CHAPTER - III

METHOD AND PROCEDURE

3.1 DESIGN

The present study was completed in two phases. Firstly, preparation and standardization of Moral Judgement Test and preparation of Student Information Proforma was completed.

In the second phase of the study, bi-variate and multi-variate correlational analysis involving the use of product moment and multiple correlations, factor analysis and regression equations were employed. In order to find out the nature and extent of relationship of personal and educational environmental variables under study i.e. five measures of school characteristics index, SCI<sub>Total</sub>, SES, six measures of family relationship inventory, FRI<sub>Total</sub>, intelligence, mother moral dilemma, father moral dilemma, nine measures of school organisational climate description, open school climate, teacher moral dilemma with the score of moral judgement test, product moment correlations were worked out. Further, factor-analysis and rotation of factors were employed in order to identify constellation of factors underlying the personal and educational environmental variables i.e. five measures of school characteristics index, SCI<sub>Total</sub>, SES, six measures of family relationship inventory, FRI<sub>Total</sub>,
intelligence, mother moral dilemma, father moral dilemma, 
nine measures of school organisational climate description, 
open school climate and teacher moral dilemma with the 
moral judgement of the students. Step-up regression equations 
were set up for determining variance contributed by predictor 
variables namely five measures of school characteristics 
index, SCI\(_{\text{Total}}\), SES, six measures of family relationship 
inventory, FRI\(_{\text{Total}}\), intelligence, mother moral dilemma, 
father moral dilemma, nine measures of school organisational 
climate description, open school climate and teacher moral 
dilemma towards the criterion variable of moral judgement 
of the students separately and indifferent combinations both 
for urban and rural samples.

3.2 SAMPLE:

Keeping in view the design of the study, different 
sets of samples were taken. For the standardization of the 
Moral Judgement Test, the preliminary try out of the Moral 
Judgement Test was conducted over a sample of eight senior 
secondary students. Four boys and equal number of girls were 
randomly drawn from four institutions.

For conducting final try out of the Moral Judgement 
Test, a sample of 250 senior secondary students were drawn 
from ten institutions including those institutions already
taken for the first try out. The description of sample for standardization of MJT has been given in Chapter IV.

Since it was not possible to cover the entire geographical area of Punjab, it was decided to randomly select four districts of Punjab State, namely Ferozepur, Faridkot, Bhatinda and Patiala.

Thus second phase of the proposed study favoured for the selection of sample on the basis of multi-staged randomization of clusters. The class-room was taken as the unit of sampling. A total sample of 416 senior secondary boys and girls students comprising urban (N=245) and rural (N=171) population was taken on the basis of multi-staged stratified randomization technique but the responses of 41 students (urban, N=20 and rural, N=21) were deleted due to their incomplete responses on one or the other test. Thus final sample comprised of 375 students (urban, N=225, rural, N=150).

For the wider applicability of results, urban and rural schools and colleges, private schools, government schools, private colleges, government colleges both co-educational as well as for boys and girls were included in the sample. The selection of schools and colleges from each district was done at random. Detail of the sample for the final study has been given in table 3.1.
Table 3.1
Table showing detail of the sample for the final study (N=375)

