

CHAPTER

IV

METHODOLOGY

-
- 4.1 OBJECTIVES OF THE STUDY
 - 4.2 THE HYPOTHESES
 - 4.3 POPULATION AND SAMPLE
 - 4.4 TOOLS
 - 4.5 DATA COLLECTION
 - 4.6 SYSTEM OF DATA ANALYSIS
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CHAPTER IV

METHODOLOGY

The present chapter deals with the methodology of the present investigation. In the beginning of the chapter the objectives of the present study have been discussed in details and hypotheses have been presented in null form. The detailed methodology that was used with respect to the sampling design, development of tools, collection of data, data processing and statistical techniques have been discussed in the subsequent pages.

4.1 OBJECTIVES OF THE STUDY

1. To study the following characteristics of the students -

a. who pass the HSC examination and enter into higher education,

b. who pass the HSC examination but do not enter into higher education:-

(i) Background Characteristics /

- a. Sex
- b. Home Location
- c. Religion
- d. Stream of Study
- e. Birth Order
- f. Age

(ii) Socio-Economic Background /

- a. Socio-Economic Status
- b. Nature of the Family
- c. Family Size
- d. Education of the Siblings
- e. Students' Residence

(iii) Home Environment /

(iv) Academic Performance /

(v) Educational Aspirations /

(vi) Occupational Aspirations /

(vii) Co-curricular Interests /

(viii) Institutional Adjustment /

(ix) Achievement Motivation /

2. To ascertain if entry into higher education is associated with each of the following characteristics :
 - (i) Sex, (ii) Home Location, (iii) Religion, (iv) Stream of Study, (v) Birth Order, (vi) Age, (vii) Fathers' Education, (viii) Mothers' Education, (ix) Fathers' Occupation, (x) Family Income, (xi) Socio-Economic Status, (xii) Nature of the Family, (xiii) Family Size (xiv) Education of the Siblings, (xv) Students' Residence (xvi) Home Environment, (xvii) Academic Preformance at HSC, (xviii) Academic Performance at SSC, (xix) Educational Aspirations, (xx) Occupational Aspirations, (xxi) Co-curricular Interests, (xxii) Institutional Adjustment and (xxiii) Achievement Motivation.
3. To have an indepth study of the students :
 - a. who have entered higher education and
 - b. who have not entered higher education
 with respect to their perception regarding higher education, motivational and aspirational aspects and reasons for not entering higher education etc.

4.2 THE HYPOTHESES

The second objective of the present study requires proposing a set of logical relationship between entry into higher education and the characteristics. On the basis of the theoretical frame work described in Chapter III, the hypotheses for the present investigation have been formulated.

There are many forms of presenting a hypothesis viz., research hypothesis, operational hypothesis, statistical hypothesis, and null hypothesis. As in the present investigation, the hypotheses have to be tested by empirical evidence for their confirmation or rejection within the theoretical framework, they should be presented in a testable form. The best testable form which is more specific and convenient for any empirical study is "null hypothesis". Thus, the following set of null hypotheses have been formulated.

1. The entry into higher education is independent of sex.
2. The entry into higher education is independent of home location.
3. The entry into higher education is independent of religion.
4. The entry into higher education is independent of stream of study.
5. The entry into higher education is independent of birth order.
6. The entry into higher education is independent of age.
7. The entry into higher education is independent of fathers' education.
8. The entry into higher education is independent of mothers' education.
9. The entry into higher education is independent of fathers' occupation.
10. The entry into higher education is independent of family income.
11. The entry into higher education is independent of socio-economic status.
12. The entry into higher education is independent of nature of family.
13. The entry into higher education is independent of family size.
14. The entry into higher education is independent of the education of siblings.
15. The entry into higher education is independent of students' residence.
16. The entry into higher education is independent of home environment.
17. The entry into higher education is independent of academic performance at HSC examination.

