CHAPTER - IV

METHODS AND PROCEDURES

4.1 Introduction:

Effectiveness of any research depends on the methodology and procedure adopted in the study. A sound and well-organized methodology includes the appropriate strategy in stepwise execution of the investigation. It leads to the investigator to the target he/she aims at. A good research always follows a sound methodology and procedure otherwise the findings of the study of generalization of facts lead nowhere. So, it is desirable to draw a plan of study to provide answers to research questions. The working out of a plan involves making certain decisions with respect to

(1) Approach
(2) Population and sample
(3) Data gathering instrument
(4) Procedure of collection of data
(5) Analysis of data, statistical treatment and
(6) Interpretations and conclusions.

In this chapter an attempt has made to provide a brief description of the theoretical considerations,
methods and procedures followed in the present study and to find out the existing conditions of general higher education in Southern Assam.

4.2 Approach:

The present study employed the "Normative Survey method" including exploration of documents. Survey studies are conducted to collect detailed description of existing phenomenon with the intent of employing data to justify current conditions and practices and to make more intelligent plea for improving them. The objectives of such studies are not only to analyze, interpret and report the status of institution, group or area in order to guide practices in the innovative feature but also to determine the adequacy or status by comparing with established standards.

Survey study may take different forms depending upon the problem under investigation. They may be broad, or narrow in scope. Some surveys encompass several countries, states or regions or may be limited to one country, region, state district or city or some other unit. Survey data may be collected from survey unit of population or from a representative sample. The
information gathered may be concerning a large number of related factors or may be confined to few selected items.

The present study has five objectives as mentioned earlier. Assumption was drawn in respect of the objectives. The study intended to describe some selected components in the working of the colleges of Southern Assam, and to identify the areas of the strengths and weaknesses, and finally to suggest measures for remedy of the defects that are likely to help them to move with their future plan to achieve Quality in all aspects of their activities.

Looking at the nature of the problem under study and the objectives fixed, the investigator intends to choose a survey type descriptive design. An approach of assessment and evaluation may be followed wherever necessary to supplement the survey. The descriptive survey type studies are 'non-experimental, for they deal with the relationships between non-manipulated variables in a natural, rather than artificial setting.'

The present study employed an appraisal procedure with respect to documentary analysis of the historical perspectives of general higher education in Southern Assam, which will give a correct fixture of the
existing conditions of the colleges affiliated to Assam University. In finding out the real conditions of the colleges of the five districts of Southern Assam, certain procedures had been designed and adopted. While designing the problem, a concept or meaning of the terms "higher education", 'Southern Assam' and "Critical Study" were required to be defined. The objectives of the study as well as the scope of the study with its limitations were also given. The methodology applied, the sample designed, the hypothesis framed and its testing with the help of research tools were laid down. In order to make the study more systematic, simple arithmetic and statistics in terms of percentages and averages were used.

A sample survey was conducted with 200 college teachers, 25 principals, and 620 students covering 25 colleges of the five districts of southern Assam. A college information schedule, two questionnaires, one for the teachers and the other for the students, and a problem check list were the tools used to collect the necessary data from the principals, teachers and the students followed by random interaction.

Besides these, the investigator interviewed and interacted with some prominent educationists and
experts such as, retired principals and experienced teachers who were closely connected with the system of education prevalent in this region. This was done because sometimes the person who is interviewed gives the needed information orally and face to face instead of writing the response. Certain types of confidential information in which, an individual might be reluctant to put in writing. The 'advantage of interviewing is that the interviewer can explain more explicitly the investigators purpose and just what information he or she wants.'

4.3 Population:

It is necessary to provide a clear picture of the population. A population refers to any collection of specified group of human being or of non-human entities such objects, as educational institutions, time, units, geographical areas and so on. Some statisticians call it universe. The whole group from which the sample has been drawn is known as the universe or population. As stated by Guildford (1981) the term "population" includes all sets of individuals, objects or reactions that can be described by having a unique combination of qualities. Population or universe is defined to be the
totality of objects under consideration, which can be specified in terms of an entity or defined characteristics of the entity. In the present study, the population is comprised of colleges of Southern Assam, teachers serving there, principals, and students of different type of colleges e.g. government funded, Affiliated grant-in-aid and unaided permitted (venture) based on the Districts, Subdivisions, rural and urban areas. The population also includes the experts; e.g. retired principals and teachers of different institutions who were interviewed.