<table>
<thead>
<tr>
<th>Sr. No.</th>
<th>Name of the School/College</th>
<th>No. of students</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Urban</td>
</tr>
<tr>
<td>1</td>
<td>Govt. Senior Secondary School, Abohar</td>
<td>18</td>
</tr>
<tr>
<td>2</td>
<td>M.R. Govt. College, Fazilka</td>
<td>37</td>
</tr>
<tr>
<td>3</td>
<td>D.A.V. Sr. Sec. School, Abohar</td>
<td>12</td>
</tr>
<tr>
<td>4</td>
<td>G.D. Sr. Sec. School, Abohar</td>
<td>13</td>
</tr>
<tr>
<td>5</td>
<td>D.A.V. College, Abohar</td>
<td>16</td>
</tr>
<tr>
<td>6</td>
<td>G.A.M. College, Abohar</td>
<td>23</td>
</tr>
<tr>
<td>7</td>
<td>Khalsa Sr. Sec. School, Muktsar</td>
<td>22</td>
</tr>
<tr>
<td>8</td>
<td>Govt. College, Muktsar</td>
<td>18</td>
</tr>
<tr>
<td>9</td>
<td>Guru Teg Bahadur Sr. Sec. School, Malout</td>
<td>8</td>
</tr>
<tr>
<td>10</td>
<td>D.A.V. College, Malout</td>
<td>8</td>
</tr>
<tr>
<td>11</td>
<td>M.M.D.A.V. Mahila College, Giddarbaha</td>
<td>13</td>
</tr>
<tr>
<td>12</td>
<td>Govt. Rajindra College, Bhatinda</td>
<td>5</td>
</tr>
<tr>
<td>13</td>
<td>D.A.V. College, Bhatinda</td>
<td>12</td>
</tr>
<tr>
<td>14</td>
<td>Govt. Girls Model Sr. Sec. School, Patiala</td>
<td>13</td>
</tr>
<tr>
<td>15</td>
<td>Govt. College for Women, Patiala</td>
<td>7</td>
</tr>
<tr>
<td>16</td>
<td>Govt. Sr. Sec. School, Jandawala, Bhimeshah</td>
<td>-</td>
</tr>
<tr>
<td>17</td>
<td>Govt. Sr. Sec. School, Roopana</td>
<td>-</td>
</tr>
<tr>
<td>18</td>
<td>Govt. Adarsh Sr. Sec. School, Sheranwala Bhangawala</td>
<td>-</td>
</tr>
<tr>
<td>19</td>
<td>Govt. Sr. Sec. School, Phaphra Bhai Ke</td>
<td>-</td>
</tr>
<tr>
<td>20</td>
<td>Govt. Sr. Sec. School, Ghanaur</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td><strong>Total</strong></td>
<td>225</td>
</tr>
</tbody>
</table>
The data of parents, for the test on moral dilemmas, formed another distinct unit of the sample. The parents of 375 students involved in the final study were conducted personally at home.

100 teachers were requested to fill up Teacher Information Proforma, the Test of Moral Dilemmas and School Organizational Climate Description Questionnaire. Only those teachers, who were teaching senior secondary classes and whose students were taken in the final sample, were contacted in their schools and colleges.

3.3 TOOLS

The effort was made to select appropriate standardized tests. The selection of tools was guided by (i) their suitability to the sample and (ii) their meeting with the rigorous standards of reliability and validity as psychometric instruments. Following tools were used for data collection:

1. Family Relation Inventory (FRI) (By Sherry and Sinha, 1963) to measure the parental attitudes towards children as perceived by children themselves.


4. School Organisational Climate Description Questionnaire (SOCDQ) (By Kaur, 1974).
5. Test of Moral Dilemmas (By Bhargava, 1986) for parents and teachers.

6. Teachers’ Information Proforma (By Bhargava, 1986).

7. Moral Judgement Test (This test was prepared and standardized by the investigator herself, the detailed description of which has been given in Chapter IV).

8. Students’ Information Proforma (prepared by the investigator herself. The detailed description of the proforma has been given in Chapter IV).


3.3.1 FAMILY RELATION INVENTORY (FRI) (Sherry and Sinha, 1968)

Family Relation Inventory prepared by Sherry and Sinha (1968) in the Indian situation was devised on the basis of Brunken and Crite’s ‘Family Relationship Inventory’. It measures the parental attitudes towards children as perceived by children themselves.

The choice in favour of this tool was guided by considerations of its research orientedness, richness and variety of items, ease of administration and suitability of the test for the present study. It discriminates the individual who feel emotionally accepted, overprotected or rejected by their parents. It is intended for use with Hindi speaking children in Indian situation.
The inventory consists of 150 items classified into three patterns of mother and father separately. The number of items measuring each pattern is as follows:

<table>
<thead>
<tr>
<th>Patterns</th>
<th>Acceptance</th>
<th>Concentration</th>
<th>Avoidance</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>$F(FA)$</td>
<td>$M(MA)$</td>
<td>Total</td>
</tr>
<tr>
<td></td>
<td>$F(PC)$</td>
<td>$M(MC)$</td>
<td>Total</td>
</tr>
<tr>
<td></td>
<td>$F(FA')$</td>
<td>$M(MA')$</td>
<td>Total</td>
</tr>
<tr>
<td>No. of items</td>
<td>25</td>
<td>27</td>
<td>52</td>
</tr>
</tbody>
</table>

$F =$ Father  
$M =$ Mother

It is desirable to explain the three items used in the inventory. 'Acceptance' means that the parents consider the child as a full-fledged member of the family who needs a certain degree of independence and who has the capacity to assume responsibility. Parents having acceptance attitude towards their children, neither concentrate their attention nor overlook their children. 'Concentration' refers to attitude of parents who devote a disproportionate amount of their time and energy to the direction and control of their children. They overprotect them through restrictions upon their efforts to explore the environment. 'Avoidance' characterizes the disposition of their parents who either neglect or reject the child. They withdraw when their child approaches them for affection and love. They manifest no positive interest in the child or his activities.
### Intercorrelation of FBI scales for three samples, N=200