18. The entry into higher education is independent of academic performance at SSC examination.
19. The entry into higher education is independent of educational aspirations.
20. The entry into higher education is independent of occupational aspirations.
21. The entry into higher education is independent of co-curricular interests.
22. The entry into higher education is independent of institutional adjustment.
23. The entry into higher education is independent of achievement motivation.

4.3 POPULATION AND SAMPLE

The present investigation is descriptive as well as exploratory in nature, empirical in character, longitudinal in design and involves a large number of variables. As the objectives of the study were to describe the characteristics of two groups of students i.e., college entrants and non-entrants, it was necessary to select a large sample including a cross section of population having the characteristics which are assumed to affect college entry and achievement. Thus the sample includes rural and urban boys and girls, muslim and hindu students from different streams and socio-economic strata and students from different types of institutions. The sampling technique employed to draw a suitable sample is discussed in the pages that follow.

Bangladesh is an unitary state having one language and similar culture everywhere. Geographically it is also uniform except for small hills in Chittagong Hill Tracts area. The basic administrative units are districts - made mainly from the view point of maintaining law and order and revenue collection. At present, there are 74 districts in Bangladesh. The whole population of the country is more or less uniformly

distributed over these districts. The education system is the same throughout the country. The SSC and HSC examinations are conducted by four Boards. The syllabi and the text books are the same. All the degree and professional colleges are affiliated to three general universities viz., Dhaka University, Rajshahi University and Chittagong University - these, too, are having almost similar courses and syllabi. The population for the present investigation is the entire student community at HSC level in all the 74 districts of Bangladesh. But as stated earlier, the education system is the same all throughout the country, any one of the districts of Bangladesh, except 4 in Chittagong Hill Tracts region which have only 0.86 per cent of the total population of Bangladesh, can be a representative sample for any study. For the present study, the investigator has selected two districts - Faridpur and Rajbari as the sample for the investigation. The rationale for that is, since the study is a follow-up one, information regarding passing HSC and then college entry was necessary from all the respondents. This could be done by personal visits only. Faridpur and Rajbari districts have been selected for the sample, as it was convenient for the investigator because of his long association with the area to travel all over the districts for collecting data and follow up the non-entrants specially, for conducting interviews for indepth study.

In Bangladesh, higher secondary i.e., Class XI and XII are taught in Intermediate and Degree colleges and in very few higher secondary schools in big cities. In Faridpur and Rajbari districts, there are no higher secondary schools and higher secondary is taught in Intermediate and Degree colleges only. In the present investigation, the sampling units were the institutions and colleges. All the nine colleges of Faridpur district and the main one, out of the three colleges of Rajbari district were selected for the present study. The break up of these colleges is shown in Table 4.1. The list of colleges is presented in Appendix - 1.

TABLE 4.1
BREAK UP OF SAMPLED COLLEGES

Classification		No. of sampled colleges	Total Number
1. Type	(a) Co-educational	9	10
	(b) Girls	1	
2. Location	(a) Rural	6	10
	(b) Urban	4	
3. Management	(a) Government	4	10
	(b) Non-government	6	
4. Nature	(a) Intermediate	2	10
	(b) Degree	8	

All the students of class XII of the three streams of these colleges comprised the target sample. At the date and time of data collection those who were present at that particular class were the respondents. The over all sample composed of 1325 respondents. These were the students who had appeared at the HSC examination of 1985.

Of the total 1325 respondents :

- 711 students failed
- 614 students passed, of whom
- 466 students entered into higher education
- 148 students did not enter into higher education

} Uniborn

It was expected from previous knowledge that in a traditional society like Bangladesh, boys and girls would differ in their characteristics and that different factors would act differentially in respect to their entry into higher education. As the students choose their stream of study at the secondary stage in a view to fulfil their educational and occupational aspirations and future goals, it was also expected that students of different streams viz., arts students, commerce students and science students would differ in their characteristics and different factors would influence their college

entry in different ways. Thus it was decided to carry out the investigation and analysis for total sample as well as separately for boys and girls and for arts, commerce and science students. In order to describe the characteristics of the two main groups viz., entrants and non-entrants and to test the association between entry into higher education and the characteristics, the total sample was classified in two mutually inclusive ways. The details of the sample are shown in Table 4.2.

