CHAPTER – III

METHODOLOGY

3.0 Introduction

"Research may be defined as the systematic and objective analysis and recording of controlled observations that may lead to the development of generalisations; principles or theories resulting in prediction and possibly ultimate control of events." The phenomena studied in educational and social research do not readily lend themselves to quantification or exact measurement. In the behavioural sciences, generally, survey methods such as the historical, the descriptive or normative approaches are adopted more frequently as compared with experimental methods. Surveys cover the ground to be explored providing detailed information regarding some prevailing state of affairs describing salient features regarding what has been explored in the course of the study.

After selecting the problem framing the objectives and reviewing the related literature, the next important step in research is to explain the details of the various steps followed in the research design.

3.1 Research Design:

The method of investigation depends upon the purpose of the study. The present study aims at an analysis of learners' choice of course in relation to their motivation, study habits and family background with specific reference to distance
education programme of University of Madras. From the objectives of the study it is evident that it has an inherent survey purpose: survey of the variables related to the object of the study.

3.2 Survey Design:

The survey design is necessary for the collection of facts and the collation of information relevant to the problem investigated. In educational research, the aim and purpose of the educational survey is to bring to light many facts which will point to the need for refinements and improvements in the educational system. Selection, formulation and definition of the problem, survey of related information, collection, analysis and interpretations of data and reporting the work done as well as the action necessary are steps of procedure common to all types and methods of research.

3.3 Normative Survey:

As this study intends to collect data pertaining to motivation, study habits and family background of distance education learners, it is Normative method of survey. The word survey indicates the gathering of data regarding current conditions. The present study requires a method that can establish the nature of existing conditions by means of obtaining informations about the problem. Hence, the Normative survey method was found suitable and was adopted for this study.
Normative studies describe and interpret conditions, relationships or practices belonging to the present. The investigator is concerned with what is taking place and not with what had occurred. The distinctive fact about the normative survey is that research interest centres round the nature of something that is typical of the things observed of the data collected.

Three sorts of informations are of interest in a normative survey. First, informations regarding prevalent conditions or current practices. In order to get this information, it will be necessary to observe, study and analyze different aspects of the present situation. Secondly, the normative survey ought to indicate the nature of the ends of goals that are desired and sought. The investigator might also critically evaluate the objectives desired and may arrive at a conception of the objectives that ought to be kept in view. Thirdly, the means whereby the objectives are obtained or can be attained would constitute an important aspect of the enquiry. Here again, there might be a description of the means adopted in order to achieve certain goals along with an evaluation of these means with regard to the manner in which they are helpful in the attainment of those goals. It is often necessary in a normative survey to take account of past conditions and from what is evident regarding the present to provide useful suggestions regarding future events. The normative study ought to be forward looking and provide some ground for planning for the future
3.4 Development and Validation of the Tools used for the Study:

**Questionnaire**

To get responses regarding motivation, study habits and family background of distance education learners a survey questionnaire with various aspects such as motivation, study habits and family background has been administered by the investigator. The data were collected from 504 second year undergraduate students of distance education programme of University of Madras from the disciplines Maths, Commerce, History, Economics, Psychology, Geography and Language.

The various parts of the questionnaire are following:

I. **Personal Data:** (open and closed ended questions regarding the bio-data of the learners). The items in the personal data are extended to collect information regarding age, sex, residential area, course of study and medium of instruction of the respondents.

II. **Family Background:** (open and closed ended questions regarding the family background of the learners). There are about fourteen items which the investigator has developed to collect responses regarding the family background of distance education learners.

III. **Motivation:** (Items regarding the motives of the learners to join the course in Distance Education). There are thirty four items with respect to motivational aspects of learners which were developed by the investigator for the present study serving the purpose of the study.
IV. Study habits: (Items regarding the prefer study habits of the learners). There are fifty items covering many areas of study habits, originally designed by "PALSANE AND SHARMA" (1989) in the "PALSANE AND SHARMA STUDY HABITS INVENTORY" which the investigator has adopted for the present study after modification of some of the items such as 3, 7, 8, 19 and 41 and inclusion of five new items in addition.

Questions were prepared in simple language to seek responses from the learners. Each respondent was asked to select one of the alternatives i.e., A, B and C for each item listed therein on motivation and study habits. The alternatives allotted three, two and one mark(s) respectively.

Construction of Identification of Motivation Level Tool:

For construction of identification of motivation level tool, the investigator has gone through the literature dealing with the studies on motivation. After reviewing the related literature and referring the book on advanced psychology the nature and characteristics of motivation have been identified and listed.

After listing the nature and characteristics of motivation, the items are prepared by the investigator based on this list. The items thus prepared are subjected to jury opinion. The panel consists of ten professors of psychology and five lecturers who are connected in the field of psychology especially in the area of motivation. They were asked to check
whether the items constructed for the tool reflect the operational versions of concepts related to motivation.

On the basis of jur: opinion some items are developed; Some are modified and finally fifty items are selected for the tool.

