CHAPTER- IV
CHAPTER-IV

METHODOLOGY

Introduction:

The research was on tribal community of Mishing Adolescence in Assam, as a field study of an exploratory nature. It was a sample survey data based research conducted in the Lakhimpur and Dhemaji District of Assam. Data were collected on the levels of cognitive development, Personality Pattern, Academic Achievement, Culture and Socio-Economic Background of Mishing adolescents with the use of various standardizes and self development tools.

The methodology of the social sciences has evolved slowly within this evaluation; the continuous inter change of ideas; information; and criticism made it possible to firmly establish; or institutionalized; commonly accepted rules and procedures and to develop corresponding methods and techniques.

It the methodology is correct and (we assume) the conditions under which the study was made or the events occurred have not changed; we would expect the finding to be similar. Indeed condition may change and new circumstances emerge. But the significant of inter-subjectivity lies in the ability of a scientist to understand and evaluate the methods of others and to conduct similar observations so as to validate empirical facts and conclusions. In the words of Abraham Caplan “the methodological question is always limited to whether what is reported as an
observation can be used in subsequent inquiry even if the particular observer is no
longer a part of the context”.

This research on Mishing adolescence of Assam is a field study of an
exploratory nature. It is based mainly on data collection through a sample survey
conducted in the Lakhimpur and Dhemaji district of Assam. This study based on field
study as an explanatory nature on Mishing adolescence. Data collection made a
sample survey by the investigator in Lakhimpur and Dhemaji district.

4.1. Methodology:

Taking in to consideration of the merits of the survey, survey method is used
for this study. The descriptive research or normative survey method has undoubtedly
been the most popular and the most widely used research method in education. Survey
research in education involves the collection of information from members of a group
of students- teachers or other person associated with the educational process and the
analysis of this information to illuminate important of educational process.

The starting point for a survey is a clear statement of the questions, which the
survey is designed to answer. The finishing point is a set of results, which address
these questions? There is a logical set of procedures, which is usually adopted in order
to proceed from the questions to the result.

4.1.1 Purpose of Survey:

The purposes of surveys fall in two main categories. First surveys may be used
to obtain descriptive information about a target population. Occasionally the entire
population may be including in the survey; as in a census of school enrolments. More
commonly a sample is selected and results obtain from the sample are generalized to the population. Examples include surveys to provide norms for standardized test. Second; a survey may be designed to examine relationships between various factors; typically seeking to explain differences between students; no some criterion in terms of a range of explanatory factors. For example to explain differences in the mathematics achievements of students in terms of their age, sex, exposure to the mathematics curriculum; and amount of time spent in class on learning mathematics. Rosier (1980) understanding surveys of the second type are conceptual models, which the researcher wishes to test with the aim of improving understanding of the network of factors influencing educational process.

4.1.2 Survey Research Cycle:

The methodology of survey research has now been well established under the influence of three main factors. First, the technology of sampling has research high level. The theoretical aspect of probability sampling have been extensively investigated; and the relationship between random samples and the target populations from which they have been taken may now be readily expressed quantitatively in terms of sampling errors (standard errors of sampling). Second, many technique develop for collecting valid and reliable information from survey respondents. Third, the availability of computers and sophisticate survey research computer program (have facilitated the analysis of this information). To analyze the range of components of a typical project is in terms of a survey research circle. A detail description of one version is given in Runcal and M. C. Grath (1972). Each stage has implications for
latter stage. Both in its planning and execution; a survey may be conducted more efficiently by reference to the logical demands of the circle, which are summarized.

4.1.3 Questions:

The starting point of a survey is the best on statement of the questions to be addressed by the investigation; set in the demography; social and administrative context in which the questions were identified.

4.1.4 Conceptual Framework:

The next stage of the circle; the factors or components include in the original questions should be defined more precisely in conceptual terms. Where an explanatory survey is being undertaken; the hypothesized relationships between concepts should be expressed in terms of a conceptual framework.

