CHAPTER - III

METHODOLOGY

3.1 Methodology and Research Design

Research Methodology is a way to systematically solve the research problem. It is a scientific study of research problem. In research methodology the investigator study the various steps that are generally adopted by a researcher in studying one’s research problem along with the logic behind them. In any purpose of research study the researcher should know the research methods and techniques as well as the methodology. In a research study a researcher should know how to develop certain indices or tests, to calculate the mean, median, mode, standard deviation or chi-square and research technique. It is also necessary to know the application of methods or techniques and their relevance for the study. Researchers also need to understand the assumptions underlying various techniques and the criteria by which they can decide that certain techniques and procedures will be applicable to certain problems and others will not. The researcher has to design a methodology for his or her problem as the same may differ from problem to problem. Research methodology is a multi-dimensional approach.

Research method is a part of the research methodology. Research methods are the methods the researchers use in performing research operations. Research methods can be categorized under three groups –

i. Methods that are concerned with the collection of data.

ii. Statistical techniques that are used for establishing relationships between the data and the unknown.
iii. Methods that are used to evaluate the accuracy of the result obtained.

Research methods refer to the behavior and instruments used in selecting and constructing research technique. Methods generate techniques.

Research methodology is also known as Research Design and it refers to the plan of action for carrying out research problem. It is the conceptual framework within which the whole research is accomplished. It is a plan of action, a plan for collecting and analyzing data in an economic, efficient and relevant manner. There are mainly three types of research.

a) Historical Research

b) Descriptive Research

c) Experimental Research

3.2 Method has been adopted for the present study:

The present study was designed to study and evaluate the implementation of Inclusive Education Program under Sarba-Siksha-Abhiyan at elementary stage in Barpeta District, Assam. The investigator decided to take help of descriptive method of educational research to investigate, describe and to interpret the collected data.

The present study has been undertaken to find out the implementation of inclusive education for elementary stage under Sarba-Siksha-Abhiyan. In this context an attempt was made by the investigator to observe the attitude of teachers, parents and students regarding inclusive education for Children with Special Needs. Attitude of teachers both male and female as well as parents of rural and urban was taking into consideration.
Therefore descriptive survey method was followed to carry out the study. In survey studies the data were collected to estimate the present status of a phenomenon. It provides a detail description about existing phenomena with the intent of employing data to justify current conditions and practices or to make intelligent plans for improving them.

3.3 Population of the Study

Population indicates the totality of people that any researcher wants to study within the context of a particular research problem. A population is any group of individuals that have one or more characteristics in common that are of interest to the researcher. Population may include all the individuals of a particular type, or a more restricted part of that group. When the population is relatively large and physically not accessible, researchers conduct survey only a sample. Population may be both finite and infinite.

The population of the present study has been comprised of all the Children with Special Needs (CWSN) students at elementary level of Provincialised schools in Barpeta District, Assam. Total number of population has been found 6013. Out of seven (7) educational blocks of the district, four blocks (4) have been selected for the present study. The number of CWSN students in four (4) blocks has been found 2755.

Table – 4 Population of Children with Special Needs

<table>
<thead>
<tr>
<th>Barpeta District</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Total No of CWSN</td>
<td>6013</td>
</tr>
<tr>
<td>Total No of Blocks</td>
<td>07</td>
</tr>
</tbody>
</table>
### Total No of Blocks selected for the present study

<table>
<thead>
<tr>
<th>Total No of Blocks selected for the present study</th>
<th>04</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total No of CWSN in 04 Blocks</td>
<td>2755</td>
</tr>
<tr>
<td>Total No of Schools in selected Blocks</td>
<td>1081</td>
</tr>
</tbody>
</table>

#### Fig: 3- Schematic diagram showing distribution of sample

Total number in four (4) blocks = 2755

![Diagram showing distribution of sample](image)

#### Total number of Teachers in four (4) blocks = 3900

![Diagram showing teachers distribution](image)

#### Total number of Schools in four blocks = 1081

![Diagram showing schools distribution](image)

### 3.4 Sample of the study

A sample is a small proportion of a population selected for observation and analysis. One can make certain inferences about the characteristics of the population by
observing the characteristics of sample, from which it is drawn. A sample is a proportion of people drawn from larger population. The present study has been conducted on a representative sample of 20% Children with Special Needs students and parents on the basis of disproportionate stratified sampling technique and 10% teachers from the selected blocks with the help of simple random sample technique. The investigator used disproportionate stratified sampling to draw population from four selected blocks of the present study. On the other hand disproportionate sampling technique has been used to select nature of Children with Special Needs (CWSN) children as the variation in number of Children with Special Needs exists in different schools out of selected blocks. Stratification has been done to consider variation in different strata.