<table>
<thead>
<tr>
<th>Scale</th>
<th>FA</th>
<th>MC</th>
<th>FC</th>
<th>MV</th>
<th>FV</th>
<th>TPA</th>
<th>TPC</th>
<th>TPV</th>
</tr>
</thead>
<tbody>
<tr>
<td>MA</td>
<td>.44*</td>
<td>.17</td>
<td>.16</td>
<td>-.54*</td>
<td>-.64*</td>
<td>.64</td>
<td>.12</td>
<td>-.74*</td>
</tr>
<tr>
<td>FA</td>
<td>.16</td>
<td>.21</td>
<td>.68*</td>
<td>-.74*</td>
<td>.59</td>
<td>.05</td>
<td>-.71*</td>
<td></td>
</tr>
<tr>
<td>MC</td>
<td>.34</td>
<td>-.15</td>
<td>.25**</td>
<td>.19</td>
<td>.32*</td>
<td>-.84*</td>
<td></td>
<td></td>
</tr>
<tr>
<td>FC</td>
<td>.17</td>
<td>.30*</td>
<td>.32*</td>
<td>.34**</td>
<td>.06</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>MAV</td>
<td>.54**</td>
<td>.44*</td>
<td>.07</td>
<td>.53*</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>MAV</td>
<td>.62*</td>
<td>.13</td>
<td>.62*</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>TPA</td>
<td>.37*</td>
<td>.25</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>TPC</td>
<td></td>
<td></td>
<td>.17</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>TPAV</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

* Significant at .05 level
** Significant at .01 level.

It appears from above that the two scales which are supposed to be diametrically opposed to each other are in inverse relationship. Fairly significant negative 'r' value between concentration and other scales have been obtained. These results not only agree with Roes (1957) hypothesis that the three types of parental attitudes are associated with the development of the child but also correspond to Burnken and Crite's (1964) result, where these parental attitudes were found to be associated with the development of the child.

Family Relation Inventory (FRI) has been appended with the thesis (Appendix-I).
Each item has two forced choice alternative answers in the form of true and false. For every true response one mark is to be given and the marks obtained by respondents are summed up areawise. The manual shows the area and corresponding items belonging to that area for scoring purpose. There is no time limit. A high score in each area of the inventory indicates a high degree of one's feeling of his being accepted, concentrated and avoided by his/her parents.

As reported in the manual, the test-retest reliability of this inventory was determined on a sample of 100 students to whom the inventory was administered twice with an intervening period of three months. The means and standard deviations of both test and retest situations, the critical ratios and coefficient of stability are given as follows:
The r values between the two situations were moderately high. The means of the scores sample for the various scales changed very little over the test-retest period. With regard to the validity of the inventory attempts were made by the author (Sinha, 1963) to determine the validity of each item on the basis of content analysis. However, it was further found by inter-correlation of scales. The correlation between three scales of the inventory was worked out to find out the extent of internal consistency. The 'r' values were computed between three scales separately for mother, father and the whole group and are given below:

<table>
<thead>
<tr>
<th>Variable</th>
<th>Test Mean</th>
<th>SD</th>
<th>Re-test Mean</th>
<th>SD</th>
<th>Coefficient of Stability</th>
<th>Critical Ratio</th>
</tr>
</thead>
<tbody>
<tr>
<td>NA</td>
<td>16.00</td>
<td>2.46</td>
<td>19.79</td>
<td>1.63</td>
<td>.54*</td>
<td>3.88</td>
</tr>
<tr>
<td>FA</td>
<td>17.93</td>
<td>2.70</td>
<td>17.90</td>
<td>2.99</td>
<td>.42*</td>
<td>.55</td>
</tr>
<tr>
<td>MC</td>
<td>13.72</td>
<td>2.12</td>
<td>14.20</td>
<td>1.43</td>
<td>.43*</td>
<td>.30</td>
</tr>
<tr>
<td>FC</td>
<td>11.63</td>
<td>1.36</td>
<td>11.86</td>
<td>1.76</td>
<td>.51*</td>
<td>.27</td>
</tr>
<tr>
<td>MAV</td>
<td>10.13</td>
<td>4.18</td>
<td>9.53</td>
<td>2.38</td>
<td>.72*</td>
<td>.11</td>
</tr>
<tr>
<td>FAV</td>
<td>9.54</td>
<td>4.87</td>
<td>3.86</td>
<td>3.03</td>
<td>.31*</td>
<td>.10</td>
</tr>
<tr>
<td>Total PA</td>
<td>37.30</td>
<td>4.17</td>
<td>37.28</td>
<td>4.94</td>
<td>.56*</td>
<td>.99</td>
</tr>
<tr>
<td>Total PC</td>
<td>25.15</td>
<td>2.63</td>
<td>25.55</td>
<td>3.61</td>
<td>.44*</td>
<td>.55</td>
</tr>
<tr>
<td>Total PA</td>
<td>19.90</td>
<td>8.50</td>
<td>18.52</td>
<td>7.41</td>
<td>.85*</td>
<td>1.01</td>
</tr>
</tbody>
</table>