TABLE 4.2
CLASSIFICATION OF RESPONDENTS

Classification	Category	Entrants	Non-entrants	Failure	Total
Sex	Boys	349	84	527	960
	Girls	117	64	184	365
	Total	466	148	711	1325
Stream of Study	Arts	169	72	318	559
	Commerce	73	25	150	248
	Science	224	51	243	518
	Total	466	148	711	1325

For indepth study at least five per cent from each group were selected randomly. Thus, a sample of 30 entrants and 16 non-entrants were selected randomly.

4.4 TOOLS

The present investigation was descriptive and exploratory in nature and was designed to gather information and also empirical evidences in order to test a series of hypotheses proposed under caption 4.2. Thus, it was imperative that the selected variables should be measured quantitatively. This could be done by suitable tools which yield scores for each variable and for each respondent. Besides the background variables, suitable and appropriate tools were necessary to

measure the variables viz., (i) Socio-Economic Status (SES), (ii) Home-Environment, (iii) Educational Aspirations (iv) Occupational Aspirations, (v) Co-curricular Interests (vi) Institutional Adjustment and (vii) Achievement Motivation.

There is no research undertaken related to present study in Bangladesh whereas a few variables having some relation with the present study have been studied separately in other contexts in India. Understandably, few ready-made tools were available for measuring some of the variables. But all of them were not found suitable for the present study, since some of them were either outdated or irrelevant to the locale of the study. Hence, some available tools were modified in the local context while others have been developed by the investigator.

To develop completely standardized tools for the variables would be a task beyond the capacity and scope of any single investigation. Therefore, each of those instruments constructed in this investigation may not be regarded as a finished product. It is a starting point for further research rather than ready-made tools patented. Nevertheless, every effort was made to develop the tools, scientifically as far as possible to yield satisfactory measures. The tools were developed in such a way that they yield scores, but according to the necessity of analysis, some of them or at least some dimensions of a particular tool could be used as nominal scales also. In construction of the tools, various usual steps such as scrutiny of the different available tools, method of construction, weightages, scoring, reliability, validity etc. were followed. In the following pages, the tools that were used for the present investigation are described in detail.

The tools which were adopted, modified or constructed were in English. These were translated into Bengali. For the authenticity of translation and clarity of the language, Bengali versions of all the tools were shown to three language experts and on the basis of their suggestions, appropriate modification of the language was done.

4.4.1 Socio-Economic Status Scale

a. Available Tools :

No tool was available to measure the SES of Bangladeshi families. Since, there is a close resemblance between the social, economic and cultural conditions of Bangladesh and India, some existing SES tools were reviewed. From a thorough search it was found that Kuppuswamy (1962), Verma (1962), Kulshreshta (1972), Srivastava (1978), Rao (1977), and Rao (1982) developed tools which are meant for urban population, while Rahudkar (1960), Freeman (1961), Pareek and Trivedi (1961), Shimpurker (1967) prepared scales for measuring SES of rural families.

Though more than 85 per cent of the total population of Bangladesh reside in rural areas, most of the colleges are situated in urban areas. So, the children of rural families are studying alongwith the children of urban families in the colleges. Thus a common scale was necessary to measure the SES of Bangladeshi college students. Aaron et al. (1960) developed a common SES scale for rural and urban families of India. He took five indicators of SES viz., (i) father's occupation (ii) father's education (iii) material possession (iv) house and (v) shirts and blouses. It is very strange that the important indicator like income has been omitted. Thus, this tool is likely to be less objective. So, in the absence of a suitable common SES scale to measure the SES of Bangladeshi college students, the investigator decided to develop his own tool.

b. The Present Tool :

(i) Preparation

Determinants of Socio-Economic Status (SES) : It is generally agreed that the SES is a complex variable and the determinants of SES are multiple. Specially, in a developing country like Bangladesh, where the society is undergoing a rapid change and the traditions and values are fast changing, it is very difficult to assess the status of an individual or of a family. A single factor like income, education, occupation or

social participation of the parents cannot give the correct picture of the SES of a family.