4.1.5 Instruments:

The general term in instruments refers to the range of questionnaires; tests; attitude scale and so no used for the collection of data in a survey. The instruments
should be linked to the concept include in the conceptual framework. They should be selected or designed for the collection of data suitable for conservation into variables for subsequent analysis.

4.1.6 Data Collection:

The data collection stage of the research circle involves identifying the survey respondents and collecting the design information from them. In a survey information is collected from persons in their natural surroundings, for example from students in their normal classes.

4.1.7 Target Population:

Prior to preparing plans for selecting respondents; it is necessary to define the target population carefully; in order to set the administrative limits for the survey as well as to specifically the population to which the results of the survey may be generalized. Where the students are to be the unit of sampling; a typical population may be initially defined as “all 14 year old students”.

4.1.8 Sampling Design:

The selection of respondents from the target population is based on a sampling plan or design; except where information is to be collected from all members of the population. Most sampling plans assume random sampling; so that each member of the sampling is selected with a known probability. It is than possible to use data derive from the sample itself to estimate statistical characteristics of the population.
4.2 Selection of Final Sample of the Present Study:

The present descriptive research investigation was carried out on the Mishing Adolescent taken from selected district. The final sample was selected through the following three phrases –

4.2.1 First Phase:

Out of 27 districts of Assam in North East region 2 (two) district were selected on the basis of highly populated area by Mishing community.
4.2.2 Second Phase:

In the consisted of 8 (eight) blocks from Lakhimpur district, the investigator purposively selected 4 (four) blocks. And in the Dhemaji district consisted of 5 (five) blocks the investigator purposively selected 4 (four) blocks for investigation.

Table No: 1

FOUR BLOCKS IN EACH DISTRICT

<table>
<thead>
<tr>
<th>Lakhimpur District</th>
<th>Dhemaji District</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sl. No</td>
<td>Name of the Block</td>
</tr>
<tr>
<td>1</td>
<td>Karunabari Block</td>
</tr>
<tr>
<td>2</td>
<td>Bihpuria Block</td>
</tr>
<tr>
<td>3</td>
<td>Naoboicha Block</td>
</tr>
<tr>
<td>4</td>
<td>Narayanpur Block</td>
</tr>
</tbody>
</table>

4.2.3 Third Phase:

At the third phase investigator selected Narayanpur Block (block-1) selected 2 schools (boys and girls). From Bihpuria block (Block-2) selected 2 schools (boys and girls). From Naoboicha block (Block-3) selected 2 schools (boys and girls). From Karunabari block (block-4) selected 2 schools (boys and girls) and from the Dhemaji district investigator selected Boroloni block (Block-1) selected 2 schools (boys and girls). From Dhemaji block (block-2) selected 2 schools (boys and girls). From Sisiborgaon block (block-3) selected 2 schools (boys and girls) and from Machkhowa block (block-4) selected 2 schools (boys and girls).
### Table No: 2

**BLOCK WISE SCHOOLS DISTRIBUTION**

<table>
<thead>
<tr>
<th>District</th>
<th>Block Distribution</th>
<th>Name of the School</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lakhimpur</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Block-1</td>
<td>Karunabari</td>
<td>1. Bangalmora HS school</td>
</tr>
<tr>
<td></td>
<td></td>
<td>2. Laluk HS school</td>
</tr>
<tr>
<td>Block-2</td>
<td>Bihpuria</td>
<td>1. Neheru HS School</td>
</tr>
<tr>
<td></td>
<td></td>
<td>2. Dhinaguri HS School/</td>
</tr>
<tr>
<td>Block-3</td>
<td>Nowboicha</td>
<td>1. Phulbari HS school</td>
</tr>
<tr>
<td></td>
<td></td>
<td>2. Dhekiajuli High School</td>
</tr>
<tr>
<td>Block-4</td>
<td>Narayanpur</td>
<td>1. Namani Subansiri</td>
</tr>
<tr>
<td></td>
<td></td>
<td>2. Dhalpur HS school</td>
</tr>
<tr>
<td>Dhemaji</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Block-1</td>
<td>Dhemaji</td>
<td>1. Dheamji HS School</td>
</tr>
<tr>
<td></td>
<td></td>
<td>2. Passim Dhemaji H.S.school</td>
</tr>
<tr>
<td>Block-2</td>
<td>Bordoloni</td>
<td>1. Bordoloni HS school</td>
</tr>
<tr>
<td></td>
<td></td>
<td>2. Bhebeli High School</td>
</tr>
<tr>
<td>Block-3</td>
<td>Machkhowa</td>
<td>1. Machkhowa HS school</td>
</tr>
<tr>
<td></td>
<td></td>
<td>2. Butikur HS school</td>
</tr>
<tr>
<td>Block-4</td>
<td>Sissi Borgaon</td>
<td>1. Moridhol HS school</td>
</tr>
<tr>
<td></td>
<td></td>
<td>2. Jiya Dhal HS School</td>
</tr>
</tbody>
</table>