* Significant at .01 level.
3.3.2 SOCIO-ECONOMIC STATUS SCALE (SES) (Udai Pareek and Trivedi, 1961):

The choice for this scale was made due to its wide application over Indian population and fairly reliable results are claimed by the authors of the scale. The Socio-Economic Status Scale consists of nine main items. The scale calls for information about a urban and rural family on important aspects of socio-economic status of a family - the occupation, education and social participation of the head of the family, the caste of the family, their land, house and material possessions and the general nature of the family.

There is another basis of the arrangement of the items in the scale. The first seven items are of graded scale type. This means that each item is scaled from the lowest to the highest - each sub-item representing a point on the scale. This also means that only one of the sub-items is to be checked for a particular respondent under each of the first seven items. On the other hand, items 8 and 9 are additive in nature. In item 8 all the five sub-items are to be checked and scored. In item 9 either of the sub-items in both (a) and (b) has to be checked, in addition to (c) - total check being three.

The time taken in collecting information on the items of the scale was found to range from 5 minutes to 15 minutes.
Reliability of the scale was found by test-retest method. The correlation of the scale scores taken at two different times with a short interval (i.e., nearly two months) on 25 persons selected at random from different villages indicated quite a high coefficient of stability (0.87).

Similarly, two persons quite independent of each other interviewed a sample of 25 families selected at random. The rank-order correlation tests were applied to find out whether the differences in scores as between observers were significant. In case of the rank order correlation, the value of 'r' obtained was very high (0.53).

For finding validity of the scale, the relationship of the scale scores with identifiable groups (known groups) was used as the criterion for this purpose.

A random sample of 30 persons were requested to name persons of very high and very low socio-economic status. In all 14 persons with high socio-economic status and 23 with low socio-economic status were named.

Out of 14 persons judged as belonging to high status group, 12 persons scored in the first (upper class) category on the scale and 2 persons were scored in the next category i.e., "upper middle". Similarly out of 23 persons judged as belonging to low status group 22 persons were scored in the 'lower class' on the scale and person in the 'lower-middle class' (Categories 4,5). These findings show very high validity of
the scale, demonstrating its sensitivity to discriminate between upper and lower classes.

Socio-economic status scale (SES) has been appended with the thesis (Appendix-II).

3.3.3 SCHOOL CHARACTERISTICS INDEX (SCI) (Hindi adoption by Gakhar, 1981):

This tool was selected for measuring school characteristics as it provides a fairly reliable and valid measure of school characteristics and has been standardized on Indian population. It is a group test and responses on it can be objectively scored. This scale has been used in Hindi speaking areas in the present study by Gakhar (1981) and Bhargava (1986).

This SCI comprises of 87 items in all, which are classified into five categories:

<table>
<thead>
<tr>
<th>Name of the Category</th>
<th>Description</th>
<th>No. of items</th>
</tr>
</thead>
<tbody>
<tr>
<td>I</td>
<td>Items related to text books and evaluation</td>
<td>14</td>
</tr>
<tr>
<td>II</td>
<td>Items related to teaching methods</td>
<td>20</td>
</tr>
<tr>
<td>III</td>
<td>Items related to school rules</td>
<td>20</td>
</tr>
<tr>
<td>IV</td>
<td>Items related to co-curricular activities</td>
<td>20</td>
</tr>
<tr>
<td>V</td>
<td>Items related to school traditions</td>
<td>13</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td></td>
<td><strong>87</strong></td>
</tr>
</tbody>
</table>

The students are required to record their responses on the SCI booklet by encircling 'Yes' or 'No', written against
each item. The items on the SCI are scored as '1' or '0' depending upon whether the item is a characteristic of the institution or not. All the items are scored with the help of scoring key especially prepared for this purpose. Scores for each student are recorded category-wise with a view to assess the institutional press in each sub-area. The total score on each category is obtained by summatting all the positive responses on that category.