Several variables were used by several researchers throughout the world to evaluate the SES of an individual or of a family. Among the variables, the most important are (i) education, (ii) occupation, (iii) income, (iv) type of housing and locality, (v) possession of property, (vi) social interaction etc.

As stated earlier that the SES is a very complex variable, the indicators of SES vary from country to country, society to society, region to region, place to place and even from person to person. These indicators are considered to be different from one another, though one may not exist without the other. But the question arises about the relative importance of the indicators. If, for instance, education is considered more important than income, it would be advisable to give higher weightage to education than to income. Similarly, different weightages may be given to each of the five indicators, depending upon their relative importance.

The problem was to determine the relative importance. There are hardly any studies which determine the relative weightages of the determinants of SES. Moreover, vital question like whether the education and occupation of a mother affect the SES of a family in Bangladeshi society is of quite relevance because Muslims who comprise of more than 86 per cent of the population are hesitant to send their girls to educational institutions and job market. On the basis of the discussion with the educationists and sociologists from Bangladesh and India, the investigator assigned equal weightages to each of the five dimensions of the SES scale, and the mother's education and occupation also had been taken into account for the dimensions of 'education' and 'occupation' respectively.

From the study of the related literature and review of the widely reported SES tools in India and abroad, the

investigator decided to study the following five dimensions of SES;

1. Education of the parents.
2. Occupation of the parents.
3. Income of the family.
4. Property of the family.
5. Cultural level and social participation of the family.

The educational level of the family is determined by the level of education of father and mother. The occupational position of the family is also determined by the occupation of father and mother. Income of the family is the total monthly income from all sources. Property includes agricultural land and house possessed by the family and household contents. Cultural and social status includes the cultural activities of the family and the positions held in various socio-cultural, organisations by the parents.

Items : In the present tool, 10 items were set to measure the above mentioned five dimensions of SES. The SES scale is presented in Appendix-III and the weightages are shown in Appendix-IV. The arrangement of items in the SES scale is shown in table 4.3.

TABLE 4.3

ARRANGEMENT OF ITEMS OF SES SCALE

Dimension	Number of Items	Item Numbers	Possible Score	
			Maximum	Minimum
1. Education	1	1	20	0
2. Occupation	1	2	20	0
3. Income	1	3	20	0
4. Property	3	4, 5, 6	20	0
5. Cultural level and social participation	4	7, 8, 9, 10	20	0
Total	10	1 to 10	100	0

Equal weights

(ii) Scoring

As mentioned above, in the context of Bangladeshi socio-economic setting, it was decided to determine the status of education, occupation, income, property and cultural and social position separately and the composite score of SES would be the sum of the scores of these five dimensions.

Educational Status Score : The weightages assigned to the two indicators of educational status viz., that of father and mother are the same for any given qualification. In item 1, the seven categories of qualifications are arranged in order of difficulty from illiterate to anydegree. Instead of writing the names of all the degrees, the last one i.e., "any degree" was kept open and the respondents were asked to name the degree. The weightages assigned vary from 0 to 10. Thus, the minimum and maximum scores of either father or mother are 0 to 10 respectively. The educational status score was taken as sum of the scores of father and mother and the minimum and maximum can be 0 and 20 respectively.

Siblings?

