CHAPTER – III

METHODOLOGY

Karbi Anglong is a hill district and the rural areas of the district are more backward in comparison to other plain districts of Assam. It is very difficult to carry out research work in the district. In this chapter an attempt is being made to discuss the methodology adopted for the present study. For this study the data were collected both from primary and the secondary sources. The present research work was done involving both descriptive and analytical methods. The primary data were collected from field survey and personal interview was taken from students, teachers, parent/guardians and administrators of the district with the help of questionnaire. The secondary data were collected from books, reports, journals and official records. The data have been analyzed qualitatively and quantitatively on the basis of the nature of the data.

3.1 Nature and Description of Data:

The data require for the present study have been collected from various sources such as Head masters/ teachers of the primary schools of Karbi Anglong

district, children studying in primary schools in the district, parents/guardians of the primary schools students and educational administrators of primary education of the district. Besides these, secondary data have been collected from various sources such as – government office, organisation, institutions, websites, books, journals, periodicals, Doctoral Dissertation to achieve the goal of the study. The methodological diagram of the study is shown in table – 3.1.

Table – 3.1

Methodological Description of the Study

Objective of the study	Description of the Tools/Technique	Sources of Data	Nature of Data
To examine the development of primary education in Karbi Anglong district.	Official records, Census report, books, research journals, dissertation etc.	Secondary	Quantitative
To examine the present status of primary education in Karbi Anglong with regards to physical facilities, curriculum development, teachers' qualification, teaching methods, medium of instruction, examination and evaluation system.	Official records, Census report, books, research journals, dissertation etc. A questionnaire schedule is prepared for the Head master/teachers, pupils and parents/guardians.	Both Primary and Secondary	Quantitative and qualitative
To study the social, economical and educational status of the parents/guardians of the primary schools children	A questionnaire schedule is prepared for the parents/guardians.	Primary source	Qualitative and quantitative

of Karbi Anglong district.			
To study the problems for achieving the universal primary education in the district.	Three problem check lists are prepared for the Head Master/ teacher, parent/ guardian and pupil.	Primary source	Qualitative and quantitative

The investigator visited some government offices, non government organisations and institutions, library of various universities and institutions for the collection of secondary data. For the collection of primary data the investigator visited 177 primary schools and personally met head masters/teachers and pupils and collected related information from them. The investigator also visited some villages and personally met some guardians/parents and collected relevant primary data from the parent/guardian respondents.

3.2 The Target Population:

In the present study all the teachers of the government and provincialised primary schools of Karbi Anglong district, pupils of primary schools, parents and guardians of the primary school students selected from all communities of the district. The main aim of the study is to find out household, academic, social, economic and administrative problems of the primary school students of Karbi Anglong district. In order to collect data, random sampling method is being applied. There are three sub-divisions i.e. Diphu, Bokajan and Hamren sub-divisions in Karbi Anglong district. There are four blocks-Lumbajong, Howraghat, Samelangso and Langsomepi under Diphu sub- division, three blocks- Bokajan, Nilip, and Rongmongwe under Bokajan sub-division and four blocks- Chinthong, Rongkhang,

Amri and Socheng under Hamren sub-division. From each sub-division two blocks have been selected which can represent the entire samples. These blocks are Lumbajong and Howraghat blocks of Diphu sub-division, Bokajan and Nilip blocks of Bokajan sub- division, Chinthong and Rongkhang blocks of Hamren sub-division. There are 197, 194, 204, 147, 167 and 227 Lower primary schools in Lumbajong, Howraghat, Bokajan, Nilip, Chingthong and Rongkhang blocks respectively in the district. Ten percent of the total primary schools of Karbi Anglong district and fifteen percent primary schools from six blocks have selected for the present study by applying random sampling method. The total numbers of 177 schools, 177 teachers, 354 students, 354 parents/guardians have been covered for the study. Apart from the selected schools, personal interview have been taken from educational administrators, curriculum constructors etc. where necessary.