The internal consistency reliabilities of the five categories of SCI ranged from .66 to .79. The factorial validity of the SCI was established by factor analysis, analysing the scores on all the five categories. SCI category I, II, III, IV and V had the varimax loadings of .330, .636, .613, .870 and .747 respectively. SCI C₁ had relatively low loadings on this factor. On the original factor all the five categories had significant loadings. On the calculations, drawn from the original as well as varimax rotated factor matrix (according to the author), it was evident that a pure factor of SCI had been participated which established the factorial validity of SCI.

School Characteristics Index (SCI) has been appended with the thesis (Appendix-III).

3.3.4 SCHOOL ORGANISATIONAL CLIMATE DESCRIPTION QUESTIONNAIRE (SOCQ) (Kaur, 1974):

Recognizing that schools differ markedly - not merely
in their architecture or in such obvious characteristics as the ethnic composition of their study populations, as also experienced principals are quick to sense or to 'feel' the individuality of a school - this individuality is called the 'atmosphere' of a school. Other popular labels include the tone of the school's climate, or the school's personality.

The questionnaire was divided into sixteen variables; the first eight variables describing the organizational climate, four of which describe selected facets of the teacher behaviour as it is perceived by the teachers and remaining four deal with the principal's behaviour - again it is perceived by the teachers and the rest eight referring to moral. The organizational variables are as under:

1. Disengagement
2. Hindrance
3. Organisation
4. Intimacy
5. Aloofness
6. Production
7. Thrust
8. Consideration

The variables relating to morale are mentioned here under:

1. Teachers' relation
2. Teachers' relation with students, parents and community
3. Esprit
The above sixteen variables described as follows:

**Teacher's Behaviour:**

- **Disengagement:** refers to the teacher's tendency to be "not with it". This dimension describes a group which is "going through the motions", a group that is 'not in gear' with respect to the task at hand. In short, the questionnaire focuses upon the teacher's behaviour in a task-oriented situation.

- **Hindrance:** refers to the teacher's feeling that the principal burdens them with routine duties, committee demands and other requirements which the teacher construe as unnecessary busy work. The teachers perceive that the principal is hindering rather than facilitating their work.

- **Organisation:** refers to 'morale'. The teachers feel that their social needs are being satisfied, and that they are, at the same time, enjoying a sense of accomplishment in their job.

- **Intimacy:** refers to the teachers' enjoyment of friendly social relations with each other. This dimension describes a social-needs satisfaction which is not necessarily
associated with task-accomplishment.

Principal's Behaviour:

**Aloofness:** refers to behaviour by the principal which is characterized as formal and impersonal. He 'goes by the book' and prefers to be guided by rules and policies rather than deal with the teachers in an informal, face-to-face situation. His behaviour, in brief, is universalistic rather than idiosyncratic. To maintain this style, he keeps himself at least, 'emotionally' - at a distance from his staff.

**Production Emphasis:** refers to behaviour by the principal which is characterized by close supervision of the staff. He is highly directive and plays the role of a 'straw boss'. His commendation tends to go in only one direction, and he is not sensitive to feedback from the staff.

**Thrust:** refers to behaviour by the principal which is characterized by his evident effort in 'trying to move the organisation'. 'Thrust' behaviour is marked not by close supervision, but by the principal's attempt to motivate the teachers through the example which he personally sets. Apparently, because he does not ask the teachers to give of themselves any more than he willingly gives of himself, his behaviour, through starkly task-oriented, is nonetheless viewed favourably by the teachers.

**Consideration:** refers to behaviour of the principal which is characterized by an inclination to treat the teachers
'humanly' to try to do a little something extra for them in human terms.

**Some Variables of Morale:**

**Teachers relations:** refers to team spirit mutual confidence and understanding, identification, integration and co-operation, well-feeling and group belongingness, enthusiasm, opportunities to use one's ideas and to learn and improve one's job.

**Teacher and the Community:** refers to teachers' relation with the students, the parents and the community; knowledge of the purpose of the organisation and its goals, maintaining the health of the organisation.

**Esprit:** refers to the degree of participation, feelings of loyalty, dedication and devotion to duty, job-satisfaction on one hand and refers to recognition of the rights of participants, their right of criticism of the organisation, provision for incentives, titles, honours and awards.

