Chapter - III

Method of the Study...
CHAPTER-III

METHOD OF THE STUDY

The research problem, theoretical construct of variables, the review of related studies, objectives, hypotheses and the description of tools were discussed in the preceding chapters I and II. This chapter has been focused around the method of the study.

To carry out any research investigation, it is necessary to adopt a systematic method and procedure. By methodology of any research, we mean the designing of the research, selection of the representative sample, applying appropriate research tools and techniques, collecting relevant data, analysis and interpretation of the same. The selection of appropriate method to be employed, however, depends upon purpose of the study, nature of the problem and kinds of data necessary for its study. The main purpose of this chapter is to provide details regarding, design of the study, selection of the sample, tools used, procedure and statistical techniques applied. Each one of these has been reported in the following paragraphs:

● DESIGN OF THE STUDY

Descriptive exploratory method of research was employed for the present study. This method is concerned with the surveying, describing and investigating the existing phenomenon or issues, conditions and relationships that exist, practices that prevail and beliefs, attitudes and points of views that are held.

The study employed 2x3 ‘Ex-Post-Facto’ designs where in the Academic Achievement and Aspirations of Students (Educational & Occupational) were two dependent variables. Parental Involvement and
Parental Aspirations were the two independent variables. The Parental Involvement was studied at two levels:

- Highly involved parents.
- Low involved parents.

The second independent variable was Parent’s Aspirations. Both Educational and Occupational Aspirations of parents were studied at three levels each viz: high, average & low Aspirations. The schematic layout of the design has been given below:

![Diagram]

The Academic Achievement of students was therefore, studied for the following groups:

- High Parental Involvement x High Educational Aspirations of Parents
- High Parental Involvement x Average Educational Aspirations of Parents
- High Parental Involvement x Low Educational Aspirations of Parents
- Low Parental Involvement x High Educational Aspirations of Parents
- Low Parental Involvement x Average Educational Aspirations of Parents
- Low Parental Involvement x Low Educational Aspirations of Parents
A similar analysis was done for studying academic achievement with respect to Parental Involvement (High and Low) and Parental Occupational Aspirations (High, Average and Low). A similar 2X3 factorial design was employed for Aspirations of Students. Separate analyses were done for Educational and Occupational Aspirations as shown in the following schematic lay-outs.
Method of the Study.

So that for studying Occupational Aspirations of Students the groups under study were:
- High Parental Involvement x High Educational Aspirations of Parents
- High Parental Involvement x Average Educational Aspirations of Parents
- High Parental Involvement x Low Educational Aspirations of Parents
- Low Parental Involvement x High Educational Aspirations of Parents
- Low Parental Involvement x Average Educational Aspirations of Parents
- Low Parental Involvement x Low Educational Aspirations of Parents

Similar designs were employed for:
- Educational Aspirations of students with Parental Involvement (high & low) and Occupational Aspirations of parents (high, average & low).
- Occupational Aspirations of students with Parental Involvement (high & low) and Educational Aspirations of parents (high, average & low).
- Occupational Aspirations of students with Parental Involvement (high & low) and Occupational Aspirations of parents (high, average & low).

**TOOLS USED**

The following tools were used to collect the data:

- **Parental Involvement Scale**: It covered three dimensions of the Parental Involvement viz:
  - Parent-Child Interactions (tool prepared and validated by the investigator).
  - Self-Esteem of Parents (School form of Coopersmith SEI used).
  - Socio-Economic Status (prepared by investigator).

Parent-Child Interaction Scale was prepared by the investigator herself and it covered following aspects of Parent-Child Interactions:
Method of the Study

Behavior Involvement

• Academic guidance by parents.
• Amount of direct instructional time.
• Parent’s willingness to devote time to child

Personal Involvement

• Planned Cultural activities.
• Nature of discipline (Democratic, easy-going, dictatorial etc).
• Verbal facility of parents.
• Consistency of management.
• Frequency of verbal contact between parent and child.
• Emotional security of parents

Cognitive Stimulation

• Educational aspirations for the child
• Intellectual climate at home.
• Parent’s work habits.

• Self-Esteem Inventory (School Form) by Coopersmith Stanley (1967).
• Educational Aspiration Scale (Form P) by Dr.V.P.Sharma & Dr.Anuradha Gupta (1971).
• Academic Achievement: Achievement gain scores of various tests collected from students of +1 and +2 of four schools.

SAMPLE

A sample is a group, which is selected from a larger group of population for the purpose of examination. Sample plays an important role
since generalizations about the population are made from the findings based on sample, which will have validity of results depending upon the characteristics of sample itself. Due to the factors of expense, time and accessibility, it is not possible or practical to obtain measures from a population. The researcher’s endeavor, therefore, was to collect information from a smaller group or subset of the population in such a way that the knowledge gained is representative of the total population under study.