These statements are then submitted to a panel of judges requesting them to scrutinise the statements for the clarity, relevance and appropriateness to distance education learners and validity in terms of the operationalisation of the preferences, the remarks offered by the judges are considered and minor modifications in the structure, in the lexical items relating to nature and characteristics of motivations are made.

Pilot Study:

The tool so refined consists of hundred items was then administered to fifty distance education learners. The main purpose of the pilot study is to ensure comprehensibility of the items to the students. The difficult items were elucidated and difficult sentences were altered and modified into easy language of understanding. Thus the tool was finalized with thirty four items.

Scoring Procedure:

The options given are agree, do not know and disagree. The thirty four items in the motivational aspect are pertaining to the positive aspect of motivation and motivation related
environment which may cause motivation among the learners. Hence, the scores for the positive items for the responses agree, do not know and disagree will be 1, 2 and 3 respectively, whereas for the negative items the scores will be in the reverse orders.

The Reliability of the Tool

The reliability of the tool is measured by test and retest method. One month after first test, the retest was conducted to fifty students, twenty five males and twenty five females. The reliability of coefficient of correlation for the low motivation level was .89 and medium level motivation was .67 and the coefficient of correlation for the high motivation level was .71. These coefficients suggests that the test possesses reliability to a significant level.

Validity of the Tool:

(i) Concurrent Validity: The Concurrent Validity of the tool was found out by finding out the relationship between Motivational Analysis Test (MAT) prepared by the 'SWENEY and CATTELL' (1986) and the investigator's motivational tool. The co-efficient of correlation was found to be .762.

Thus the research tool prepared by the investigator possesses considerable validity.

(ii) Content Validity: After reading the different statements related to motivation, the items related to motivation were constructed by the investigator. Then these items were subjected
to jury opinion. The juries correlated and changed few items, which proves the motivational level of the students. The discussion related to preparation of items for constructing the tool, motivational analysis was made and finally the tool was framed and finalized. Thus, the content validity of the tool was calculated.

Study habits Inventory:

The items of the inventory belong to the following areas:

1. Budgeting Time - It is very important to plan the budget of study time. Time schedule helps to adjust the study periods and other activities according to the needs of the individual. The best way to budgeting the time is to keep the record of all activities throughout the day for one week. The analysis of this diary will help in budgeting the time. By budgeting time, students can optimise their success in study as well as their extra curricular activities.

2. Physical Conditions for Study - Physical conditions play an important part in study habits. The place for study should be calm and quiet. It should be clean and there should be proper illumination and ventilation. Furniture should be comfortable. There should be sufficient light. One should use diffused light. Study table should be clean and contain only and all the necessary things e.g., papers, pen, books pencil, etc.

3. Reading Ability - Reading is the basic skill in any kind of study. Reading ability includes various factors as good
vocabulary, speed of reading, comprehension, independent selection of appropriate material for reading and locating information. One should be able to read at least 300 words per minute in his mother tongue, 75 to 100 words in any foreign language. One must try to build up a good vocabulary by remembering the precise meaning of the words. Speed of reading is also an important factor. Silent reading is always faster than loud reading. It's necessary to adjust the speed of reading according to the importance of matter. Technical material requires more time than usual one. An individual should try to understand what he is reading. He should try to remember the ideas he has grasped while reading and should be able to summarise the main ideas.

4. Note Taking- Taking notes in the classroom is an important learning activity. Taking notes from book also helps a great deal in study. There are different ways of taking notes. One may copy everything from text book. One may take down only important paragraphs or one may take down the headings and subheadings and important key paragraphs to make an outline. Paraphrasing in one's own words and summarising is supposed to be the best way of making one's notes. It is a good practice to combine classnotes and notes from books to make a final note. With the help of regular practice note-taking can become a habit.

5. Factors in Learning- Motivation - Apart from ability to learn, desire to learn is an important consideration. If one is genuinely interested in learning he may learn quickly and retain
it for a long time. There are individual differences in capacity to learn. Everybody can improve with extra efforts. Spirit of competition and co-operation helps in learning. One learns better in a group.

6. Memory - Improving memory means learning better. Distributing learning periods is preferable to continuous or massed learning. The better we learn the longer we retain. Overlearning helps in remembering for a longer period.

7. Taking Examinations - Most of our examinations are of essay type where a few questions are given and students are required to write long answers. It is good to prepare an outline and arrange the ideas properly following a logical pattern of presentation. Use of simple language is advisable. Separate ideas should be discussed in paragraphs. Headings and sub headings should be properly placed. Important words and phrases may be underlined.

(i) Preparation for Examination - One should devote more time and attention to his weak points. A time schedule for study should be prepared. If one is regular in his study habits he is already prepared for the examination. Calm, cool and relaxed attitude towards the examination is necessary and can be achieved only after a good preparation.

(ii) Use of Examination Results - From the results one can find out his strong and weak points. Knowledge of results can motivate an individual and direct his efforts.
8. Health - Regular and healthy habits of eating, exercise, recreation and sleep help in maintaining good health and sound mental state which is necessary to achieve success in the examination.