Occupational Status Score : Instead of putting the list of occupations or classifying them into several categories, which may seem cumbersome and also might be difficult for the students to select the correct occupations of their parents; item 2 provides two open alternatives for responses. Of these two, one is service and another is own independent occupation, and the students were asked to specify fully the occupations of their parents. However, for the purpose of scoring, the major occupations are classified into eight categories in continuum of prestige of occupation. The weightages assigned to them vary from 0 to 10. The weightage of any given occupation is same for both father and mother. Thus, the minimum and maximum scores of either father or mother are 0 to 10 respectively. The occupational status score is the sum of the scores of father and mother and the minimum and maximum can be 0 to 20 respectively.

Income Scores : For income score item 3 provides 9 alternatives, and has a minimum score 0 and a maximum score 20 depending upon the total income of the family from all sources.

Property Score : This dimension has three components viz., (i) agricultural land possessed by the family, (ii) ownership and type of house and (iii) household contents.

The first component (item 4) has five alternatives and scores range from 0 to 4 depending upon the amount of agricultural land possessed by the family. For the second component i.e., ownership and type of house (item 5), no weightage is given to the place of house, because the scale is a common one measuring the SES of both rural and urban families and weightage 1 was assigned to own house (anywhere) and 0 to rented /government house. Weightages were assigned to the type of house where the family lives. The weightages range from 0 to 2 according to the type of house. Thus the score of this component was the sum of ownership score and type score. So, the minimum and maximum scores can be 0 and 6 respectively. 2

For the third component of property score i.e., for household contents, a list of several items grouped into four groups is provided in item No.6. For assigning weightages to the items, a list of items was given to few Bangladeshi sociologists and educationists with a request to judge the relative prestige weightage of these items. On the basis of their ratings items were grouped and weightages are assigned to each of the items. The respondents were asked to put the tick mark in the item(s) which belonged to their houses. The maximum score of a single item of a particular group was the score of that group. If the family did not possess any of the listed items of a group the score of that group was zero. The score of this component was the score of the four groups. So, minimum and maximum score of this component can be 0 to 10 respectively. Thus the score of this dimension is the sum of its three components scores and the minimum and maximum score of this dimension can be 0 and 20 respectively.

Cultural Level and Social Participation Score : For this dimension, 4 items (item no.7 to 10) were set. Item 7 assess the social position the family commands through employing paid persons in the family. This item has a minimum score of 0 if there is no paid person and maximum of 5 depending upon types of personnel employed. Item 8 and 9 assess the cultural level of the family. Item 8 assess the news papers subscribed by the family has got a score of 0 if no newspaper is subscribed and has a maximum of 2 score depending on the types of newspaper/magazine/journals etc. subscribed. Three questions of yes/no type were asked in item 9. Score 1 was assigned to each positive response and 0 was assigned to each negative response for this item. Thus a minimum of 0 and maximum of 3 was possible. In item 10, five alternatives were given but a respondent could put tick in more than one alternative. The weightages ranging from 1 to 5 were assigned according to the social status of these positions. The sum of the single highest score of father and that of the mother was the score of this item. If none of the father and mother occupied any of these positions the score was zero. Thus the possible minimum and maximum scores of this item is 0 and 10 respectively.

The score of this dimension i.e. cultural level and social participation is the sum of the total score of items 7, 8, 9 and 10. So, the minimum and maximum scores of this dimension are 0 to 20 respectively.

Composite SES Score : The composite SES score is the sum of the scores of above mentioned five dimensions. The minimum and maximum scores are 0 to 100 respectively.

(iii) Reliability and Validity :

The test-retest reliability co-efficients of different dimensions as well as of the whole instrument are given below:

<u>Dimension</u>	<u>Coefficient</u>
Education	0.98
Occupation	0.96
Family income	0.80
Property	0.91
Cultural level and Social participation	0.79
Whole SES scale	0.95

These coefficients are very high and statistically significant 0.01 level. The validity was established through judges' opinion.