The sample in the present investigation was selected at three levels:

- School Sample
- Students Sample
- Parents Sample

The School Sample

The study was conducted on a sample of XI & XII classes from four senior secondary schools of Chandigarh/Panchkula. Approximately 310 students constituted the sample. The schools were selected randomly out of the list of schools, which was procured from the office of the DEO, which came under UT Administration and that were affiliated to CBSE. The four schools selected from the list were:

- Bhavan Vidhyalaya, Sector 27, Chandigarh.
- Sacred Heart, Sector 26, Chandigarh.
- Carmel Convent, Sector 9, Chandigarh.
- Hansraj Public School, Sector 6, Panchkula.

The students were categorized in respect of parental involvement and parental aspirations. Intact sessions of +1 and +2 classes were taken from all the four schools. The school wise distribution of the sample is given in the following table:
Table 3.1
Distribution of sample in all four schools

<table>
<thead>
<tr>
<th>Class</th>
<th>Medical</th>
<th>Non-Medical</th>
<th>Commerce</th>
<th>Arts</th>
</tr>
</thead>
<tbody>
<tr>
<td>XI</td>
<td>42</td>
<td>35</td>
<td>31</td>
<td>39</td>
</tr>
<tr>
<td>XII</td>
<td>39</td>
<td>40</td>
<td>41</td>
<td>43</td>
</tr>
</tbody>
</table>

Total Students – 310

The Student Sample

The students of +1 and +2 stage were selected randomly. Each school had at least four sections namely medical, non-medical, commerce and arts for each one of the +1 and +2 stage. The sections had similar constitution in the above-mentioned four schools. Subject wise grouping were there in these classes and students in each of these subject sections were almost normally distributed. A general criteria followed by schools for admission to medical, Non-medical, Commerce and arts streams was 75% and above, 70% and above, 65% and above and 55% onwards respectively. Since no separate Subject-wise analysis was planned, hence students from each of these sections were randomly selected to form the final sample. At least 10-12 students from each of these sections of XI class were selected so that approximately 40-50 students of XI and 40-50 students of XII got representation in the sample. This was done to ensure that the sample does not have a bias on the basis of basic achievement levels. A procedure of stratified random sampling was used to select the final sample of the study.
Method of the Study

Table 3.2
Table showing Subject wise sample distribution

<table>
<thead>
<tr>
<th>Name of the schools</th>
<th>Medical</th>
<th>Non-Medical</th>
<th>Commerce</th>
<th>Arts</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bhavan Vidhyalaya</td>
<td>XI</td>
<td>18</td>
<td>12</td>
<td>9</td>
</tr>
<tr>
<td></td>
<td>XII</td>
<td>19</td>
<td>12</td>
<td>16</td>
</tr>
<tr>
<td>Sacred Heart</td>
<td>XI</td>
<td>16</td>
<td>9</td>
<td>10</td>
</tr>
<tr>
<td></td>
<td>XII</td>
<td>14</td>
<td>10</td>
<td>10</td>
</tr>
<tr>
<td>Carmel Convent</td>
<td>XI</td>
<td>0</td>
<td>8</td>
<td>5</td>
</tr>
<tr>
<td></td>
<td>XII</td>
<td>0</td>
<td>10</td>
<td>9</td>
</tr>
<tr>
<td>Hansraj Public School</td>
<td>XI</td>
<td>8</td>
<td>6</td>
<td>7</td>
</tr>
<tr>
<td></td>
<td>XII</td>
<td>6</td>
<td>8</td>
<td>6</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>81</td>
<td>75</td>
<td>72</td>
</tr>
</tbody>
</table>

N = 310

The Parents Sample

Once the students sample was finalized, their parents were approached for taking their opinion on varying issues of Parental Involvement. Initially the demographic information was collected from the students. The attention was given to the fact that final sample did not have any bias and covered varying elements.
Table 3.3
Table showing Distribution of Final Parents’ Sample

<table>
<thead>
<tr>
<th>Name of the Schools</th>
<th>XI</th>
<th>XII</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bhavan Vidhyalaya</td>
<td>39</td>
<td>83</td>
</tr>
<tr>
<td>Sacred Heart</td>
<td>35</td>
<td>34</td>
</tr>
<tr>
<td>Carmel Convent</td>
<td>13</td>
<td>19</td>
</tr>
<tr>
<td>Hansraj Public School</td>
<td>60</td>
<td>27</td>
</tr>
<tr>
<td>Total</td>
<td>147</td>
<td>163</td>
</tr>
</tbody>
</table>

N = 310

PROCEDURE ADOPTED FOR DATA COLLECTION

The study was conducted at two stages:

Stage I: Selection of the Sample
Stage II: Collection of Data

- **Stage I: Selection of the Sample**
  The procedure adopted for selection of the sample has already been discussed under the heading Sample.

- **Stage II: Collection of Data**
  The aim of the present investigation was to study Academic Achievement and Students Aspirations in relation to Parental Aspirations and Parental Involvement. All the tools employed in this study were administered to 310 students and their parents from different schools of
Chandigarh and Panchkula. After establishing a proper rapport with the students, scales measuring the above mentioned variables were administered in small groups and in at least three sittings.