3.3 Sampling:

Sampling is the process of selecting a sample from the total population. It is the process through which it is possible to draw valid inferences or generalisation on the basis of careful observation of variables within a relatively small proportion of the population. In the present study purposive sampling technique has been adopted by the investigator. There are 1772 primary schools in Karbi Anglong district and there are eleven educational block in the district. Block wise highest number of schools are found in Lumbajong and Howraghat block of Diphu sub-division, Bokajan and Nilip block of Bokajan sub-division, Chinthong and Rongkhang Block of Hamren sub-division. Two blocks have been selected from each sub-division and fifteen percent schools from each block have been selected for this study. The total number of 177 teacher, 354 pupil, 354 parent/guardian and 18 educational administrators have been selected from the entire district for the present

study. The block wise selection of teachers, pupils and parent/guardian's samples are shown in table – 3.2.

Table – 3.2

Classification of the samples

Name of the Block	Type of samples		
	Primary School Teacher	Parent/Guardian of Primary School pupil	Pupil of Primary School
Lumbajong	31	62	62
Howraghat	29	58	58
Bokajan	32	64	64
Nilip	25	50	50
Chinthong	26	52	52
Rongkhang	34	68	68
Total	177	354	354

There are altogether 177 teachers, 354 students and 354 parent/ guardians have been selected from six educational block of the district. The total sample is 885.

3.4 Tools:

The standard and quality of research depends on the use of valid and reliable tools use for the research work. There are two types of tool generally use by

the researcher for the investigation. Standardised tool and self developed non standardised tool. In this study the investigator used both the standardised and self develop non standardised tool for the investigation.

3.5 Preparation of Questionnaire and Problem Check List:

Questionnaire is a tool which consists of numbers of questions relating to the problems selected for research, sending to the sample for seeking answers of those questions. The term questionnaire and schedule may be considered equivalent for present purposes, although sometimes a technical distinction is made. The questionnaire is generally regarded as a form distributed through the mail or filled out by the respondent under the supervision of the investigator or interviewer, whereas the scheduled is a form filled out by the investigator or completed in his presence. It is a tool, basically descriptive in nature, which claims to pool the data – qualitative and quantitative as well, regarding the problems of a certain group of people or of an individual.

In this study a questionnaire schedule is prepared for the primary school teachers of Karbi Anglong district to collect the information regarding personal information of the teachers, physical infrastructure of the schools, academic information, curricular and co-curricular activities, medium of instruction, teaching learning process, examination and evaluation system of the primary school. A problem checklist also prepared for the teachers to chalk out the major problems of the primary schools of the district. Another questionnaire schedule and problem

checklist is prepared for the guardian to find out personal, household, social and economic information of the family. Similarly another questionnaire schedule and problem checklist also prepared for the pupils to collect various academic information and problems of the schools.

3.6 Purpose of the Questionnaire and Problem Check List:

In the present study, one of the most important objectives is to identify the problems faced by the students and teachers of primary schools of Karbi Anglong district in the process of formal education. To study their existing problems in the field of education relating to home, school and society by the primary school students and teachers of Karbi Anglong district.

3.7 Emergence for Designing the Questionnaire and Problem Check List:

There are good numbers of questionnaire tools available in the field of Education and Psychology, but no suitable tool has been found to study the problems faced by the primary school students of Karbi Anglong district. Therefore, the investigator had felt the need to develop a new questionnaire to fulfil the present objective of the study. The investigator has developed the tool with consultation of the existing questionnaire and problem check list developed by different experts in the field of educational research and with the supervisor and experts. To explore the problems faced by the primary school children of Karbi Anglong, in the field of education relating to home, school, teacher, society and the problems in general at the primary stage, the present tool has been developed by the investigator.

3.8 Construction Procedure:

In questionnaire construction important decisions related to motivation of the respondent, significance of the questions, simplicity of responses, avoidance of unnecessary specifications or details, pertinence to the situation of the respondent, clarity of purpose and questions, phrasing of items to facilitates summarization of responses and possible pre-coding of the questionnaire in the interest of using tabulating machine cards for summarisation. To construct the present tools five dimensions were specified, which may be considered as component of the present scale. The categorisation of dimensions of the tool has been selected on the basis of nature of the problem faced by them at the primary school level in Karbi Anglong district. The dimensions of the tools may be mentioned in the following way.

