Chapter - III

Methodology

3.1.0 Introduction

The present study was undertaken for the purpose of investigating the effect of Parental Involvement and study Habit on Academic Achievement of secondary school students. The study looked into the relationship of academic achievement with parental involvement and study habits. Research methods describe the various steps of the plan of action to be adopted in solving a research problem, such as-manner in which the problems are formulated, the definition of terms, the choice of subjects for investigation, the validation of data gathering tools, the process of collection, analysis and interpretation of data and the process of inferences and generalizations.

According to, Good, Barr and Scates (1941), “Methods of research, may be classified from many points of view; the field to which applied: education, history, Philosophy, Psychology, biology, etc.; purpose: description, prediction, determination of causes, determination of status, etc; place where it is conducted: in the field or in the laboratory; application: Pure research or applied research; data gathering devices employed: tests, rating scales, questionnaires, etc.; nature of the data collected; objective, subjective, quantitative, qualitative, etc.; symbols employed in recording, describing, or treating results: mathematical symbols or language symbols; forms of thinking: deductive, inductive, etc. Control of Factors: controlled and uncontrolled experimentations; methods employed in establishing
casual relationships: agreement, difference, residues and concomitant variation.”
(Koul, Lokesh. *Methodology of Educational Research*)

The selection of the method of research depends upon the nature of the problem. Keeping in view the nature of the problem of study, the present study adopted descriptive survey method of research. It is concerned with conditions or relationships that exist, opinions that are held, processes that are going on, effects that are evident, or trends that are developing. The details of the methodology adopted in the present study are presented further in this chapter.

### 3.2.0 Population and Sample

The population of the present study included all the higher secondary schools in Lakhimpur and Dhemaji districts of Assam. As per the data obtained from School Inspector Office, Lakhimpur and Dhemaji (2013), the total number of higher secondary schools happened to be twenty six (26) in Lakhimpur district and fifteen (15) in Dhemaji district. These schools were located in both the rural and urban areas. While drawing the sample, care had been taken to give representation of the two districts, as well as urban and rural schools.

From the total higher secondary schools a sample of 13 schools forming 31.7% of the total higher secondary schools representative of the two districts covering both urban and rural areas were selected through random sampling technique. For the purpose of the study, all the students enrolled in class - X in the academic session (2014-15) of these 13 sample schools were taken as the sample. Thus the final sample consisted of 998 students. Initially 1000 students were administered the test of Parental Involvement and Study Habit. But it was
found that 2 students could not appear for the Final examination. Thus, a total of 998 students studying in class – X formed the final sample. Further the classification of 998 secondary school students was made in view of sex, location of schools or residence, level of education of father and mother, community, management type and students from two districts. Out of the total sample, there are 505 male and 493 female, out of them 395 (173 male and 222 female) students are from urban schools and 603 (332 male and 271 female) students from rural schools. Students were categorised into different groups based on their community in which there are 370 General students, 288 Other Backward Classes (OBC) students, 125 Schedule Caste (SC) students, 215 Schedule Tribe (ST) students. The detail of the sample of the present study is shown in Table 3.1 (Page No. - )

3.3.0 Tools used in the study

For any research study, the researcher has to collect data and on the basis of that data conclusions and generalizations are drawn. These generalizations and conclusions will be correct and valid if the data are methodically collected. For collecting reliable and valid data, the following sources and tools are used:


The total marks obtained by students in the High School Leaving Certificate (HSLC) exam conducted by Board of Secondary Education Assam (SEBA) in the year 2014-15 were taken as the score of Academic achievement.
The marks of students were collected from the school record of the sample schools. A copy of the marks obtained by the respondents is given in Appendix- E.

The details regarding the Parental Involvement Scale, and Study Habit Inventory are presented in the following way:

3.3.1 Parental Involvement Scale

The parental involvement Scale was developed by Chouhan, V. L. & Arora G. G. and published by National Psychological Corporation (NPC), Agra in 2013. The scale consists of 25 items out of which 11 are negative and 14 are positive. The scale can be administered in group or individually according to convenience. This scale is a five point scale and responses range from Always, Often, Sometimes, Rarely and Never. The reliability and validity and scoring norms of the Parental Involvement are mentioned ahead (i), (ii), (iii) & (iv). A copy of the Scale is given in Appendix- B.

(i) Reliability of the Scale: The Split half method was used and the split half reliability coefficient found to be 0.92.

(ii) Validity of the Scale: Validity of the research tool was calculated by the product moment method and was found to be 0.85.

(iii) Norms: Percentile norms for the interpretation of the Parental Involvement Scale (As perceived by adolescents) were established for the age group 13 t0 18 years. The grouping of very low, low, average, high and very high parental involvement in terms of percentiles for interpretation is given below in Table 3.2
Table- 3.2
Percentile norms of PIS

<table>
<thead>
<tr>
<th>Sl. No.</th>
<th>Percentiles Scores</th>
<th>The Parental Involvement scale</th>
<th>Score Awarded</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Up to 20 percentiles</td>
<td>Very low</td>
<td>25 - 75</td>
</tr>
<tr>
<td>2.</td>
<td>21 – 40 percentiles</td>
<td>Low</td>
<td>76 - 84</td>
</tr>
<tr>
<td>3.</td>
<td>41 – 60 percentiles</td>
<td>Average</td>
<td>85 - 88</td>
</tr>
<tr>
<td>4.</td>
<td>61 – 80 percentiles</td>
<td>High</td>
<td>89 - 95</td>
</tr>
<tr>
<td>5.</td>
<td>61 and above percentiles</td>
<td>Very High</td>
<td>96 - 125</td>
</tr>
</tbody>
</table>