### 4.2.4 Fourth Phase:

At the fourth phase investigator selected 500 respondents each districts of Mishing Adolescents (Boys and Girls) from IXth and Xth standard. In the Districts of Lakhimpur, the total respondents are 250. Out of 250 boys respondents are 164 and girls respondents are 115. In the Dhemaji District the total respondents are 250 and out of 250, boys respondents are 116 and girls respondents are 95, distributed at Govt. aided schools in each selected blocks.

Purposive Sampling classifications are made for the districts, blocks, schools, classes, boys and girls. The modality taken for the study covered by Personality
Table No-3
Block-wise distribution of Mishing Adolescents boys and girls respondents of
Lakhimpur and Dhemaji district

<table>
<thead>
<tr>
<th>Block Code</th>
<th>Lakhimpur District</th>
<th>Dhemaji District</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Boys</td>
<td>Girls</td>
</tr>
<tr>
<td>KBLD</td>
<td>45</td>
<td>23</td>
</tr>
<tr>
<td>BBLD</td>
<td>26</td>
<td>21</td>
</tr>
<tr>
<td>NBLD</td>
<td>29</td>
<td>21</td>
</tr>
<tr>
<td>NBBLD</td>
<td>26</td>
<td>21</td>
</tr>
</tbody>
</table>

4.3 Description of the Field:

Lakhimpur District is situated on the North East corner of Assam. The district lies between 26°48' and 27°53' northern latitude and 93°42' and 94°20' east longitude (approx.) Boundary It is bounded on the north by Siang and Papumpare District of Arunachal Pradesh and on the east by Dhemaji District and Subansiri River. Majuli Sub Division of Jorhat District stands on the southern side and Gahpur sub division of Sonitpur District is on the West. The District covers an area of 2277 Sqkm out of which 2257 Sqkm is rural and 20 sqkm is urban.

The Dhemaji district is comprises of erstwhile Dhemaji and Jonai sub-division and parts of Machkhowa mouza and Bordoloni. Forted by arch shaped Arunachal hills on the North and the East, the district emerges from the foot hills and stretches to the Brahmaputra River with Subansiri one side and the river Siang on the other. Geographically situated between the 94° 12' 18" E and 95° 41' 32" E longitudes and 27° 05' 27" N and 27° 57' 16" N latitudes, the district covers an area of 3237 Sq. Km and is a basically plain area lying at an altitude of 104 m above the Mean Sea
Level. The Provisional population total as per Census of India, paper 1 of 2011 is as follows.

Table No: 4  
Category wise population of Lakhimpur and Dhemaji district

<table>
<thead>
<tr>
<th>Areas</th>
<th>Total</th>
<th>SC</th>
<th>ST</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Male</td>
<td>Female</td>
<td></td>
</tr>
<tr>
<td>Lakhimpur</td>
<td>455691</td>
<td>433319</td>
<td>70060</td>
</tr>
<tr>
<td>Dhemaji</td>
<td>294643</td>
<td>277301</td>
<td>30472</td>
</tr>
</tbody>
</table>

Source: Social welfare office, Lakhimpur and Dhemaji Districts as per 2001 census.

