige Value</td>
<td>0.57</td>
<td>0.85</td>
<td>0.67</td>
</tr>
<tr>
<td>10</td>
<td>Health Value</td>
<td>0.53</td>
<td>0.64</td>
<td>0.52</td>
</tr>
</tbody>
</table>

It is clear from the table that the PVQ is a reliable tool to measure complex variables such as values.

Validity of PVQ

The validity of a tool is generally defined as its capacity to measure what it purposes to measure. The validity of PVQ was obtained by finding out the hierarchy of values of sample of 20 Psychology students of B.A. Part II in two ways. Firstly, they were administered PVQ and the hierarchy of their ten values was determined. Then they were asked to rank the ten values. The ten values were functionally defined in terms of the contents of the PVQ. The two hierarchies were correlated and the rank order coefficient of correlation of 0.64 was found. This correlation is
significant at 0.5 level (df=8). Thus it may be said that the PVQ is a fairly valid tool to determine the hierarchy of values of a group.

**Administration of PVQ**

PVQ was administered in a group of students selected randomly. These were got filled up under the standard instructions. Rapport was established with the students before administering the test. First the respondents were asked to fill up the personal data blank printed on the front page. They were clearly instructed not to fill up the cage which is meant for the investigator. When all the respondents filled up the blank, they were asked to turn over the page. The investigator read out the instructions printed on page 1 of the PVQ loudly and clearly. The mode of filling out the PVQ was explained very carefully. The respondents were permitted to turn over the page and record their responses. The respondents were invigilated while they were filling up the PVQ test so that they might not consult with one another but were free to solve their doubts with the investigator.

There is no time limit for filling out the questionnaire. Therefore, the respondents were permitted to return when they completed it. The administration of the PVQ ended with a thanks by the investigator. A total of 160 PVQ were got filled up by the investigator. The scripts were scored and thus obtained raw scores were converted into the scores in the manual. Thus, a total of 160 questionnaires were used for analysis and interpretation.

The respondents were very much co-operative. They generally asked two questions when they were requested to fill out the PVQ. Firstly, they asked the utility of filling it out. Secondly, they were keen to know the results. In reply to the first question they were told that the purpose of this tool is to find out value-system of the present day students. In reply to the second question they were told that the result will be reported in the form of a research findings. It was further clarified that the data so collected would be used for research purposes only and their scores in the tests would be kept confidential. The heads of the schools and the teachers taking the periods, when the P.V.Q. were administered,
were also very much considerate and because of their sincere cooperation, the investigator did not face any difficulty.

**Scoring of P.V.Q.**

The responses were scored as follows:

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

Some of the respondents left some questions unanswered. If the number of such questions was 4 or less, each item of the unanswered question was scored as 1. If their number was more than 4 the questionnaire was rejected.

In all the cases the scores were recorded besides the corresponding bracket and the total for each value was written at the foot of each page. The correctness of scoring and recording of the totals for all the values is checked by summing the total for all of them on each page separately. If the grand total was 24, the scoring was correct, provided that compensating efforts had not been committed.

Finally the entries in the cage at the foot of each page were brought to the bigger cage on the front page of P.V.Q.

The total of the each column was noted down in the bottom row. These totals denoted the scores of the respondents on the corresponding value given at the top of the column.

**Adjustment Inventory for School Students (AISS)**

The other independent variable in the present study is the Adjustment. For segregating the well adjusted secondary schools students from poorly adjusted students in three areas of adjustment i.e. Emotional, Social and Educational, the "Adjustment Inventory for School Students (AISS) by Dr.A.K.P. Sinha and Dr.R.P. Singh (1993) was used."
The Inventory consists of 60 test items i.e. 20 test items for each area of adjustment such as Emotional, Social and Educational. Studies conducted by Singh and Sen Gupta (1987) reported that this inventory is based on Kelley Technique (1939). According to them the inventory is more promising in studying and in bringing comprehensive picture of adjustment of Sr. Secondary School Students in emotional, social and educational areas. The inventory has another advantage that it can be used with Hindi knowing Sr. Secondary School Students easily.

The reliability of the AISS determined by (i) Split-half method, (ii) Test retest method, and (iii) K-R formula-20 is given in Table 3.2. This Table gives the reliability coefficients of the total test and of sub-tests by the different methods.

<table>
<thead>
<tr>
<th>Method Used</th>
<th>Emotional</th>
<th>Social</th>
<th>Educational</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Split-half</td>
<td>0.94</td>
<td>0.93</td>
<td>0.96</td>
<td>0.95</td>
</tr>
<tr>
<td>2. Test-retest</td>
<td>0.96</td>
<td>0.90</td>
<td>0.93</td>
<td>0.93</td>
</tr>
<tr>
<td>3. K.R. formula 20</td>
<td>0.92</td>
<td>0.92</td>
<td>0.96</td>
<td>0.94</td>
</tr>
</tbody>
</table>

In item-analysis validity coefficients were determined for each item by biserial correlation method and only such items were retained which yielded biserial correlation with both the criteria (i) total score and (ii) area score, significant level being .001.