**Security of Service:** postulates recognition of grievance process machinery; provision for right to appeal in case of disciplinary action; opportunities to defend in case of demotion and dismissal.

**Service Conditions:** refers to emoluments and other facilities, work performance, maintaining professional standards and ethics, and integrity of administration.
Working conditions: include measure for welfare; good home and working conditions, satisfactory environments; easy work.

Leadership: refers to stimulating, administrative and development leadership, participation in decision-making and policy formulation, prestige and honour.

Placement: refers to independent personal machinery for recruitment, proper promotion and transfer system, opportunities for development and improvement.

All the questions which were included in the School Organisational Climate Description Questionnaire were based on the following factors:

1. Attitude of teachers towards the school;
2. Environmental factors;
3. Principal's behaviour and teachers' behaviour;
4. Social, economic and cultural factors.

The questionnaire contained eighty nine questions and sixteen variables. The teacher had to place marking on five point scale and thus the responses may be in two dimensions: positive and negative.

School Organisational Climate Description Questionnaire (SOCDQ) has been appended with the thesis (Appendix IV).

3.3.5 TEST OF MORAL DILEMMAS (Bhargava, 1986):

Test of Moral Dilemmas was used because it was found to give the assessment of the ability of parents and teachers to
make decisions, when placed in problem situations. It has wide applicability and is adapted to Indian situations. It has been found easy to administer to individual. The test was considered appropriate as it gives maximum information regarding the ability of the parents and teachers to make decisions when placed in problem situations in the shortest possible time, about the various aspects of moral dilemmas.

The test comprises twenty-four problem situations involving such traits as honesty, loyalty, responsibility, punishment, equality of fairness. Every trait had four items except for punishment and equality and fairness each of which had six items. The test consists of a problem situations where the individual had to take moral decisions with regard to law and social order, social values, parent-child relationship and teacher-child relationship. The individual had to use logical reasoning and evaluate the moral problem by taking an appropriate decision. Individual takes 30-35 minutes in completing the test.

For each problem situation, three alternatives are suggested: one of which indicates positive, one negative and the third indicates a doubtful attitude. The responses indicating positive, doubtful and negative attitude are arranged at random, so that the individual does not know the pattern of responses. Positive, doubtful and negative response
categories are given the weightage of 2, 1, 0 respectively. For each subject the total score would be the summation of the scores for each item. This would be the person's index of moral maturity. The higher is the score, the higher a person's ability to deal with moral dilemmas and the lower is the score, the lower would be the ability of the individual to deal with moral dilemmas.

Test-retest reliability was found over a sample of 100 subjects (50 parents, 50 teachers). The second administration of the test was given after an intervening period of one month. The test-retest reliability was found to be .94.

Besides the content validity, which was established while developing the tool, through the consensus of experts on the content of the items in the test, the validity of the test was established by item validation.

Test of Moral Dilemmas has been appended with the thesis (Appendix V).

3.3.6 TEACHERS' INFORMATION PROFORMA (Bhargava, 1986)

In order to collect the information from those teachers who were teaching most of the subjects to class XI and XII (+1 and +2 stage) and whose students have been taken into final sample, Teachers' Information Proforma was used. It sought information on seven items concerning teachers' qualification,
moral instruction in the class, about school/college assembly and independent periods in moral instructions. Teachers' Information Proforma has been appended with thesis (Appendix VI).

The following items were scored on "All or None" basis.

i) School/College assembly is an integral part of school/college.

ii) Moral education should be imparted to children in school/college.

iii) School/College gives any kind of moral or religious instructions to the students.

iv) Moral instructions are given only in the school/college assembly.

v) There is formal moral education in the school/college.

vi) Moral values are stressed in the class.

vii) Stress on correcting wrong doings by the students.

Following items were scored according to the procedure depicted against each item.

(a) One period of moral education in a week  - 1 score
(b) Two periods of moral education in a week  - 2 scores
(c) Three periods of moral education in a week  - 3 scores
(d) Daily moral education  - 4 scores.

3.3.7: MORAL JUDGEMENT TEST (Prepared by Investigator herself)

In order to assess the moral judgement of the senior secondary students, a Moral Judgement Test was developed and
standardized by the investigator herself. Steps for the construction and standardization of Moral Judgement Test, which were used in the present study have been presented in detail in Chapter IV. Moral Judgement Test has been appended with the thesis (Appendix-IX).