Administration of the Inventory:

The inventory can be administered to individuals as well as in groups of 25 to 50. Still large numbers can be handled with the help of assistant supervisors and the public address system (Loud speakers).

The subjects should be seated comfortably and as far as possible should not have a chance to talk to other students or glance at their answers. There should be good ventilation and light in the room.

By explaining the purpose of the test, the supervisor should try to get full cooperation from the students. The inventory is self-administering. All the instructions are printed on the front page of the inventory.

Scoring Procedure

The items in the aspect are intended to measure the study habits of the learners and learning environment. Hence the positive items will get the scores of 1, 2 and 3 for the responses always, sometimes and never respectively whereas for the negative items the scores will be in the reverse order.
Reliability

The reliability of the inventory was determined by two methods:

(i) The reliability coefficient was found to be .88 by test retest method (with an interval of 4 weeks) on a sample of 200 male students of undergraduate classes.

(ii) The reliability coefficient was found to be .67 with an interval of 3 months on a sample of 60 girls studying in intermediate classes.

(iii) Using split half technique on 150 boys of intermediate and undergraduate classes, the coefficient of correlation was found to be 56 between odd and even items.

Validity

The inventory, besides having a high face validity, has the other validity Coefficients which are given below:-

(a) With External Criterion (Similar type of Study habit Inventories)

<table>
<thead>
<tr>
<th>Name of other tests</th>
<th>N</th>
<th>Validity Coefficients</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Study Habit Inventory</td>
<td></td>
<td></td>
</tr>
<tr>
<td>- Mukhopadhyaya and Sansanwal</td>
<td>80</td>
<td>.69</td>
</tr>
<tr>
<td>2. Test of Study Habits and Attitudes</td>
<td></td>
<td></td>
</tr>
<tr>
<td>- C. P. Mathur</td>
<td>80</td>
<td>.67</td>
</tr>
<tr>
<td>3. Study Habit Inventory</td>
<td></td>
<td></td>
</tr>
<tr>
<td>- B. V. Patel</td>
<td>80</td>
<td>.74</td>
</tr>
<tr>
<td>4. Study Involvement Inventory Inventories</td>
<td></td>
<td></td>
</tr>
<tr>
<td>- Asha Bhatnagar</td>
<td>80</td>
<td>.83</td>
</tr>
</tbody>
</table>
The above Validity Coefficients indicate that the inventory has sufficiently high validity with other similar inventories and allied measures by other authors and have significant relationship with other variables which influence the study habits and academic performances.

3.5 **Interview Schedule for Learners:**

In order to fulfil the objectives proposed in the study a suitable interview schedule was constructed. A critical review of literature pertaining to the hypothesis was made and appropriate variables were identified. Sex, age, residential area, subject of specialisation, medium of instruction, marital status, size of the family, number of children, occupation and income were considered as demographic variables. The target population was rural and urban combined. All the variables identified were translated into comprehensive items as indicators of research object.

3.6 **Sampling Procedure:**

Since in dealing with larger groups or populations an enumerative study of each single member is rarely feasible or even necessary. The typical survey entails the selection of a sample or cross-section of the whole for the purpose of direct minute observation. This sample should be clearly representative of the population to be studied; ideally it is an exact replica of the larger group of which it forms a part. At the same time, the sample must be larger enough in terms of the whole group and of the problem being studied to yield reliable results.
The sample of the present study comprised 504 distance education learners including male and female from the Institute of Correspondence Education, University of Madras studying second year undergraduate courses during the academic year 1992-93 with one of the following main subjects: Maths, Commerce, History, Economics, Psychology, Geography and Language using purposive sampling technique.

The data were collected from Madras centres of the personal contact programme of the University of Madras through survey method based on specially designed schedule, the other centres being Vellore, Thiruvannamalai and Coimbatore.

3.7 Profile of the Respondents:

Considering the total sample population (504) majority of the distance education learners (82.9%) were in the age group of <25 years. The enrollment of female learners (50.8%) was higher than the male learners. It is encouraging that the sample is female dominated. Majority of the respondents were commerce (B.Com.,) students (64.9%). The number of Tamil medium learners (333) was greater than the English medium learners (171). The learners from rural areas (54.2%) were more than those from urban areas (45.8%). Most of the learners (86.5%) belonged to Hindu religion.

Of the total sample population, backward class students (57.3%) were more than S.C./S.T., students (6%). Most of the respondents (87.3%) were unmarried. As far the occupation, majority of the learners (56.5%) were unemployed. Only about
37.5% of the learners were salaried. Monthly income of the family was upto Rs.1000/- for 44.8% of the respondents. Majority of the learners belonged to big family (> 4 members).

3.8 Statistical Analysis:

Before analysing the data, the responses to the items in the questionnaire were suitably coded for computerisation. The following statistical analyses such as Descriptive statistics (Mean and Standard Deviation), Differential Analysis (F-test and t-test) and Association Analysis (Chi-square and Contigency) have been done in this connection. The details of which are given in the next chapter (Chapter V).