CHAPTER - III

METHODOLOGY
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Methodology in research refers to the plan of action to examine the research problem from various possible angles, so that objectives of the study could be accomplished. The meaning of methodology is the set of methods used in a particular area of activity. It may be understood as a science of study how the research is undertaken based on logically derived empirical evidences from the environment. The prime necessity of the research is not only to follow all the steps of research methods or techniques but also to consider its methodology carefully. Thus the research methodology includes research design and statistical design.

For the present study the investigator planned a line of actions to carry out the study as follows:

1. Method of Study
2. Universe/Population
3. Selection of Sample
4. Selection and preparation of tools
5. Collection of Data.
3.1 Method of Study

On the basis of the nature of study the investigator has applied the Descriptive Survey Method to get more pertinent and precise information regarding the problem as it involves the description, recording, analysis and interpretation of conditions that exist within the purview of investigation. In addition, the method compares contrasts and attempts to discover relationship between different variables under investigation for generalising a valid conclusion from the facts discovered.

3.2 Universe/ Population

The Universe / Population refers to any collection of specified group of human beings or of non-human entities. It is very necessary to refer to the population before the selection of a sample for the study to avoid ambiguity. The sample selected for the investigation should be the true representative of the entire population and should provide more detailed information about the population from which it has been drawn.

Table 3.1 Tabular presentation of various groups of population:

<table>
<thead>
<tr>
<th>Block</th>
<th>Total number of children (6-14)</th>
<th>Total number of primary schools</th>
<th>Total Enrolment</th>
<th>Total Dropout</th>
</tr>
</thead>
<tbody>
<tr>
<td>Balijana</td>
<td>48226</td>
<td>338</td>
<td>42,654</td>
<td>669</td>
</tr>
<tr>
<td>Dudhnoi</td>
<td>30204</td>
<td>320</td>
<td>25,565</td>
<td>590</td>
</tr>
<tr>
<td>Matia</td>
<td>49712</td>
<td>262</td>
<td>33,146</td>
<td>888</td>
</tr>
<tr>
<td>Lakhipur</td>
<td>58321</td>
<td>324</td>
<td>40,397</td>
<td>957</td>
</tr>
<tr>
<td>Total</td>
<td>1,86,463</td>
<td>1244</td>
<td>1,41,762</td>
<td>3,194</td>
</tr>
</tbody>
</table>

Source – District Information System for Education (DISE) and Block Elementary Education Offices (BEEO) of Goalpara District 2005.
The population of the study consists of the four Education Development (ED) Blocks, i.e. Balijana, Dudhnoi, Matia and Lakhipur of Goalpara District. It also includes the total number of primary schools, total numbers of children between the age group of 6-14 years, total enrolment and dropout in primary education of the district.

As the study has a specific reference to the tribal children, the investigator has tried to show a detail account of the above issue in case of ST of the district in Table-3.2

**Table 3.2 Tabular presentation of various groups of population in case of Scheduled Tribe of the District:**

<table>
<thead>
<tr>
<th>Block</th>
<th>Total No. of (ST) children (6-14)</th>
<th>Total Enrollment (ST)</th>
<th>Total Dropout (ST)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Balijana</td>
<td>12244</td>
<td>9473</td>
<td>205</td>
</tr>
<tr>
<td>Dudhnoi</td>
<td>15820</td>
<td>11634</td>
<td>226</td>
</tr>
<tr>
<td>Matia</td>
<td>6575</td>
<td>4591</td>
<td>245</td>
</tr>
<tr>
<td>Lakhipur</td>
<td>4476</td>
<td>3031</td>
<td>211</td>
</tr>
<tr>
<td>Total</td>
<td>39,115</td>
<td>28729</td>
<td>882</td>
</tr>
</tbody>
</table>

Source – DISE and BEOO of Goalpara District 2005

**3.3 Sample Selection**

The sample consists of 50 tribal primary schools attended by a majority of tribal students, 45 tribal and non-tribal mixed schools and 60 non-tribal schools attended by majority of non-tribal students. The schools are randomly selected.
Table 3.3 Tabular presentation of different groups of School Samples taken for the study

<table>
<thead>
<tr>
<th>Categories of school</th>
<th>No. of School</th>
<th>No. of Dropout</th>
<th>No. of Non-Dropout</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tribal School</td>
<td>50</td>
<td>150</td>
<td>100</td>
<td>250</td>
</tr>
<tr>
<td>Non-Tribal School</td>
<td>60</td>
<td>150</td>
<td>100</td>
<td>250</td>
</tr>
<tr>
<td>Mixed School</td>
<td>45</td>
<td>100</td>
<td>100</td>
<td>200</td>
</tr>
<tr>
<td>Total</td>
<td>155</td>
<td>400</td>
<td>300</td>
<td>700</td>
</tr>
</tbody>
</table>

Out of the total dropout and non-dropout population from three groups of schools, with a total sample of 700 children were taken. The data were collected with the help of the Startified Random Sampling technique.