4.4 Selection of Sample:

The primary purpose of research is to discover principles that have universal application, but to study a whole population, to arrive at generalization would be impracticable, if not impossible. "Some populations are so large that their characteristics cannot be measured. Before the measurement could be completed, the population would have changed. The study of a population of large size would require the services of thousands of researchers, and it would require a huge amount of money. Hence a sampling is required."

"A sample is a small proportion of population selected for observation and analysis. By observing the
characteristics of the sample, one can make certain inferences about the population from which it is drawn. The sample selected from population must be representative, adequate and free from bias, so that the data gathered can provide reliable estimates and inferences about the attributes of population that is studied. To get the real and true representation of the population, a sample was systematically and scientifically selected after taking into consideration the different population characteristics.

The study is limited to five districts of Southern Assam ie., Cachar, Karimganj, Hailakandi, North Cachar Hills and Karbi Anglong having nine subdivisions, one each at Karimganj and Hailakandi; two in Cachar and North Cachar Hills and three subdivisions in Karbi Anglong districts. Sample was choosen from each subdivision taking atleast two colleges(whenever the number of colleges permits) by employing probability method of sample. Random sampling technique was followed. The number of colleges imparting general education in Science, Arts, and Commerce are 42. But it was not possible for the investigator to collect information from all the colleges of Southern Assam. So the final sample consisted of 25 colleges ie, 57% of the
total colleges of Southern Assam under Assam University. All the principals and teachers of the 25 colleges were included in the present study. The sample consisted of the 25 principals, teachers and students of the respective colleges from where the sample was drawn. 25% of the total teachers and 8.02% of students were drawn from both the rural and urban and government, grants-in-aid (affiliated) and unaided (permitted) colleges as sample. For the purpose of the study the following sample has been taken management wise:

2 government colleges from two districts ie 100%.
10 grants-in-aid (affiliated) out of 18 i.e. 56%.
13 unaided (permitted) college out of 22 i.e. 55%.

The sample consists of the principals, the teachers and the students of the respective colleges from where sample was drawn. So, the selected sample included teachers and students from all the districts and subdivisions, government (Affiliated), Aided (Affiliated) Unaided (permitted) colleges till 2002. Following table shows the distribution of sample colleges.
Table-11

Size of population and sample colleges.

<table>
<thead>
<tr>
<th>Dist</th>
<th>Sub-division</th>
<th>Total no. of colleges</th>
<th>Number of sample colleges</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Govt</td>
<td>Aided</td>
<td>Unaided</td>
</tr>
<tr>
<td>Cachar</td>
<td>1. Silchar</td>
<td>8</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td></td>
<td>2. Lakhipur</td>
<td>1</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>Karimganj</td>
<td>1. Karimganj</td>
<td>4</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td>Haiakandi</td>
<td>1. Haiakandi</td>
<td>4</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>NC. Hills</td>
<td>1. Hailung</td>
<td>1</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>2. Mibong</td>
<td>1</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>Karbi</td>
<td>1. Diphu</td>
<td>1</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>Anglong</td>
<td>2. Bokajan</td>
<td>3</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>3. Hamrem</td>
<td>3</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total 5</td>
<td>9</td>
<td>2</td>
<td>18</td>
<td>22</td>
</tr>
</tbody>
</table>

Source: college development council, AU

Thus the size of the sample colleges is approximately 60%, which represents the colleges of both urban and rural and hill areas of respective districts and subdivisions of Southern Assam.

The present study also includes the teacher and students as its population. So sample was drawn from the above-mentioned 25 colleges of Southern Assam. Table-12 indicates the nature and type of sample for both the teachers and students of the sample colleges.
Table—12

Nature and type of sample for the teachers and students.

<table>
<thead>
<tr>
<th></th>
<th>Teachers</th>
<th></th>
<th></th>
<th></th>
<th>Students</th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Govt</td>
<td>Aided</td>
<td>Unaided</td>
<td>Total</td>
<td>Govt</td>
<td>Aided</td>
<td>Unaided</td>
<td>Total</td>
</tr>
<tr>
<td>Population</td>
<td>119</td>
<td>414</td>
<td>157</td>
<td>690</td>
<td>1308</td>
<td>5322</td>
<td>1097</td>
<td>7727</td>
</tr>
<tr>
<td>Sample</td>
<td>30</td>
<td>130</td>
<td>40</td>
<td>200</td>
<td>65</td>
<td>500</td>
<td>55</td>
<td>620</td>
</tr>
</tbody>
</table>

As indicated in Table—12 out of 119 (i.e. 25%) teachers from the Govt colleges, 130 out of 414 (i.e. a little more than 30%) teachers from the aided (Affiliated) colleges and 40 out of 157 teachers (25%) were included in the sample. So the total sample for teachers is 200.