In the first stage, Barpeta District was selected for the present study. In the second stage four (4) educational blocks out of total seven (7) blocks were selected and out of total 1081 schools 110 (10%) schools from four blocks (Barpeta, Bhawanipur, Gobardhana and Rupsi) have been selected for the present study. Selection of the schools has been done on disproportionate sampling technique. In selection of the blocks for the present study the socio-economic factors and rural-urban difference were kept in mind. Secondly information regarding population and schools of educational under Barpeta District has been collected from block offices, SSA office and IS office of Barpeta District as well as census report and Statistical Handbook of Assam. In the third stage the final sample was selected randomly to draw out sample of the elementary schools from four blocks and the number of Children with Special Needs (CWSN) children and parents were selected randomly and the teachers were selected randomly for the present study.
Fig- 4 - Showing total number of sample for the final study

Total number of Children with Special Needs (CWSN) and parents for final study Students and Parents from four (4) blocks

Total number of teachers for final study

Number of schools for final study – 110

Total – (552 +552) = 1104

Total = 400

Total = 110
3.5 (a) Justification of Sample Selection

In selection of the schools of Barpeta District random sampling technique has been followed. Stratification has been done on the basis of urban- rural difference of the educational blocks. Children with Special Needs (CWSN) children have been divided into two groups– urban and rural. Due to variation in number of urban and rural areas disproportionate sampling technique has been used to select urban and rural schools. Stratification has been done on boys and girls to include them into two groups.

Selection of the teachers was done by following simple random technique and disproportionate stratified sampling has been used for urban- rural and male- female. In selection of parents disproportionate stratified sampling technique has been followed and stratification has done to consider the variable as urban- rural and male – female to include into two groups.

3.5(b) Variables of the present study

The population and samples have been collected from heterogeneous groups for the research study, the variables of the study also posses same characteristics. For the convenience of the study the investigator divided the population into two groups. The division was based on one or more criteria, e.g., male- female; boys- girls; rural- urban and so on.

The major stratification of the variables of the present study could be represented as following
3.6 Tools for Data Collection

To find out the authenticity of research there is a need to apply a wide variety of tools. There are number of methods and procedures to collect relevant data for any kind of research study. These tools employ distinctive ways of describing and quantifying the data. Each one is particularly appropriate for certain sources of data, yielding information of the kind and in the form that can be most effectively used.

In order to collect primary data the investigator have selected and developed the following tools for the present study.

1. Teacher Attitude Scale towards Inclusive Education – by, Dr. Vikash Sood
2. Self Structured Scale for Students has been standardized
3. Self- Structured Scale for parents has been standardized
The present study has been done on both primary and secondary sources of data. The investigator personally visited the SSA office at Barpeta District and IS office, Barpeta as well as different Educational Blocks and schools of Barpeta District to collect relevant data and information related to the present study.

3.7 Description of Research Tools

3.7(a) Teacher Attitude Scale towards Inclusive Education

The main purpose of the scale is to measure the attitude of elementary school teachers (teaching classes’ from 1-8) towards inclusive education. For development of the attitude scale, the’ method of summated ratings’ as given by Linkert (1932) has been employed. Each item/statement of the scale is to be rated on three consecutive points i.e. agree, undecided and disagree. An individual teacher’s score on the attitude scale is the sum total of his/her ratings on all statements/items. The areas of attitude scale have four broad areas, based on different vital aspects of inclusive education. They are:

Psychological/ Behavioral Aspects– This area is comprised of statements reflecting the predispositions of teachers with respect to influence of inclusive education on psychological or behavioral characteristics of school children. These predispositions are mainly related to the effect of various inclusive education strategies and techniques on students’ cognitive and affective characteristics.

Social and Parent- Related Aspects of Inclusive Education– This area includes the statements concerning teachers’ inclinations or feelings with regard to influence of inclusive education on development of social values among
school children. It also covers statements related to teachers’ ideas regarding social and parental support for promoting inclusive education in general educational institutions.

Aspects of Inclusive Curricular and Co-Curricular Education– This component is related to teachers’ dispositions, notions or ideas about teaching-learning methodologies adopted in schools to impart education in inclusive settings. It also includes teachers’ feelings about various curricular and co-curricular activities organized by them in schools to promote inclusive education.

Administrative Aspect of Inclusive Education– Teachers’ disposition towards various governmental provisions as well as commitment of administrative machinery for implementing inclusive education for schools are included in this area. It includes statements related to various infrastructural and other facilities available in educational institutions, provision for teachers’ training and their utility for making inclusive education, a success.