(i) Problems related to home environment.

(ii) Problems related to school environment.

(iii) Problems related to teaching and learning.

(iv) Problems related to curriculum and co-curricular activities.

(v) Problems related to examination and evaluation.

Though the above mentioned dimensions of tool have been identified, still some dimensions or components have remained unidentified in the present tool due to number of reasons. Because, above mentioned dimensions are found very frequently and common in the problem list faced by the primary school teachers and pupils of Karbi Anglong district. Keeping ahead the objective of the study, the investigator prepared 125 items, twenty five from each dimension at the beginning. After the pilot project some unnecessary and less important items was rejected from the list.

In the present questionnaire some items were prepared with having just Yes/No responses and in some specific cases some items were prepared having multiple responses and some questions are open ended. In case of preparation of the problem check list an attempt was made to cover the above mentioned five dimensions and the major problems generally faced by the primary school students, teachers and parents/guardians of Karbi Anglong district. In problem check list there are three responses against each question i.e., always, most of the times and not at all. The respondent has to put a tick (√) mark wherever required.

3.9 Pilot Study:

Before pilot study, the draft tool was sent to the experts for their comments and it was discussed with the supervisor, to modify the items. After getting comments and suggestions from the supervisor and experts, the investigator discarded some items and made the final draft consisting of ninety one items in questionnaire schedule for the teacher, forty three items for parent/ guardian and forty seven items for student, with consultation to the supervisor.

For the pilot study the questionnaire schedule prepared for the students was administered on a group of sample consisting of fifty students studying at the standard IV and standard V of Karbi Anglong district. The students were selected representing from all the major communities of the district. After collecting the questionnaire schedule from the sample group response rate of each item were analysed and some unsuitable items were rejected. The questionnaire schedule prepared for the head master/ teacher was administered on a group of sample consisting of thirty teachers serving in the government and provincialised primary schools of Karbi Anglong district. Similarly the questionnaire schedule prepared for

the parent/guardian was administered on a group of sample consisting of thirty parents/ guardians from different socio-economic background and representing from different communities of Karbi Anglong district. Then the tools were administered on the sample groups thrice and the number of items was reduced several times and then the final draft of the questionnaire was made.

3.10 Reliability and Objectivity of Questionnaire:

The data obtained by the draft questionnaire was both qualitative as well as quantitative in nature. The reliability of the tool was observed during the administration of the tool on the sample group. When the tool administered thrice on the sample group, the obtained by it was checked and no difference was found. From this it is referred that the reliability of the tool sufficiently possesses. Though a little fluctuation was observed in the obtained data which was due to the number of items, but in final draft sufficient reliability was observed when it was re-administered on the sample group.

Quantitative data analysis ensured the objectivity of the questionnaire, whereas both qualitative and quantitative data analysis ensured the reliability of the questionnaire to a great extent. In the process of ensuring the consistency of the responses towards the items of the questionnaire, valuable opinions from the experts and also from the eminent educationist were taken into consideration which ensures the researcher about the reliability of the tool.

3.11 Validity of the Questionnaire:

Validity of the tool was ensured by the method of content and face validity. The pattern of the questionnaire revealed its face validity, as the questionnaire was prepared on the basis of socio-economic, cultural and educational background of Karbi Anglong district. When the experts analysed the items in details then content validity was found. Because the items of the questionnaire represents all the dimensions selected for study.

Besides, in every phase of analysing the items during repetitive try out, the logical validity of the questionnaire was gained by checking the items, because the unit, questions incorporated in the questionnaire are directly concerned with the conceptions and components of the problems for which the questionnaire is intended to measure. Problems identified by the questionnaire also observed among the primary school children in Karbi Anglong district which ensured the predictive validity of the questionnaire. So, it is found that the questionnaire prepared for the primary schools teachers, students and parents of Karbi Anglong district reflect all types of validity, as it was developed ensuring its face validity, content validity, logical validity and predictive validity.

3.12 Standardization of Questionnaire:

After determining the validity and reliability of the items of the questionnaire, it was further standardized by re-arranging the items in a systematic way, with a view to the dimensions identified and objectives of the study.