4.4.2 Home Environment Rating Scale

a. Available Tools :

A thorough search for the related studies of this field showed that Fraser (1959) studied the home environment of Aberdan School children. She studied four dimensions of home environment which consisted eleven aspects, viz., (i) Cultural : parents' education, parents' reading habits; (ii) Material : income, parents' occupation, family size, living space; (iii) Motivational : parents' attitudes to the education and occupation of child, parental encouragement; (iv) Emotional : abnormal home background, general impression of the home, mother out at work.

Since, many of the above aspects overlap with the determinants of Socio-economic Status (SES) which was taken as a separate variable for the present study, Fraser's tool was not applicable for the present study. Hattwick and Stowell (1936), Jones (1955), Dave (1963), Wiseman (1967), etc. studied one or the other aspects of the home environment. But their tools were also not suitable in the present context.

In Indian situation Jain (1965), Verma (1966), Gupta (1968) and others studied some aspects of home environment using separate tools, but these are not comprehensive. Reddy (1973) and Salunke (1979) studied the home environment in relation to the academic achievement of first year degree students. Both of them studied the following dimensions of home environment.

(1) Educational facilities, (2) Emotional climate, (3) Parental value of education, (4) Parental interest and encouragement.

Salunke used a tool prepared by herself. She finalised the items on the basis of statistical technique (Chi square), but she did not report the reliability and validity of the tool. Reddy used 'Home Environment Questionnaire Cum Rating Scale' developed by himself. He duly reported the reliability as well as the validity of the instrument. There were 100 items in this tool, covering the above mentioned four dimensions. Some of the items of this tool convey the same idea and some of them seem to be irrelevant. Equal weightages were not given to the four dimensions and no rationale was put for differential weightage. Moreover, the students were asked to rate the items on a five point scale. But there were some items which are very difficult to be rated on a five point scale, rather these could be put only in Yes/No type responses.

In the absence of a suitable tool to measure the Home Environment of the HSC students, the investigator himself developed the Home Environment Rating Scale for measuring the home environment.

b. The Present Tool :

(i) Preparation

Dimensions of Home Environment : On the basis of the previous researches in this field and due consultation with experts, the investigator selected the following three dimensions of home environment. (1) Study facilities; (2) Emotional climate; (3) Parental interests and encouragement/motivation.

Study facilities include the availability of necessary materials for study, place of study, general atmosphere for study, responsibility of household works and financial assistance.

Emotional climate of the home touches those conditions in a home that keep the student relaxed or under stress. These include love and affection by and for the parents and siblings, relationship amongst the members of the family and with the neighbours, ideas and attitudes of the parents etc.

Parental interests and encouragement include interests shown by parents for studies, encouragement and advice given for studies and achievement and readiness for some sacrifice for the sake of subjects' studies.

Items : With the above points in view, the investigator at first wrote 25 to 50 items for each dimension. He himself then scrutinized the items, and after that he presented 18 to 32 items for each dimension to few experts from M.S. University and requested them to judge whether each item belonged to the particular area and dimension of the home environment. The purpose of the study was made known to them personally by the investigator. They were also requested to rate the items according to the suitability and usefulness for measuring the particular area and dimension. On the basis of their ratings and after scrutinizing again, finally 11 items for each dimension were taken.

The rating scale finally consists of 33 items, 11 items being in each dimension; 18 items are positively worded and the rest 15 items are negatively worded. To avoid response set, instead of putting all the items of a particular dimension in one place, the items were placed in sequential order of dimensions. Accordingly, every third item belonged to the respective dimension. The arrangement of items in the scale is shown in Table 4.4, and the Home Environment Rating Scale is presented in Appendix V.