4.4 Tools Used:
As regards the tools used for the study:

1. Level of cognitive development (LCD) developed by the Investigator (Appendix-1)

2. Multidimensional Personality Patterns (MPI) standardized by Km. Manju Agarwala (Psychology) 1984, Agra College, Agra. (Appendix-2)

3. Culture and Socio-Economic background of Mishing adolescents developed by the investigator (Appendix-3)

4. Academic Achievement (collected by Investigator from the office of the school) (Appendix-4)

4.5 Description of the Tools:

(i) Level of Cognitive Development: Questionnaire Schedule developed by the investigator. There are 100 short type questions are based on the Social Study, General Science, General mats, Assamese, Hindi and Computer Science of the New
Syllabus recognized by NCERT 2009-2010, for class IXth and Xth boys and girls. Each question carries 1 (one) mark and the duration of the test was for 2.30 hours. The preliminary draft of cognitive development was modified in two times.

In the first round of modification the preliminary draft was given to ten experts in the field of Education with a request to give their comments, comprehensiveness, and other suggestions. All the experts gave suggestions to follow the content of the syllabus and given idea to develop question only on the basis of perception and conception of student on content based developed knowledge with basic mental ability.

In the first draft investigator developed approximate 150 questionnaires based on English, Assamese, Social Study, General Science, Mathematics, Hindi and Computer Science accordingly syllabus. Questionnaires reflected on various aspects of social life, literature, historical concept, political and civic concept, environmental concept and theoretical knowledge of computer. Each question follows 1 mark. Question was made separate format for IXth and Xth standard.

There are 25 questions for English, 40 questions for General Science, 30 questions for Mathematics, 20 for Assamese language, 35 questions for Social Study class Xth. Experts suggest minimizing the total number of question from 150 to 100.

There are 35 questions for English, 45 questions for Mathematics, 20 for Assamese language, 30 for Hindi and 20 questions for computer Science for class IXth standard. Experts suggest minimizing the total number of question from 150 to 100.

In the second draft investigator developed 100 questions for class IXth standard accordingly 20 questions for English, 30 for Social Study, 13 for Mathematics, 18 for Assamese, Computer 13 and 5 questions for Hindi.
In the second draft investigator also developed 19 questions for English, 35 questions for Science, 22 for Social Study, 13 for Mathematics, 11 for Assamese language and total number of questions was 100 for class Xth.

Two sets of questions were given to 20 students of each class of IXth and Xth standard in separate form for finalization and standardization.

**Reliability:** The Final draft was administrated over male (20) and female (20) students in each class of IXth and Xth standard of Kalabari Higher Secondary School in Sonitpur district for standardization of the questionnaire. It was administer separately to each group twice with a gap of 15 days. For the purpose split half reliability and test-retest method was applied for the standardization. The reliability came out for IXth standard respectively in each subject like English .97, Social Study .98, Mathematics .96, Assamese language .99, Computer .96 and Hindi .97. The reliability came out for Xth standard respectively in each subject like English.96, General science .96, Assamese language .98, Mathematics .97, and Social study .98. .

(Appendix-i)

(ii) **Multi dimensional personality inventory (M.P.I.) 1984:** Constructed and standardized by K.M. Manju Agarwal, Research Scholar (Psychology), Agra College, Agra. This was translated by investigator in Assamese language for the purpose of the study.

The statement related to six sub area of the present inventory has been written in English and translated into Assamese language and given to ten experts who know both the languages. All the statement follows five point scales. On the basis of language ambiguity and suitability, only high rated items have been retained for the test.
The present Inventory has 120 items in all. Each 20 items (A, B, C, D, E and F) related to the following personality measures.