So also in the case of students. 65 out of 1308 (5%) students from the Govt. colleges, 500 out of 5322 (i.e. approximately 10%) from the aided (affiliated) colleges and 55 out of 1097 (5%) students from the unaided (permitted) colleges. Now the total sample for the students is 620.

4.5 Tools:

The success of a research depends upon the tools used and the methods followed in conducting the study.
A systematic method was followed in selecting and developing the tools for the present study are given below.

To start with all the available researches carried out in relation to the present study were studied thoroughly. The tools and techniques used in such studies were actually examined. After reviewing the available conceptual as well as the research literature and discussing with the experienced persons in the field, it was decided to develop

(I) Questionnaire cum information schedule for the principals

(II) Questionnaire for the teachers, and

(III) Questionnaire for the students.

The researcher intends to develop such type of tools because principals are the key person of an educational institution, teachers are the backbone, and the students are the main stakeholder of the institution. So each of the important components was selected to examine in the present study as they are supplementary to each other.

4:6 Information Schedule:
Information Schedule is a systematic list of items prepared for the purpose of collection of related data/material for each item from the person concerned to whom it is distributed.

4.6.1 Information schedule cum Questionnaire for the principals:-

The investigator developed a Questionnaire-cum-Information Schedule for the heads of the institutions (Principal of the college) by constructing relevant questions seeking information in the five major parts.

(I) The first part includes questions relating to the general information of the college, which includes questions, like name of the college, year of establishment, type of the college, number of faculty in the college, number of students, teachers and the year of UGC recognition.

(II) The second part includes questions relating to infrastructure and learning resources, like type of college building, campus area, built up area, library, computer and internet facility, Reprography, facility to prepare audio-visual and other teaching aids, Departmental library, conference hall, facilities available in the sports.
(III) The third part includes questions relating to the financial status of the colleges, sources of financial grant, resources and resource generation, fee structure of the college.

(IV) The fourth part includes questions relating to the organization and management of the college, policies and practices in the matter of planning, human power requirement, management technique and technology for running administrative and academic decision-making.

(IV) The fifth part includes questions relating to the academic and related matters like goals and objectives of the college, type of academic programmes, courses offered by the college, methods of teaching learning, Research and extension activities and faculty development programme of teachers, and extra curricular activities.

4.7 Questionnaire:

Questionnaire is a device consisting of a series of questions dealing with some psychological, social, educational etc topic(s) sent or given to an individual with the object of obtaining data with regard to some
problems under investigation. Good and Hatt (1953, P33) say that in general, the word “questionnaire” refers to a device for securing answers to a series of questions by using a form which the respondent fills in himself. Bar et al (1952, p65) define questionnaire as a systematic completion of questions that are administered to a sample of population from which information is desired.

Questionnaire is a popular means of collecting data in research. It is widely used in educational research to obtain information about certain conditions and practices and to enquire into opinions and attitudes of individual or a group. A questionnaire is either administered personally to a group of individuals or it is mailed to them.

The objective of preparing the questionnaire was to find out the present conditions prevailing in the colleges of Southern Assam under Assam University.

After reviewing the all-available literature conceptual as well as research, and after discussing with experienced persons in the field, it was decided to develop questionnaires for college teachers and
students. The area was then discussed with the supervisor, who being an expert in the field and finally a list of such items were identified.

4.7.1 Questionnaire for the Teachers:-

The questionnaire for the teacher was used to collect information on the five major parts, which was included in the Information Schedule for the Principal. Though the major areas was similar, yet attempt was made to include such necessary items which can help to draw a clear picture of the conditions and functioning of the colleges as envisaged in the objectives of the study. The questionnaire was used to collect the following information:-

Part I Seeking information on academic qualification and other related introduction.

Part II Information were sought about adequacy of infrastructure and learning resources available in the institution to maintain the quality and other aspects of academic activities of the college.

Part III In this part, questions relating to college’s financial stability in the form of pay & allowances, regularity/irregularity in payment of salary, superannuation benefit, problems related to finance
in higher education and sources of resource generation were included.