TABLE 4.4
ARRANGEMENT OF ITEMS OF HOME ENVIRONMENT
RATING SCALE

Dimension /	Number of Items	Item Numbers	Possible Score	
			Maximum	Minimum
1. Study facilities	11	+10,16,28 -1,4,7,13,19, 22,25,31	22	0
2. Emotional climate	11	+2,14,20,23 -5,8,11,17,26, 29,32	22	0
3. Parental interests and encouragement	11	+3,6,9,12,15, 18,21,24,27, 30,33	22	0
Total	33	1 to 33	66	0

(ii) Scoring

The respondents were asked to show agreement or disagreement with the items on a three point scale i.e., 'always or to great extent', 'sometimes or to some extent' and 'never or not at all'. In case of positive and negative items the scores 2,1,0 and 0,1,2 were assigned to each of the three categories of responses respectively. The sum of the scores of a particular dimension is the total score of that dimension. The composite score of home environment is the sum of the scores of all the three dimensions. The maximum and minimum possible scores for each dimension are 22 and 0 respectively and those of home environment are 66 and 0 respectively.

(iii) Reliability and Validity

The test-retest reliability co-efficients of different dimensions as well as of the whole instrument are given below:

<u>Dimension</u>	<u>Co-efficient</u>
Study facilities	0.76
Emotional climate	0.76
Parental interest and encouragement/motivation	0.62
Whole Home Environment Rating Scale	0.82

These co-efficients are very high and statistically significant at 0.01 level.

The validity of the instrument was established through judges' opinion.

4.4.3 Educational Aspiration Scale

a. Available Tools :

No tool to measure the educational aspirations was available in Bangladesh. In India Pareek and Chattopadhyaya (1965) Shah and Bhargava (1971), Phutela (1976), Grewal (1980), Sharma and Gupta (1980) and Rao (1982) used different methods to measure the level of educational aspiration of the students. The tool used by Rao was found simple and appealed to the investigator. Therefore Rao's tool was modified to suit the purpose of the present study.

b. The Present Tool:

At first 20 alternative educational plans were put in the form of a checklist. After careful scrutiny, the list was reduced to 18 items. Since, the tool is meant for higher secondary students, the alternatives ranging from 'a job before appearing HSC examination' to 'a job only after completing Ph.D.' were included in the checklist.

(ii) Weightages Assigned to the Plans

After a thorough search of related literature and discussion with a group of experts especially from Bangladesh, these alternative educational plans were assigned weightages according to the duration of course and social prestige attached to degrees, diplomas etc. of general and professional education awarded by boards of education and universities. The weightages range from 1 to 10 for eighteen alternatives. So, it is possible that two or more plans have the same weightage. The Educational Aspiration Scale and Weightages of educational plans are presented in Appendix - VI and Appendix VII respectively.

(iii) Scoring

The eighteen educational plans provided in the tool are assigned different weightages as mentioned above. These weightages were not shown in the tool to avoid biased judgement by the respondents. The respondent was asked to select only one educational plan that he or she desired to pursue. The choice of the educational plan made by the student indicated his or her 'level of educational aspiration'. The educational aspiration score is the weightage of this selected item. The maximum and minimum score of a respondent can be 10 to 1 respectively.

(iv) Reliability and Validity

The test-retest reliability co-efficient is 0.93, which was very high and significant at 0.01 level.

The validity of the instrument was established through judges' opinion.

4.4.4 Occupational Aspiration Scale

a. Available Tools :

There is not a single tool to measure the level of occupational aspiration of students in Bangladesh.

Grewal (1980) constructed an Occupational Aspiration Scale using the prestige concept. He obtained the prestige rankings of

108 occupations rated by Indian students studying in USA. His ratings have a limitation in that the occupations could perhaps might not have been rated as viewed in this subcontinental context.