3.3.8 STUDENTS' INFORMATION PROFORMA (Prepared by the investigator herself)

Self-constructed proforma i.e. Students' Information Proforma was used to collect the relevant informations about the students. This proforma comprises of 20 items related to students' personal background, family structure, education of the parents, service of mother, moral attitude of parents, disciplinary techniques used at home, faith in religious beliefs, traditions and attitude of parents, attitude of the students towards seeing T.V. and movies and some other items of similar nature. The detailed description of Students' Information Proforma has been given in Chapter - IV. The Students' Information Proforma has been appended with the thesis (Appendix - XIII).

3.3.9 GROUP TEST OF GENERAL MENTAL ABILITY (Tondon, 1971):

As a measure of verbal intelligence, the Hindi version of the Group Test of General Mental Ability (Tondon, 1971) was used in the present study. This test was preferred to others as it is a well known test and is widely used in India. Moreover, being a group test, it can be administered conveniently to a number of students at a time.
The present form of test is a second revision of test of "General Mental Ability" - Form A, which was prepared and first used in 1950. Since then it has been used on a number of students reading in B.H.U. and other colleges of Varanasi town and also students of other U.P. districts. The present version has been standardized on 200 students selected in a manner so as to give fair representation to varied student population in India.

The test contains 100 questions. Besides, it employs 10 items for practice in the beginning. Each item has been framed in such a way that it provides mostly five alternatives to each question. This has been done with a view to make scoring more rigid and objective. The test consists of 9 subtests, namely: number, series, mathematical instructions, following instructions, vocabulary similar, vocabulary opposites, classifications, analogies, best answers and reasoning. Some of these subtests have been found highly suitable for measuring general mental ability under Indian conditions.

The reliability coefficients of the test have been determined by three methods are:

i) Split-half method - .91

ii) Kuder-Richardson formula - .90 and

iii) Item reliability index and item variance - .90.

The present form (20/52) of the test correlates .28 with the Raven's Minnesota Paper Form Board Test Series AA. This
shows that there is some presence of an ability of spatial relations in this test. Further, it correlates .35 with academic examinations marks and .67 with the Samoohik Mansik Yogyata Pariksha (A Test of General Mental Ability in Hindi by Dr. S. Jalota) as reported by the author of the test. In addition to these, g-saturation worked out by Spearman's technique, for all the subsets range from .30 to .87. The presence of some general factor has further been confirmed by the factorial analysis of the test using Thurstonian Centroid Technique.

The test provides some simple directions in the beginning which are to be read carefully by the prospective investigator. To minimise the work of writing on the part of an examinee, the answers have been framed in a manner to provide an answer to a question in a digit form of one figure only. The test proper is administered for 25 minutes only. Another 20 to 25 minutes are usually required for seating the candidates, distributing of test booklets and answer-sheets and later collection of the test materials. Hence, this test can be administered in a period of 45 to 50 minutes. The answer sheets are scored with the help of a scoring key provided for this purpose. A raw score of a candidate is his total number of right attempts.

3.4 COLLECTION OF DATA AND SCORING

The data was collected from the students involved in the study, parents of the students which were involved in
the study and the teachers of the schools/colleges from where the sample was taken.

All tests were group tests, so all tests were administered on small groups of 10 to 30 students at a time in their respective classrooms. For ensuring the cooperation of the students, a good testing rapport was established in their respective schools before the actual administration of tests. After distributing the copies of the test, the subjects were asked to put their names, sex, age, name of the school/college and date etc. Standardized instructions for each test were read out to ensure that the students fully understood how the responses were to be made. If any of the item/s was not clear to the child, then he was free to ask questions. The tests were administered in two settings one after the other, with some recurrent break spread over a period of 2 to 3 days.

Parents were contacted personally at their homes for the collection of data on test of moral dilemmas. It took about four months to cover the sample of 800 parents (400 mothers and 400 fathers). In the first meeting a rapport was established with the parents and their co-operation sought to fulfil the purpose of the test as also the time convenient to them was fixed. In the second meeting, the parents (both mother and father) were given the test of moral dilemmas.
Parents who could not read or write, were made to respond by reading out to them each and every item and then asking their response towards that particular situation. The investigator herself recorded the responses in these cases.

The investigator met regularly the subject teachers during school/college hours in their free periods and recess and Teacher Information Proforma, Test of Moral Dilemmas, School Organisational Climate Description Questionnaire were given to them for obtaining their responses. Before the actual administration of these tests, a rapport was established with the teachers to seek their co-operation. It took about three months to collect the data from teachers of each school/college of each district.