Part IV Information relating to participation of teachers in academic, administrative, organizational and financial management of the college was sought in this part. Teachers were asked to identify some of the crucial factors, which are essential and integral part for quality enhancement in the college.

Part V Regarding academic aspects, information was sought on courses and programmes, methods used for teaching, evaluation pattern, co-curricular and extra curricular activities, Research and Extension, opportunity for professional and faculty development.

4.7.2 Questionnaire for the students:

Questionnaire for the students was used to collect opinion/information on the three areas. Of these, questions were asked on two major areas viz, infrastructure and learning resources and academic related aspects. As students are the main stakeholders of an academic institution, so their opinion stand as foremost importance to examine the validity of the inputs from the principals and teachers and finally to
arrive at a conclusion. Thus the questions are as follows:-

1. The first part dealt with questions seeking general information like name, sex and courses taken for study.
2. Second part included questions on the adequacy and availability of the infrastructure and learning resources of the college and the optimal benefit obtained from them.
3. The last part dealt with questions seeking opinion regarding academic related matters like attitude towards teachers regarding academic progress, courses and programmes, extra curricular and co curricular activities and fee structure of the college. Questions were also included to obtain opinion in regard to the opening of self-financing job oriented courses and provision of computer training. The number of questions in each section along with the kind of information required for the study from the principals, teachers and students is tabulated as under:-
Table no -13

Table showing distribution of questions, along with the kind of information for the principals/Teachers and students.

<table>
<thead>
<tr>
<th>Section</th>
<th>Information</th>
<th>No. of Questions</th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>For Principals</td>
<td>Teachers</td>
<td>Students</td>
<td></td>
</tr>
<tr>
<td>Part I</td>
<td>General information of the college</td>
<td>9</td>
<td>5</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>Part II</td>
<td>Infrastructure and Learning Resources.</td>
<td>13</td>
<td>6</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td>Part III</td>
<td>Financial status and Resources of the college</td>
<td>8</td>
<td>5</td>
<td>—</td>
<td></td>
</tr>
<tr>
<td>Part IV</td>
<td>Organization and Management</td>
<td>4</td>
<td>3</td>
<td>—</td>
<td></td>
</tr>
<tr>
<td>Part V</td>
<td>Academic and related information</td>
<td>9</td>
<td>11</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>Total parts 5</td>
<td></td>
<td>43</td>
<td>30</td>
<td>10</td>
<td></td>
</tr>
</tbody>
</table>

(The Questionnaire in its complete form are appended in Annexure No 1,2,3)

4.8 The Interview:

"The interview is in a sense an oral questionnaire. Instead of writing the response, the subject or interviewee gives the needed information orally and face to face."^5

In some cases interview is often superior to other data gathering devices because people are usually more willing to talk than to write. Interview can be used for those areas where human motivation is revealed through actions, feelings and attitudes. If the interviewer is skillful a depth of response is possible that is quite unlikely to be achieved through any other
means. This technique helps the investigator to explain more explicitly the purpose of the investigation and can have just information he or she wants. Another thing is that if the subject misinterprets any question, the interviewer may follow it with a clarifying question. Some significant areas can be explored which are not anticipated in the original plan of investigation.

So, side by side with the questionnaire, the interview method was also used to have a clear conception of the actual need of the study. A checklist was also prepared to overcome the gap of the technique used.

4.9 Observation:

As a data gathering device direct observation may make an important contribution to descriptive research. Certain types of information can best be obtained through direct examination by the investigator.6

The investigator had visited a number of educational institutions of higher education and had observed the working of those institutions in detail. She recorded her observation on the spot for analysis and interpretations.
4.10 Official Records:

The investigator has consulted the relevant records in the offices of Assam University as well as in the offices of some colleges. Statistical Handbooks published by the Department of Economics and Statistics, Census Report have been preserved and used in the thesis.

4.11 Library:

Library plays an important role in this scientific age of knowledge explosion. New knowledge is always coming up in almost all the fields. Library is a place where all the old and new information is stored. It is impossible to carry out any research work without coming into contact with any library. So, the researcher used some available books, thesis paper and journals from different libraries. Extensive use of the central library of Radhamadhab College, Assam University, Gauhati University, NEHU and the library of Teachers Training College, Silchar have been made in the preparation of this thesis.