(iv) **Scoring Scheme for the Scale:** Scoring was done separately for the positive and negative terms. Two stencil keys are used for scoring, one for positive items and one for negative items. A positive item carries the weights of 5,4,3,2 and 1 respectively for the categories of Always, Often, Sometimes, Rarely and Never. The negative item is scored 1, 2, 3,4 and 5 respectively for the same categories Always, Often, Sometimes, Rarely and Never. The total score is the summation of the entire positive and negative item scored. The minimum score on the scale is 25 and the maximum score is 125, other scores ranging in between these limits.

3.3.2 **Study Habit Inventory (SHI)**

The Study Habit Inventory (SHI) was developed by **Mukhapadhyaya M. and Sansanwal D.N.** and published by National Psychological Corporation, Agra in 2011. The Study Habit Inventory (SHI) comprises of 70 items pertaining to nine (9) sub-component namely,
Comprehension (12 item), Concentration (10), Task Orientation (9 item), Study Sets (7 item), Interaction (3 item) Drilling (4 item), Supports (22 item), Recording (2 item) and Language (1 item) which categorize the basis of Study Habit. The items have been drafted in affirmative (52 items) and negative (18 items) forms. The Inventory can be administered in a group or individually according to convenience.

The Inventory is a five point scale and responses range from Always, Frequently, Sometimes, Rarely and Never. The reliability of the Study Habit Inventory is mentioned ahead i.e. (i) & (ii). A copy of the Inventory is given in Appendix C.

(i) **Reliability**: The reliability of the whole inventory was worked out by using split-half method and the reliability coefficient is .91.

(ii) **Scoring Scheme for the Inventory**: Scoring was done separately for the positive and negative terms. Two stencil keys are used for scoring, one for positive terms and one for negative terms. A positive item carries the weights of 4, 3, 2, 1 and 0 respectively for the categories of Always, Frequently, Sometimes, Rarely and Never. The negative item is scored 0, 1, 2, 3 and 4 respectively for the same categories Always, Frequently, Sometimes, Rarely and Never. The total score is the summation of the entire positive and negative item scored. The minimum score on the scale is 0 and the maximum score is 280 and other score is ranging in between these limits.
Norms for interpretation is given in the Table – 3.3

<table>
<thead>
<tr>
<th>Sl. No.</th>
<th>Raw Scores Range</th>
<th>Z – score Range</th>
<th>Grade</th>
<th>Study habits Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>269 and above</td>
<td>+2.01 and above</td>
<td>A</td>
<td>Excellent Study Habits</td>
</tr>
<tr>
<td>2</td>
<td>247 - 268</td>
<td>+1.26 to + 2.00</td>
<td>B</td>
<td>High Study Habits</td>
</tr>
<tr>
<td>3</td>
<td>225 - 246</td>
<td>+0.51 to + 1.25</td>
<td>C</td>
<td>Above Study Habits</td>
</tr>
<tr>
<td>4</td>
<td>196 - 224</td>
<td>-0.50 to 0.50</td>
<td>D</td>
<td>Moderate Study Habits</td>
</tr>
<tr>
<td>5</td>
<td>174 - 195</td>
<td>-0.51 to -1.25</td>
<td>E</td>
<td>Below Average Study Habits</td>
</tr>
<tr>
<td>6</td>
<td>152 - 173</td>
<td>-1.26 to -2.00</td>
<td>F</td>
<td>Poor Study Habits</td>
</tr>
<tr>
<td>7</td>
<td>151 and below</td>
<td>-2.01 and below</td>
<td>G</td>
<td>Very Poor Study Habits</td>
</tr>
</tbody>
</table>

3.4.0 Data collection

To start with, formal permission from the heads of the Higher Secondary School under study was taken by the researcher to administer the tools to the class X students. At the very outset, the students were requested to participate heartily and sincerely in responding to the tools with their own ideas and knowledge. The students were assured that the results will be only for research purpose. After that, the researcher gave all the instruction to be taken care. The two tools were administered on the same day in the class.

Regarding the data on Academic Achievement, the investigator waited for the declaration of result of HSLC examination, 2015 conducted by
SEBA as the sample students were enrolled in the session 2014-15. The results of HSLC (SEBA) was declared in May 2015 and the researcher visited the schools again to collect the marks obtained by the sample students from their respective school records for analysis.

3.5.0 Analysis of data

The researcher collected the data from a selected sample of 998 students of class X of Lakhimpur and Dhemaji districts of Assam. The pattern of analysis followed the requirements outlined in the statement of objectives and the various research hypotheses. The variables viz. Academic Achievement, Parental Involvement and Study Habit were included in the present study. The students were categorized mainly on the basis of sex, location of schools, level of education of father and mother, community, management type, district wise and the groups are compared to find out whether there exists any significant difference between them by employing One-Way ANOVA (F-test) was also used in some cases. The relationship of Academic Achievement with Parental Involvement and Study Habit; Parental Involvement and Study Habit was also worked out by employing Pearson’s Coefficient of Correlation method. Details of the analysis are given in chapter – IV