(a) Introversion-Extroversion
(b) Self-Concept
(c) Independence-Dependence
(d) Temperament
(e) Adjustment
(f) Anxiety

Each item have three alternative answers- ‘yes’, ‘no’ and ‘sometimes’, which refers to the extent of agreement and disagreement of the content. The present test can be administrated individually as well as in group situation. There is no time limit for the completion of the inventory. Usually it requires 45 to 50 minutes. The standard instructions are printed on the front page of the Inventory. Separate Answer-Sheet is available for giving the answer.

The scoring procedure of the inventory is very simple:

1. Yes =3
2. NO =2
3. Sometimes =1 (Appendix -ii)

The investigator for research purpose accepted only highest score of the statement.

(iii) Culture and Socio-Economic Background of Mishing Adolescents: A questionnaire schedule developed by the investigator for culture and socio-economic background of the Mishing Adolescents. The investigator developed 36th question on Culture and Socio Economic Background for the purpose. Out of 36 questions 10
questions are based on general information, 12 questions are based on socio economic background and other 14 questions based on culture.

Before final draft of the questionnaires, it was discussed with the experts for their opinion. The questionnaire schedule used for both the classes IXth and Xth standard, boys and girls. The information was collected through the personal and close observation by the research scholar on the spot also. Question follows to different items like their nature of house; nature of family pattern, family income; religious rituals and other cultural environment etc. Investigator identified their socio-cultural environment only on the basis of respondent’s response with Yes or No. Closed type questions nature used for this descriptive study. Each answer follows same score as 1. The ‘Yes’ followed by the concept of respondents believe on highly traditional socio cultural environment and ‘No’ denotes as less believe on traditional socio cultural environment. (Appendix-iii)

(iv) Academic Achievement - However, no tool was used for measuring the Academic achievement for investigation purpose. It was decided to collect student’s secured marks in the Annual High School Examination, which was conducted by the District School Board in both the two districts. The marks were collected through Personal Visits to those Schools by the investigator from official personnel.

The categories of students were classified on the basis of their secured marks in the above mentioned examination as given below:

<table>
<thead>
<tr>
<th>Category</th>
<th>Marks Secured</th>
</tr>
</thead>
<tbody>
<tr>
<td>1st High</td>
<td>60% and above</td>
</tr>
<tr>
<td>2nd Average</td>
<td>45% and above</td>
</tr>
</tbody>
</table>
| 3rd Low      | Below 45%           | (Appendix-iv)
4.6 **Technique of Data analysis:**

The purpose of analysis of the data, the techniques used for the study, simple numerical and statistical techniques like percentage, mean, median, standard deviation, etc. To see the relationship between the variables, Karl Pearson’s coefficient of co-relation, T-Test were used. All the questions of the questionnaires were translated into the mother tongue of the respondents for their better understanding. A simple method was used for assess the data of all variables both the qualitatively and quantitatively. Computer programmed was used as latest version of Statistical Package for Social Science (SPSS_Ver.19)

4.7 **Data Collection:**

Data collected through the process of personal visit with the use of tools vis. Multidimensional Personality Inventory by Km. Manju Agarwal (1984) (Assamese Version), Level of cognitive development, Culture and Socio-Economic Background questionnaire to the respondents of Mishing Adolescents of Class IIXth and Xth standard. All the scheduled tools were given to the selected samples at a time. Time was given to the respondents 2 to 2.30 hrs. Tools also used in group wise but separate sheet for each student. Total duration of data collection was 3 to 4 months for each district. Lastly investigator collected student's performance as Academic Achievement from the school official for each student from the school record sheet.

The primary data collected from various libraries like Guahati University Library, Assam Central University Library, Silchar, NEHU, Shillong, Dibrugarh
University Library, Tezpur Central University, Assam, Pune University, Mumbai University, Arunachal University and different college library of Assam.

The investigator has collected statistical data, document and other relevant literature from various Governmental Departments like Mishing Autonomous Council (M.A.C.) Assam, Director of Census, Director of public information, Tribal study centre, Guwahati, Assam, Amiya Kumar Das Institutions (O.K.D) etc. and taken from some personal experience of aged person of Mishing people.