4.12 Encyclopedia and Dictionary:

Encyclopedia Britannica and Encyclopedia of educational Research and Dictionary of Education
edited by C.V Good have been consulted whenever considered necessary.

4.13 Periodicals, Journals, Articles and Booklets:

Some periodicals and weekly journals published by AIU and NIEPA were also consulted. Articles published in University news, Yojana, Education Today, Economic and political weekly, Seminar and UGC News letter were thoroughly consulted which helped a lot to get the current and up to date information. Some information was also collected from ACTA journals published in various years.

4.14 Meeting with Educationists:

Some eminent educationists of the region were consulted and their views were recorded with gratitude.

4.15 Visits to the Institutions and officers:

The investigator visited some institutions and offices with a view to obtain some information relating to the study. The offices and institutions which were visited are as follows:

(1) Office of the Inspector of schools, Silchar.
(2) Directorate of education, Assam, Guwahati.
(3) UGC office, Guwahati.
(4) The district Library, Silchar. Assam.
(5) Libraries of Guwahati University, Guwahati. North Eastern Hill University, Shillong, Assam University, Silchar, Teachers Training College Silchar.

(6) Office of the Controller of Examination, A.U. Silchar.

(7) Office of the college Development Council, Administrative Branch, Assam University Silchar.


(9) District Information Centre, Silchar.

(10) The colleges, which have been selected as samples.

4.16 Preparation of the testing form of the Questionnaire and Information Schedule:

Both the Questionnaire and Information Schedule were prepared by the researcher as no suitable comprehensive standardized data gathering tool was available to study the different aspects of the problem. While preparing the tools, the researcher consulted many experienced teachers, principals, researchers, Experts, and with some close students also. Questions as many as possible, were then prepared. While preparing the questions, the characteristics of a good
question was kept in mind. Attempts were made to include only such items in the questionnaire which cannot be obtained from other sources, such as records, reports or census data. Each question has been made as short as possible. As will be seen from the questionnaire, some items were inserted seeking information in details which were considered highly necessary, while others were put together data in brief, the reason for this is that some factors were considered highly necessary to influence upon the quality enhancement of the college, and accordingly their investigation was detailed, while such other factors as were considered less likely to influence but relevant received less emphasis in the questionnaire. Each question deals with single idea. Questions were worded as simple and as clearly as possible. It was neatly printed and duplicated. The prepared questions were subject to experts comments. Then a few questions were dropped and some modified questions were incorporated. Prior to expert opinion, there were 35 questions for the teachers and 13 questions for the students. Finally, 30 and 10 questions were found to be alright for teachers and students respectively. There were 46 questions in the information Schedule for the
Principals. Then 30 questions for teachers, 10 questions for students and 43 questions for the Principals were selected and included in the final draft of the questionnaire. (Which is shown on the Table no.13)

4.17 Procedure for data collection and processing:

4.17(1) Administration of the questionnaire-cum information Schedule:

A systematic procedure was followed to collect the required data. Adequate numbers of copies of the questionnaire and information schedule in English version were prepared. The data was collected in three phases. The information schedule was administered to the selected principals of 25 colleges, questionnaire was administered to 200 college teachers and 620 students of the sample colleges. Copies of the final version of the questionnaire and information schedule were distributed to the selected principals, college teachers and students with appropriate instructions. The investigator contacted and personally visited all the 25 sample colleges, their principals, teachers and students. They were requested to fill in each and every
question of the questionnaire. The respondents were explained the objective of the study and given necessary instructions to fill up the questionnaire. The investigator also interviewed them and noted the information/comment on separate sheets. The investigator requested the respondents to answer all questions expressing freely and objectively, their opinions and views about the various issues relating to their colleges. The respondents were assured that the information supplied by them will be kept confidentially and will be used for the research purpose only. But in spite of the earnest desire of the researcher data/opinion could not be collected specially from some students for want of cooperation.

4.17 (II) Statistical treatments of the data:-

The data collected through the different sources were tabulated and analyzed according to the nature of the questions. The item-wise analysis was carried out for the data obtained through the questionnaire and information schedule. The obtained data were analyzed in terms of frequency and percentage.
References:

1) Best, John, W. --- "Research in Education VIth Edition Pp 89
   Prentice Hall of India Pvt. Ltd

2) Ibid --- Pp 291

3) Ibid --- Pp 10

4) Ibid --- Pp 10

5) Ibid --- Pp 201

6) Ibid --- Pp 174