3.4 Categories of Dropout and Non-dropout Children taken for the Study

<table>
<thead>
<tr>
<th>Categories of children</th>
<th>No. of children</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tribal Dropouts</td>
<td>200 (Boys - 100 &amp; girls - 100)</td>
</tr>
<tr>
<td>Tribal Non-dropouts</td>
<td>300</td>
</tr>
<tr>
<td>Non-tribal Dropouts</td>
<td>200</td>
</tr>
<tr>
<td>Total</td>
<td>700</td>
</tr>
</tbody>
</table>

3.4 Selection and Preparation of Tools

In order to collect data for the study the investigator has used various testing and non-testing tools depending upon the purpose of the study and category of respondents. For measuring the psychological and social variables of sample population the investigator used the readymade standardised tests i.e. Level of Aspiration (LOA) Measure developed by Bhargav and Shah (1996),
Adjustment Inventory for School Students (AISS) developed by Sinha and Singh (1993) and Socio-Economic Status Scale (1992) developed by Bhardwaj, Gupta and Chauhan availed from National Psychological Corporation, Agra. In order to meet the needs of the local children the AISS had been translated into Assamese Language by the investigator.

The tools for collecting information about the variables and schools / institution variables the investigator had developed an Institutional Data Schedule and respectively. However, the tools used for the study are:

(i) Level of Aspiration Measure.

(ii) Adjustment Inventory for School students.

(iii) Socio-Economic Status Scale.

(iv) Institutional Data Schedule

(a) Interview Schedule for Head of the Institutions/Schools.

(b) Interview Schedule for Children (both dropout and non-dropout)

A detailed description of above tools is given below:

3.4.1. Level of Aspiration Measure (LOA)

Level of Aspiration Measure is a technique for studying the dynamic psychological factors connected with the arousal of feeling of success and failure. Level of Aspiration is important in directing individual behaviour consciously and making him strive to perform certain types of activity in order to achieve a definite goal or to achieve excellence in performance. It is generally measured in terms of Goal Discrepancy Score (GDS)/ Attainment
Discrepancy Score (ADS). When GDS is high or low the person is merely imaginative, fantastic, unrealistic or below / above his self-esteem. On the contrary, when actual performance and expectancy of the individual is about the same, it may be said that the person is realistic and practical in life. Thus setting of level of aspiration may itself motivate the individual to his level best.

Description of the LOA Measure

On the basis of the nature of the study the investigator has selected the level of Aspiration Measure (LOA) developed by Mahesh Bhargav and M. A. Shah (1996) National Psychological Corporation, Agra. The LOA booklet contains the general information instruction to the respondent and the scoring table. The LOA booklet also contains the performance sheet arranged in order of trial number. A performance sheet has 50 circles (each 1 c.m.diameter) which are arranged in five rows (ten each rows) above and below these rows there are two boxes on the right side, the upper box for writing the number of expected score (except in practice trial) where as the lower is for indicating the number of actual score on completed performance. Thus, ten trials are needed for each subject except practice trial. A stop watch/clock is also required for the test.

The instructions to the respondent are mentioned on the first page of the booklet, which are to be given at the time of administration. The investigator should not say anything during the test except “Are you ready?” “Go” and “Stop” for managing the time.

Scoring and Interpretation of LOA

The scoring procedure of LOA responses is simple. It provides three types of scores.
(i) Goal Discrepancy Score (GDS)
(ii) Attainment Discrepancy Score (ADS)
(iii) The Number of Time Goal Reach Score (NTRS)

GDS is the difference between the actual score on the previous trial and goal set up of the next trial. It means Goal discrepancy is the gap between aspirations for the next trial (expected Score) and the immediate performance on previous trial. If the difference of scores are consistently positive or (excepted score is more than the actual score) it indicates that the subject seldom attains the goal he sets for himself and he is over aspirant and idealistic. But if the difference of scores is consistently negative (or expected score is less than actual score) it indicates that the subject does better than he says and he is under aspirant and does more.

GDS may be interpreted in terms of ego-involvement. If the goal setup which really expects to make that score than the subjects is ego involved and if he fails to achieve that score he is not involved (below self esteem). Attainment Discrepancy Scores (ADS) is the difference between aspirations (expected score) and the achievement (actual score) on the same trial. Thus in order to obtain ADS, expected score is subtracted from the actual scores. The size of the discrepancy shows the extent to which one surpasses or fails to reach the goal.

Both GDS and ADS are inversely related as the correlation is reported as -0.95.

An index of probability of reaching the stated goal can be measured directly through NTR scores. It is obtained when an individual’s actual score is equal or more than the expected score. Hence may be a minimum and
maximum scores with reference to the number of trials and it is expected that a subject with relatively high motivation will take less trial risk to avoid failure. The investigator had calculated only the GDS for LOA measure on her study.