The items are scored in such a manner that if the answer to a favorable item is ‘Agree’, a score of 3 is given; for ‘Undecided’ option, a score of 2 and for ‘Disagree’ option, a score of 1 is answered. On the other hand, in case of unfavorable items, the above scoring procedure is reversed. The sum of scores on all statements of the scale is considered as respondent’s total attitude score.
### Table - 5 -Showing the ranges of level of attitude

<table>
<thead>
<tr>
<th>Sl No</th>
<th>Values</th>
<th>Range of Scores</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Extremely High</td>
<td>+2.01 and above</td>
</tr>
<tr>
<td>2</td>
<td>High</td>
<td>+1.26 to =2.00</td>
</tr>
<tr>
<td>3</td>
<td>Above Average</td>
<td>+.51 to 1.25</td>
</tr>
<tr>
<td>4</td>
<td>Average/Moderate</td>
<td>-.50 to +.50</td>
</tr>
<tr>
<td>5</td>
<td>Below Average</td>
<td>-1.25 to -.51</td>
</tr>
<tr>
<td>6</td>
<td>Low</td>
<td>-2.0 to -1.26</td>
</tr>
<tr>
<td>7</td>
<td>Extremely Low</td>
<td>lowest to -2.01</td>
</tr>
</tbody>
</table>

Norms and interpretation of z-scores and finding of the level of attitude of teachers towards inclusive education is based on the range of the z-scores.

### 3.7 (b) Self- Structured Scale to measure the Attitude of Students

A self-constructed scale to measure the attitude of Students has been developed. The scale contains 24 items. The items have been scored on the basis of ‘Favorable’ and ‘Unfavorable’. The scoring procedure was similar as the Teacher’s Attitude Scale. The scale has been administered on Children with Special Needs (CWSN) students of elementary level.

**Content Validity**

Initially 30 items were selected to measure the attitude of Children with Special Needs (CWSN). Finally 6 items were discarded on recommendation of the experts. To find out content-validity of the scale the investigator sends the
scale to three experts related to the subject matter and administered only after
the approval of the subject-expert.

Reliability

In order to find out reliability coefficient, test – retest method has been
applied. The present scale was administered on a total of 100 samples and after a
gap of 15 days the scale was re administered on the same group. The correlation
between two scores was calculated by Spearman- Brown formula that was found
0.819.

3.7(c) Self – Structured Scale to measure the Attitude of Parents

A self-constructed scale to measure the attitude of Parents has been
developed. The scale contains 24 items. The items were scored on the basis of
‘Favorable’ and ‘Unfavorable’. The scoring procedure was similar as the
Teacher’s Attitude Scale. The scale has been administered on parents of both
rural and urban areas.

Initially 30 items were selected to measure the attitude of parents. Finally 6 items were discarded on recommendation of the experts. The number
of final items was 24 as these showed their representatives and consistency in
determining the scores of the attitude of the parents towards inclusive education.

Content validity

The investigator decided to find out the content validity of the scale to
determine if the items selected for the scale could measure the attitude of the
parents that it intends to measure. To find out content-validity of the scale the
investigator send the questionnaire to three experts related to the subject matter and administered only after the approval of the subject-expert.

Reliability

In order to find out reliability coefficient, test – retest method has been applied. The present scale was administered on a total of 100 samples and after a gap of 15 days the scale was re administered on the same group. The correlation between two scores was calculated by Spearman- Brown formula that was found 0.715.

Personal Information Schedule- Self Structured for the Heads of the Institutions

It is a two-way process to collect relevant information regarding CWSN students and teachers as well as the status of the school. Some important information like – nature of disability of the CWSN, number of teachers in the school and number of trained and untrained teachers, aids and appliances distributed to the SEN children and number of students available in the school were collected with the help of information schedules for the Heads.

3.8 Statistical Techniques

One of the most essential parts of research study is the analysis of data. The objectives of the study, research questions and hypothesis formulation help every researcher to carry out the study. Analysis of the data helps to find out the conclusion and obtain research questions and test the hypothesis if any.

Collection of data through various tools and techniques by the researcher are of lesser use as the raw data contains no meaning. To organize, classify and tabulate the
collected data the researcher needs help of statistical techniques so that he or she can apply them as per as the purpose of the study.

Following statistical techniques have been applied to interpret and analyze the collected data for the present research study:

1. Simple Mean
2. Percentage
3. Standard Deviation
4. Graphical Representation
5. Z-Score

Data analysis has been done on SPSS.

In Barpeta District, there are 7 (seven) Educational Blocks, namely- Barpeta, Bhawanipur, Bajali, Chenga, Mandia, Rupsi, and Sarbhog. There are 1663 lower primary and 264 upper primary Schools in Barpeta District. The selection of schools from four (4) blocks has been made as follows:

**Table - 6 Showing Total Numbers of Schools**

<table>
<thead>
<tr>
<th>Sl No</th>
<th>Blocks</th>
<th>No of Schools</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Barpeta</td>
<td>33</td>
</tr>
<tr>
<td>2</td>
<td>Bhawanipur</td>
<td>34</td>
</tr>
<tr>
<td>3</td>
<td>Gobardhana</td>
<td>12</td>
</tr>
<tr>
<td>4</td>
<td>Rupsi</td>
<td>31</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td></td>
<td><strong>110</strong></td>
</tr>
</tbody>
</table>