Inter-correlations among the three areas of the inventory were calculated. The correlation matrix is being presented in Table 3.3.
Table 3.3
Correlation matrix of the three areas

<table>
<thead>
<tr>
<th>Areas</th>
<th>I</th>
<th>II</th>
<th>III</th>
</tr>
</thead>
<tbody>
<tr>
<td>I. Emotional</td>
<td>-.20</td>
<td>.20</td>
<td>.19</td>
</tr>
<tr>
<td>II. Social</td>
<td>.20</td>
<td>-</td>
<td>.24</td>
</tr>
<tr>
<td>III. Educa-</td>
<td>.19</td>
<td>.24</td>
<td>-</td>
</tr>
</tbody>
</table>

On the basis of obtained correlation/coefficients in the three areas given in Table 3.3, it can be said with confidence that AISS is a valid test.

For administering the inventory, test booklets containing the answer-sheets were distributed to the students. They were then asked to fill in information. All the necessary instructions were given. The inventory had no time limit. However, the students completed the test within 10 to 20 minutes.

For scoring the answer-sheets, the inventory was scored by hand only. For any answer indicate of adjustment, Zero was given, otherwise a score of one was awarded.

Table 3.4
Classification of Adjustment in terms of categories for Total Scores

<table>
<thead>
<tr>
<th>Category</th>
<th>Description</th>
<th>Range of Scores Male</th>
<th>Range of Scores Female</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>Excellent</td>
<td>5 &amp; below</td>
<td>5 &amp; below</td>
</tr>
<tr>
<td>B</td>
<td>Good</td>
<td>6-12</td>
<td>6-14</td>
</tr>
<tr>
<td>C</td>
<td>Average</td>
<td>13-12</td>
<td>15-22</td>
</tr>
<tr>
<td>D</td>
<td>Unsatisfactory</td>
<td>22-30</td>
<td>23-21</td>
</tr>
<tr>
<td>E</td>
<td>Very unsatisfactory</td>
<td>31 and above</td>
<td>32 and above</td>
</tr>
</tbody>
</table>
### Table 3.5

**Classification of adjustment in terms of categories in the three areas**

<table>
<thead>
<tr>
<th>Area</th>
<th>Category</th>
<th>Description</th>
<th>Male</th>
<th>Female</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Emotional</strong></td>
<td>A</td>
<td>Excellent</td>
<td>1 &amp; below</td>
<td>1 &amp; below</td>
</tr>
<tr>
<td></td>
<td>B</td>
<td>Good</td>
<td>2-4</td>
<td>2-5</td>
</tr>
<tr>
<td></td>
<td>C</td>
<td>Average</td>
<td>5-7</td>
<td>6-7</td>
</tr>
<tr>
<td></td>
<td>D</td>
<td>Unsatisfactory</td>
<td>8-10</td>
<td>8-10</td>
</tr>
<tr>
<td></td>
<td>E</td>
<td>Very Unsatisfactory</td>
<td>above</td>
<td>above</td>
</tr>
<tr>
<td><strong>Social</strong></td>
<td>A</td>
<td>Excellent</td>
<td>2 &amp; below</td>
<td>2 &amp; below</td>
</tr>
<tr>
<td></td>
<td>B</td>
<td>Good</td>
<td>3-4</td>
<td>3-5</td>
</tr>
<tr>
<td></td>
<td>C</td>
<td>Average</td>
<td>5-7</td>
<td>6-7</td>
</tr>
<tr>
<td></td>
<td>D</td>
<td>Unsatisfactory</td>
<td>8-10</td>
<td>8-10</td>
</tr>
<tr>
<td></td>
<td>E</td>
<td>Very unsatisfactory</td>
<td>11 &amp; above</td>
<td>11 &amp; above</td>
</tr>
<tr>
<td><strong>Educational</strong></td>
<td>A</td>
<td>Excellent</td>
<td>2 &amp; below</td>
<td>2 &amp; below</td>
</tr>
<tr>
<td></td>
<td>B</td>
<td>Good</td>
<td>3-4</td>
<td>3-4</td>
</tr>
<tr>
<td></td>
<td>C</td>
<td>Average</td>
<td>5-7</td>
<td>5-7</td>
</tr>
<tr>
<td></td>
<td>D</td>
<td>Unsatisfactory</td>
<td>8-10</td>
<td>8-11</td>
</tr>
<tr>
<td></td>
<td>E</td>
<td>Very Unsatisfactory</td>
<td>11 &amp; above</td>
<td>11 &amp; above</td>
</tr>
</tbody>
</table>