3.13 Analysis of the Data:

The investigator visited the schools and personally met the teachers, students and parents/guardians and collected the information with the help of questionnaire. Both qualitative as well as quantitative analysis is being made in the data obtained through the questionnaire. The response of most of the objective type questions are 'yes' or 'no' and the data obtained through objective questions was analysed without allotting any numerical score. The date obtained multiple choice items were analysed through qualitative and quantitative way. The data obtained through the tool has been analysed and interpreted systematically by using statistical method such as tally mark, percentage and through graphical representation.

3.14 Problem Checklist for the Study of Problems Faced by Student, Teacher and Parent:

Checklist is a selected list of words, phases, sentences or paragraphs following which an observer records a tick or check mark (√) to denote the presence or absence of whatever is being observed. The checklist may include item which represent expected desirable or undesirable forms of behaviour, a sequence of skills associated with a given operation or a group of ideas. Problem checklist is a device to check the problem faced by the subjects in a specific field.

3.15 Purpose of the Problem Checklist:

To achieve the objectives of the study, to identify the problems faced by the primary school teachers, students and parents of Karbi Anglong district with regards to education, the present problem checklists have been prepared.

3.16 Construction Procedure:

Before constructing the problem checklist, the investigator had gone through various related literature to know the nature of the problems of primary school students, teachers and the parents of Karbi Anglong district. Besides, the investigator consulted with some teachers, parents, guardians, experts, self observation etc. to know the nature of the problems and to realise the problems faced by the students, teachers and the parents of the district. After having consultation with the various sources the investigator initially identified some dimensions to which the problems are related. The investigator initially prepared 50 problem statements for teacher, 50 problem statements for students and 50 problem statements for parent. Then the draft tool was discussed with the experts, teachers and supervisor to make sufficient modification and some problem statements were modified, a few rejected and a few new problem statements were included. The problem statements were systematically arranged in such a way that the respondent could give their response or they could checkout the problems which they frequently and rarely faced in their practical life. Finally, 37 problem statements were selected for the teachers, 31 problem statements for students and 28 problem statements were selected for parents.

3.17 Reliability and Objectivity of the Problem Checklist:

Data gathered by problem checklist was quantitative in nature and no difference was found in the data, in the first and the second tri-out of the draft checklist. So, it ensured that data gathered by this tool from the sample has consistency, which confirmed the reliability of the tool. Besides, suggestion and comments obtained by the tool also ensured the reliability of the tool. The

construction procedure and the nature of this data gathering tool itself ensure objectivity of the problem checklist.

3.18 Validity of the Problem Checklist:

After discussion with the experts, teachers, students and parents it ensured that the present tool possesses sufficient validity. It means the present tool will serve the purpose for which it has developed. The present tool revealed face validity, content validity, logical validity and predictive validity. The pattern of Checklist revealed its face validity so far the purpose of the tool is concerned.

Logical validity was gained when the individual item was analysed, during the repetitive administration. The predictive validity of the problem checklist was ensured through the process of comparing the data obtained from some of the respondents and observing their practical life situations. Besides, validity of the tool also gained from the experts comments regarding the problem checklist. The experts expressed their satisfaction so far the validity of the content of the final form of the problem checklist is concerned.

3.19 Standardization of the Problem Checklist:

After try out the tool, the statement of the tool were re-arranged systematically and enough scope was given to the respondents to specify the problem in the last phase of the checklist, which ensured the standardisation of the tool.

3.20 Analysis of Data Obtained through the Problem Checklist:

The data obtained by the problem checklist is quantitative in nature. So, a statistical technique was applied to analysed the quantitative data such as graph, percentage etc. Detail analysis procedure has been given in the chapter - IV.