The testing conditions for all the students were kept as constant and uniform as possible. Before starting the testing session, it was ensured that the subjects were seated comfortably in a room where there was no outside disturbance. The subjects were told to give their true, free and frank responses and opinions. Instructions for each test were given at the top of each questionnaire. The subjects were assured that the information revealed by them would be kept confidential, since it was being collected for the purpose of research only. Information about scores of each child on various tests as a measure of Academic Achievement of each child was collected from the school records. For this purpose, the total marks obtained by each child in the last two consecutive examinations were considered, and their average was taken as an index of scholastic accomplishment.

**Fixing Schedule**

After the selection of the sample principals of the selected schools were contacted with prior appointment. A schedule was fixed to collect information from the students of four sections of classes XIth & XIIth with the help of the respective class teachers. On the scheduled date informal introduction with the students was done through their class teachers to develop rapport. Proper conditions for data collection were ensured.

**Administering the Tools**

The investigator administered the first tool i.e. Parental Involvement Scale on 04.01.2000. Each tool was administered on a separate day, as revealed by the following table 3.4.
Method of the Study.

Table 3.4
Schedule of Administering Tools in Various Schools under Study

<table>
<thead>
<tr>
<th>S.N</th>
<th>Name of the School</th>
<th>Class</th>
<th>No. of Students</th>
<th>PCI Scale</th>
<th>SEI (School Form)</th>
<th>Aspirations</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Educational</td>
</tr>
<tr>
<td>1</td>
<td>Bhavan Vidhyalaya</td>
<td>XI</td>
<td>41</td>
<td>04.01.2K</td>
<td>12.01.2K</td>
<td>Parents</td>
</tr>
<tr>
<td></td>
<td>Sector 27 Chandigarh.</td>
<td>XII</td>
<td>45</td>
<td>14.01.2K</td>
<td>15.01.2K</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>Sacred Heart</td>
<td>XI</td>
<td>33</td>
<td>18.01.2K</td>
<td>21.01.2K</td>
<td>24.01.2K</td>
</tr>
<tr>
<td></td>
<td>Sector 26 Chandigarh.</td>
<td>XII</td>
<td>39</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>Carmel Convent</td>
<td>XI</td>
<td>39</td>
<td>01.02.2K</td>
<td>04.02.2K</td>
<td>08.02.2K</td>
</tr>
<tr>
<td></td>
<td>Sector 9 Chandigarh.</td>
<td>XII</td>
<td>42</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>Hansraj Public</td>
<td>XI</td>
<td>34</td>
<td>14.02.2K</td>
<td>21.02.2K</td>
<td>22.02.2K</td>
</tr>
<tr>
<td></td>
<td>Sector 6 Panchkula.</td>
<td>XII</td>
<td>37</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

When the collection of data from the students was over, the parents of these students were approached on Parent-Teacher Meet and the scale of Parental Aspirations and Parental Involvement were given to them. A few parents co-operated to an extent that they immediately filled the forms and submitted to the researcher/class teacher. A few requested to take them home to fill up at a convenient time. They promised to send the tools the next day through their children and in fact they did so. Only a very few parents neither provided information at the time of meeting nor did they send the filled in tools through their children. Since it was a very small number (only 17), the researcher approached them on telephone and explained the necessity of providing the information. A little persuasion...
helped the researcher to collect all the forms. Only two parents did not provide information even after persuasion so they were dropped from the Sample at the initial stage only. Simultaneously, the researcher collected Achievement Scores of students from the school records as described in the table 3.5.

<table>
<thead>
<tr>
<th>Date</th>
<th>Name of the School</th>
<th>Type of Achievement Score Collected</th>
</tr>
</thead>
<tbody>
<tr>
<td>17.03.2K</td>
<td>Bhavan Vidhyalaya Sector 27, Chandigarh.</td>
<td>Weight ages of various weekly tests, units, semesters and attained marks in previous class were taken. Total %age was calculated.</td>
</tr>
<tr>
<td>22.03.2K</td>
<td>Sacred Heart Sector 26, Chandigarh.</td>
<td>Weight ages of various unit tests, semesters and attained marks in previous class were taken. Total %age was calculated.</td>
</tr>
<tr>
<td>28.03.2K</td>
<td>Carmel Convent Sector 9, Chandigarh.</td>
<td>Weight ages of various class tests, unit tests, semesters, class performance and attained marks in previous class were taken. Total %age was calculated.</td>
</tr>
<tr>
<td>03.04.2K</td>
<td>Hansraj Public School Sector 6, Panchkula.</td>
<td>Weight ages of various weekly tests, units and semesters were taken. Activity record and marks in previous class were also collected.</td>
</tr>
</tbody>
</table>

- **STATISTICAL TECHNIQUES USED**
  - Descriptive statistics such as Mean & Standard Deviation were worked out to study the general nature of the sample.
  - Graphical presentations were done to analyze data qualitatively.
• Associations of different variables were computed through $\chi^2$ test.
• Analysis of variance was applied to study significance of differences among various groups.