**Reliability**

The reliability of this measure is calculated by the test-retest method and it is found to be 0.88.

**Validity**

The author tried to find out the validity coefficient between the measures of level of aspirations and different external criteria are found significant at 0.01 level. Hence the test is having the satisfactory validity.

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

The fundamental aspect of the personality of a child is his ability to adjust in any situations or circumstances. Adjustment may be defined as “the process by means of which the individual seeks to maintain physiological and psychological equilibrium and propel himself towards self-enhancement”. It is also refers to the adequacy of behaviour pattern the individual habitually uses to satisfy his needs.

It is an established fact that school plays an important role in shaping the behaviour pattern of the child in the development of vocational and educational attainment. The complexities and illusiveness of the psychological forces develops in the family/home affect the child’s feelings and attitudes in the process of adjustment in different situations of life. The degree of child’s adjustment in school depends upon the love, affection, acceptance and assistance of his/her parents in home and teachers in the school.
A Brief Description of AISS

This Inventory was developed by A.K.P. Sinha and R.P. Singh in 1993. It contains 60 items dealing with certain statement of behaviour and situations that most students experience at one time or the other in the a, b, c order. The subject is required to read each statement and see whether it is applied to his/her "mode of behaviour "or not. Against each statement there are two columns for response indicating yes/no. If a particular statement is true or mostly true to subject’s behaviour then he/she is to encircle “yes” and if it is false or mostly false then he/she is to encircle “No”.

Scoring Procedure of AISS

The procedure of scoring the test for AISS is simply done by hand only. For any answer indicative of adjustment is Zero (0) is given, otherwise score of one (1) is awarded according to Table (given in the manual). The total scores of a (emotional), b (social) and c (educational) indicate the general adjustment status of the children under investigation.

Reliability of the Test (AISS)

The AISS test is consistent in various occasions and its co-efficient of reliability was determined by the author and found as 0.94.

Validity of the Test (AISS)

The inventory was also validated by correlating the test scores with the ratings by the Head Superintendent of the school of the sample population with a five point scale and the co-efficient of correlation between two was obtained as 0.51.
3.4.3. Socio-Economic Status Scale

The Socio-Economic Status of an individual may be defined as the position that an individual possesses/acquires in his own social groups because of his economic level or professional placement or academic achievement. According to J. Lovinger (1940) "SES contains such factors as size of the family, race, locality or residence, education of the parents, income and occupation." In our large democratic set up the society has diversified living groups. The disparity among these groups could be because of any factors as shown by Lovinger. But do these disparities affect school attendance of the child? The investigator feels the socio-economic level does affect the practice of school attendance or going to the school on the part of the child directly or indirectly. The low income level/ poverty of parents and children's engagement in domestic chores like looking after younger siblings, working for wages etc. are the causes of economic constraints of primary education.

Development and Standardisation of the Scale

The socio-economic status scale developed by Bhardwaj, Gupta and Chauhan (1992) was used to suit the purpose of the present study. The scale includes seven areas i.e. social, family, education, profession, caste, total assets and monthly income.

Administration of the Scale

It is a self-administering scale. Each parent if literate/well versed in English was given a questionnaire sheet on which the instruction to the respondent was printed. But for the parents who were not literate/well versed in English were
asked and filled up the questionnaire by the investigator accordingly. There is no time limit but ordinarily an individual takes about 10 to 15 minutes to record his responses.

Scoring and Interpretation of the Scale

The scoring of the test is of quantitative type. Scoring key provides the weightage score for each item. Every alternative of any of the item has only one weighted score which will serve to provide the score if any ticked mark (\(\checkmark\)) is present. The total of the scores for each separate area to be put in big boxes provided at the end of each area. Interpretation of any status can be made with the help of T-scores. Categories of any status can be ascertained with the help of Table-1 given in the manual.

Reliability

The reliability of the scale has been calculated by test-retest method. The correlation was calculated through Spearman-Brown formula and it was found 0.75.

Validity

The author found the content validity of this scale, since areas and then items are solely based on research proven items.

3.4.4. Institutional Data Schedule

"The destiny of a nation is now being shaped in her classroom." There comes the importance of a school. It is the most important social institution and has to play a crucial role in developing the future citizen. The nation wide drive "Universalisation of primary education up to 14 years" can be achieved by organising efficient and good schools / institutions to help the children for
developing their potentialities through life-like experiences. It is the place where the minds of the future citizens are moulded and where their habits, outlooks and attitudes are formed. The quality of students produced by the schools will largely determine the quality of the community. The type of future citizen’s need will determine the type of school curriculum, school programmers and school activities. Unattractive and insufficient classrooms, improper teacher-pupil ratio, unfriendly teaching-learning method, inability of teachers to communicate in the language of the child, improper distribution of incentives etc. are the major reasons of ‘unfriendly school atmosphere’ for never enrolling or dropping out of children.