Response sheets of SIDS, Moral Judgement Test, FRI, SCI, SOCDQ, Test of Moral Dilemmas were scored by hand by consulting their respective test manuals, while the scoring of Students' Information Proforma, Teachers' Information Proforma was done on one or none basis. After the scoring, the data was tabulated for computerization.

3.5 STATISTICAL TECHNIQUES:

Following statistical techniques were used:

1. The approach of upper-lower index for item analysis was used.
2. Descriptive statistics like measures of central tendency, measures of skewness and kurtosis and SD were worked out for ascertaining the nature of distribution based on the measures of various variables.

3. Pearson's Product Moment Correlation was used for finding out the correlation between personal, home, teacher and school/college variables with moral judgement.

4. Factor Analysis (Hottelling's Axes Method of factor analysis and varimax rotation of factors by Kaiser's) technique was employed to study the factor structure underlying the variables of personal, home, teacher and school/college and moral judgement.

5. Regression equations were set up, by stepping up one variable at a time to know the percentage contribution to the criterion variance by each variable and prediction of maximum possible (R) by the combination of these variables.

6. t-test was used for locating differences in the different sub-groups of urban and rural senior secondary students.

Codes used in the presentation of scores for all the variables used in the present study have been presented in Table 3.2.
Table 3.5

Table showing coding system used for different variables involved in the present study.

<table>
<thead>
<tr>
<th>Sr. No.</th>
<th>Description of items</th>
<th>Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Code</td>
<td>A: Urban Students, B: Rural Students, C: Urban Teachers, D: Rural Teachers</td>
</tr>
<tr>
<td>2</td>
<td>Moral Judgement Test</td>
<td>MJT</td>
</tr>
<tr>
<td>3</td>
<td>School Characteristics Index (Category I - Text Books and Evaluation)</td>
<td>SCI$_1$</td>
</tr>
<tr>
<td>4</td>
<td>School Characteristics Index (Category II - Teaching Methods)</td>
<td>SCI$_2$</td>
</tr>
<tr>
<td>5</td>
<td>School Characteristics Index (Category III - School Rules)</td>
<td>SCI$_3$</td>
</tr>
<tr>
<td>6</td>
<td>School Characteristics Index (Category IV - Co-curricular activities)</td>
<td>SCI$_4$</td>
</tr>
<tr>
<td>7</td>
<td>School Characteristics Index (Category V - School Traditions)</td>
<td>SCI$_5$</td>
</tr>
<tr>
<td>8</td>
<td>School Characteristics Index Total</td>
<td>SCI$_T$</td>
</tr>
<tr>
<td>9</td>
<td>Socio-Economic Status Scale</td>
<td>SES</td>
</tr>
<tr>
<td>10</td>
<td>Family Relationship Inventory - Mother Acceptance</td>
<td>MA</td>
</tr>
<tr>
<td>11</td>
<td>Family Relationship Inventory - Father Acceptance</td>
<td>FA</td>
</tr>
<tr>
<td>12</td>
<td>Family Relationship Inventory - Mother Concentration</td>
<td>MC</td>
</tr>
<tr>
<td>13</td>
<td>Family Relationship Inventory - Father Concentration</td>
<td>FC</td>
</tr>
<tr>
<td>14</td>
<td>Family Relationship Inventory - Mother Avoidance</td>
<td>MA$_A$</td>
</tr>
<tr>
<td>15</td>
<td>Family Relationship Inventory - Father Avoidance</td>
<td>FA$_A$</td>
</tr>
<tr>
<td>16</td>
<td>Family Relationship Total</td>
<td>FR$_T$</td>
</tr>
<tr>
<td>17</td>
<td>Intelligence</td>
<td>Int.</td>
</tr>
<tr>
<td>18</td>
<td>Moral attitude of mother</td>
<td>MAM</td>
</tr>
<tr>
<td>19</td>
<td>Moral attitude of father</td>
<td>MAF</td>
</tr>
</tbody>
</table>
20. School Organisational Climate Description Questionnaire - Disengagement

21. School Organisational Climate Description Questionnaire - Hindrance

22. School Organisational Climate Description Questionnaire - Organisation

23. School Organisational Climate Description Questionnaire - Intimacy

24. School Organisational Climate Description Questionnaire - Aloofness

25. School Organisational Climate Description Questionnaire - Production

26. School Organisational Climate Description Questionnaire - Thrust

27. School Organisational Climate Description Questionnaire - Consideration

28. School Organisational Climate Description Questionnaire - Esprit

29. Open Climate Score

30. Moral Attitude of teachers