---

**Attitude Scale Towards Peace**

Another dependent variable in the present study is Attitude towards peace. To study the attitude towards peace of secondary school students, Attitude Scale Towards Peace developed by Prof. R.D.Mehta et.al was selected (A pilot project sponsored
jointly by NCTE and UNESCO 2005). Since the sample included students from govt. and public schools as well, the attitude scale towards peace was adapted in Hindi by the investigator herself in consultation with the Supervisor. For adaptation the original test was administered to 30 students. After a gap of 3 weeks the Hindi version was administered to the same sample. Correlation of the scores of both the tests was calculated which was found to be .87 which is quite significant.

**Description of the scale**

The assessment of non-cognitive aspect was delimited to the measurement of attitude towards peace only. The team developed a pool of items and after much deliberations amongst the five experts: 40 items could be selected of which 17 items were negative. Further, the assessment of the candidates on the positive and negative items separately has revealed a correlation of +.52 which can be assumed to be the strength of original scale.

**Scoring :**

Scoring of Attitude towards peace Scale is given below:

<table>
<thead>
<tr>
<th>Positive Items</th>
<th>Negative Items</th>
</tr>
</thead>
<tbody>
<tr>
<td>5  StrONGLy agree</td>
<td>1 Strongly Disagree</td>
</tr>
<tr>
<td>4  Agree</td>
<td>2</td>
</tr>
<tr>
<td>3  Undecided</td>
<td>3</td>
</tr>
<tr>
<td>2  Disagree</td>
<td>4</td>
</tr>
<tr>
<td>1  Strongly Disagree</td>
<td>5</td>
</tr>
</tbody>
</table>

For scoring the items the above criteria was used .The total items were divided into two groups one consisting of positive items and other consisting of negative items. Total positive items are 23 and Total negative items are 17.

As per the criteria mentioned above each positive item was assigned a weight ranging from 5 (strongly agree) to 1 (strongly disagree) and for negative items range of weights is reversed i.e. from 1 (strongly agree) to 5 (strongly disagree). The attitude towards peace score of a subject is the sum total of item scores which rang from 40 -
200 with the higher score indicating the more favourable attitude towards peace education.

**Peace Education Curriculum Module**

The Peace Education Curriculum Module was prepared as discussed earlier at Page No.172. The outline of the said curriculum module is presented as under:

**Outline of the Curriculum Module**

1. **Subject Content:**
   
   (i) Social Science
   
   • Civics
   • Geography
   • History
   
   (ii) Hindi
   
   • पंचवट की कौशिकी व कविताएं
   
   (iii) Religious Education
   
   (iv) Moral Value
   
   (v) Physical Education including game and exercises
   
   (vi) Art - Drawing, Folk Dance and Music – folk songs
   
   (vii) Women Education - Population Education
   
   (viii) Sanskrit

2. **Skills and Teaching Methods**
   
   • Problem solving
   
   • Sharing and Co-operation
   
   • Enhancing the self-esteem of oneself and others
   
   • Understanding the links between the personal, local and global
   
   • Positive emotional expression
   
   • Ability to Act on ideas
• Active learning/participating methods
• Self expression
• Story telling and response to stories
• Project work
• Exchange with Children from other cultural using their own medium

3. Total Curriculum from few subjects:

(i) Civics
• Social justice, Equity, Non-violence, Fundamental Rights and duties.
  International understanding.

(ii) Geography
• Environment and Understanding of our place in the Eco-system
  Pollution, Natural resources, Global Warming etc.

(iii) History
• Causes and Effects of Fights/Wars

(iv) Hindi
• Stories of Prem Chand/Panchtantrs. Poems

(v) Religious Education/Moral Education
• Inculcating Moral Values through Education (i) Ramayana. Geeta etc.

(vi) Sanskrit
• Niti Shlokas. Sadachar etc.

(vii) Physical Education
• Yoga, games and sports, exercises

(viii) Arts : Drawing to convey message for peace
  Dance: Folk Dance through Music
  Songs : Folk songs

(ix) Population Education, Women Education, NCC and NSS participation
4. Involvement of Staff:
   - Lectures by Educationists, Psychologists and Social activities
   - Guidance and Counselling
   - Educational awareness Programmes
   - Use of Audio-visual aids related to Peace and War
   - Assembly

5. Co-Curricular Activities
Dramatisation, Poster making, Debate, Seminar, Workshops, Group discussions.

3.5.0 Statistical Techniques Used

Keeping in view the objectives as well as design of the study, Means, Standard Deviations and ‘t’ values were computed for analysis of results.