Description and Preparation of the Schedule

(a) The Interview Schedule for head of the schools /institutions was prepared with 65 items to collect certain information regarding the various school practices.

(b) The Interview Schedule for children (both dropout and non dropout) was also prepared with 50 items to collect certain information from the children regarding the various facilities availed by them at schools/institutions.

Both the schedules consist of five aspects of an effective school i.e. School Organisational Culture, Infrastructure/Physical Facilities, Teacher-Pupil Variables, Instructional Variables and Co-curricular activities. All these aspects have some questions covering different school practices. The schedule (a) was given to the Head of the institutions/schools and the schedule (b) was given to
the sample-children to be filled up. He/She had been given an instruction to remark either in 'yes' or 'no' by analysing the adequateness or inadequateness of all the statements (items) of school practices/ facilities.

**Scoring of the Schedules**

Both the schedules had been scored in each of five aspects. Each 'yes' response was allotted 1 mark and 'no' response was 0 (Zero). The maximum scores in each aspect were indicated the degree of effectiveness of the institution/school as adequate or inadequate. Minimum scores of 65% i.e., 40(for schedule a) and 33(for schedule b), indicates the adequateness of a school.

**3.5. Collection of Data**

In the process of investigation, the investigator had used both primary as well secondary sources of data. The primary data were collected from the teachers, head of the institutions, parents and the children (both dropout and non dropout) of the school through the use of above tools. The secondary data were collected from various reports and information of four Block Elementary Education Offices and District Elementary Education Office of the district. The district SSA office had provided a major source of information i.e. DISE 2005-06 and 2006-07.

The researcher has taken utmost care in proper application of these tests and tools and it has been done efficiently without bias. The investigator visited a few remote villages within each block in the district which were taken as
sample. The educational blocks which covered under investigation were- Balijana, Dudhnoi, Matia and Lakhipur. The investigator first of all met the BEEO of each block, to get information regarding the number of dropout children and the respective elementary schools to which they belong. Following the block officer's suggestion the investigator arranged to meet the CRC members as well as the Headmasters of the respective villages for more information.

At the sample schools the investigator met the Headmaster or teachers in charge and collected lists of those dropout children, who remained the target groups for the study along with their home addresses. But prior to studying the dropouts she had collected information regarding the institution/school through the self developed 'Institutional Schedule' on five aspects of school variables. The data also collected from non-dropout / in-school children, randomly selected, through Level of Aspiration Test, School Adjustment Inventory and Interview Schedule. She also interacted with the parents of the non-dropout children on their socio-economic condition through SES Scale.

According to the list of dropout children between the age group of 6-14, the investigator administered the LOA, AISS Test and Interview Schedule on the dropout children and SES to their parents. Sometimes the investigator had to face problems as the parents and dropout children often left home in search of work or for some other reasons.

It was quite interesting to see the children fill up the LOA test though they required a lot of instruction to do that correctly. In testing AISS test on the non-dropout children they too felt very uneasy to express themselves especially
in educational matters, though the researcher convinced them that all the information given by them would be kept secret.

In some of the tribal areas of Dudhnoi block, like Muslum, Hasibari, Dhimajkhily, Jira, Dhupdhara etc., the dropouts were mostly girls and they were engaged in their domestic chores helping out their parents.

In the villages like Cholibari, Sigri, Dahikata, Hatimura, Senimari etc. from Matia and Lakhipur blocks, most of the non tribal children were found as dropout. The dropout children were mostly boys in these areas.

However, the villagers/ community members and parents were very hopeful, anxious and cooperative in answering to the investigator.

The investigator also availed some secondary sources of data from various offices of the district i.e., District Statistics and Economic Office, District SSA Office, District Elementary Education Office and all the four Block Elementary Offices of the district like Balijana, Dudhnoi, Matia and Lakhipur. The data collected from the above mentioned sources helped her most to successfully complete the study.

3.6 Statistical Techniques

Statistics is an important and indispensible tool in a research work. It is a body of mathematical techniques and processes used for measuring the composite data into a simpler form. The statistical techniques that used in this study were classified in two sections, such as the descriptive statistics and the inferential statistics. The descriptive statistics was used for quantitative description of data collected through various tools in simple percentage. The percentage given on various categories were presented graphically with Line
Graph and Bar Graph. The mean and standard deviations were also calculated in this section.

In inferential statistics various tests of significance were done for testing hypotheses and to determine the validity of data and to draw conclusion(s). The one-way analysis of variance through $F$-ratio and $t$-tests were calculated.

However, the above statistical measures were applied to find out the significant effect and significant difference between means of various groups of dropouts and non-dropouts in relation to their psycho-social and institutional variables.