3.21 Editing:

Editing of data is a process of examining the collected raw data to detect errors and omissions and to correct these for maintaining accuracy, usefulness and completeness when possible. Editing involves a careful scrutiny of the completed questionnaires and questionnaire schedules. It is done to assure that the data are accurate, consistent and valid with other facts gathered, uniformly entered as completed as possible. Generally, the researcher has to use two types of editing – field editing and central editing. In the present study the investigator used both the field editing and central editing procedure. While collecting data in the field the investigator sometime use abbreviation or illegible hand writing at the time of recording the responses of the respondents due to time constraint and other difficulty. So, the investigator reviewed the reporting forms for completing these types of short cuts and made necessary modification as soon as possible after the interview on the very day or on the next day. This type of field editing helps to maintain reliability and consistency of the collected data and to avoid errors and confusion.

Central editing was done by the investigator when all completed questionnaire schedules and problem checklist was collected from the field. A thorough study of the collected questionnaire and the problem checklists was given by the investigator and necessary correction was done such as an entry in the wrong place, entry recorded in month when it should have been recorded in weeks and like these. Some items of the questionnaire and problem checklists were not responded by the respondents and some answers are not clear and appropriate. In such cases the investigator edited the responses and an editing entry of ‘no answer’ was considered. All the wrong replies, which are quite obvious was dropped from the final results.

3.22 Coding:

Coding refers to the process of assigning numerals or other symbols to answer so that responses can be put in to a limited number of categories or classes. Coding is necessary for efficient analysis and through it the several replies may be reduced to a small number of classes which contain the critical information required for analysis. Generally, coding decision should be taken at the designing stage of the questionnaire. In this study the investigator used a few simple coding in the questionnaire schedule and problem checklist list at the time of data collection.

3.23 Classification:

Classification refers to dividing of the data into different categories, classes, groups or heads. In research classification is done by researcher on the basis of the nature of the problem, the hypotheses to be verified and characteristics of the selected samples. In the present study the collected raw data have been arranged in different groups on the basis of common characteristics. For example, total number of male and female teachers, caste wise number of teachers, groups on the basis of educational qualification of the teachers etc. Similarly, the parents have been classified on the basis of literacy, age, sex, occupation, income etc.

In the present study data have been analysed on the basis of different classification and categories. Basically data have been classified in five groups- problems related to home environment, problems related to school environment, problems related to teaching and learning, problems related to curriculum and co-

curricular and problems related to examination and evaluation. The collected primary have been analysed on the basis of this classification.

3.24 Tabulation:

Tabulation is very much important for the researcher to arrange the huge data in some kind of concise and logical order. Tabulation is the process of summarising raw data and displaying the data in compact form for further analysis. It is an orderly arrangement of data in columns and rows. Tabulation conserves space and reduces explanatory and descriptive statement to a minimum. Tabulation facilitates the process of comparison between two or among different attributes in related research and summation of items and the detection of errors and omissions. Tabulation can be done by hand or by mechanical or electrical devices. The choice depends on the size and the type of study, cost consideration, time pressures and the availability of tabulating machines and computers. In relatively large enquiries, the researcher use mechanical and computer tabulation if other factors are favourable and necessary facilities are available. Hand tabulation is usually preferred in case of small inquiries where the number of questionnaires is small and they are of relatively short length. In the present study both the hand and machinery tabulation have been used by the researcher.

In the present study, after collection of primary and secondary data the investigator used hand tabulation to systematise and analyse the raw data. The investigator used the tally mark from each questionnaire sheet and problem checklist against a particular attribute or the response given by the respondent of a particular question. The codes or the attributes were written on a sheet of paper or the tally sheet and for each response a stroke was marked against the code in which it falls.

After every four strokes against a particular attribute or code, the fifth response was indicated by drawing a diagonal line through the strokes and these groups of five were easy to count and the data were sorted against each code conveniently. In the present study three questionnaire schedules and three problem checklists were used for collection of primary data from teacher, parent and student. The investigator first completed the tabulation of all the questionnaire schedules answered by the teacher respondents, then the questionnaire schedules answered by the parents respondents and next the questionnaire schedules answered by the student respondents where the tabulation was required. After completing the tabulation of all questionnaire schedules answered by the teacher, parent and student respondents, the investigator started the tabulation of problem checklists answered by the teacher, parent and student respondents. There are three responses against each problem statement and accordingly tally sheets were prepared for each problem statement and entire tabulation process was completed systematically.