Rao (1982) also constructed an Occupational Aspiration Scale using the same concept. He obtained the ratings from 56 judges for 36 occupations suited for Delhi population. Variations may therefore be expected in the prestige ratings obtained in these tools in comparison to Bangladeshi situation. Moreover, with the fast changing occupational structure in a developing country and society, it is desirable and advisable to revise the prestige values of the occupations from time to time. With these considerations in view, the investigator decided to develop a tool suitable for Bangladeshi population.

b. The Present Tool :

(i) Preparation

Selection of Occupations : A list of 60 occupations was prepared in the initial stage by the investigator. After thorough scrutiny and taking the suggestions of experts in the fields of sociology and education and also from employment bureau personnel, finally 43 occupations were selected for the present tool.

Prestige Scores for Occupations : To obtain the prestige scores for these 43 occupations, with prestige as continuum, the list of these occupations was supplied to 126 judges who represented a cross-section of population of Bangladesh. They were requested to rate on a seven point scale, the social prestige of each of the 43 occupations as viewed from Bangladeshi situation. The seven points were (1) outstanding, (2) very good, (3) good, (4) average, (5) fair, (6) poor and (7) very poor. The rating scale ranging from 'outstanding' to 'very poor' was given weightages 7,6,5,4,3,2 and 1 respectively. The prestige score of an occupation was calculated using the following formula,

$$\text{Prestige Score} = \frac{7n_1 + 6n_2 + 5n_3 + 4n_4 + 3n_5 + 2n_6 + n_7}{7N} \times 100$$

where, $n_1, n_2, n_3, n_4, n_5, n_6$ and n_7 are the member of respondents who rated this occupation as outstanding, very good, good, average, fair, poor, very poor, respectively and,

$N = n_1 + n_2 + n_3 + n_4 + n_5 + n_6 + n_7$ = total number of respondents who rated this occupation.

The maximum prestige score of an occupation could be 100 and the minimum could be 14.28. In the final list, the 43 occupations were arranged in a haphazard way so that they were neither in descending order nor in ascending order of weightages. This was done to prevent the tendency of students to choose the occupations in a particular sequence. Due to this arrangement the student would have to go through all the occupations before choosing them. The Occupational Aspiration Scale is given in Appendix - VIII. The prestige scores obtained for all 43 occupations are given in Appendix - IX.

(ii) Scoring

The respondents were asked to select three occupations in order of preference from the list of 43 occupations. The respondent could have been asked to give only the first preference instead of first three preferences. But this might not have given a correct picture of their aspirations as the reasons of choice were assumed to be multi-causal and complex.

Weighted average of the weightages of the three selected occupations was the score of the respondent. The mathematical formula that was used to compute this score is,

$$\text{OAS} = \frac{3x + 2y + z}{6}$$

where x, y and z are the prestige scores of the 1st, 2nd and 3rd preferred occupations of the respondent respectively.

Sincere, the prestige scores of top three occupations are 89.68, 89.46 and 87.53 for university teacher, diplomat in foreign service and judge respectively, the maximum possible score of a respondent can be $(3 \times 89.68 + 2 \times 89.46 + 1 \times 87.53)/6 = 89.25$. Similarly, since the prestige score of lowest three occupations are 23.92, 35.71 and 39.12 for peon, bus/truck driver and clerk respectively, the minimum possible score of a respondent can be $(3 \times 23.92 + 2 \times 35.71 + 1 \times 39.12)/6 = 30.38$.

(iii) Reliability and Validity

The test-retest reliability co-efficient of the instrument is 0.97. This is very high and statistically significant at 0.01 level.

The validity of the instrument was established through judges' opinion. 9

4.4.5 Co-curricular Interest Inventory.

a. Available Tools :

In absence of a suitable tool to measure the co-curricular interests of the students, the investigator himself developed the co-curricular interest inventory.

b. The Present Tool:

(i) Preparation

Dimensions of Co-curricular Interest : On the basis of the previous researches, related literature and the personal experience of the investigator as a college teacher, the investigator selected the following six dimensions of co-curricular interests for his inventory.

1. Reading interests ✓
2. Interests in Games and Sports ✓
3. Interests in Literary activities ✓
4. Interests in Cultural activities ✓
5. Interests in Scientific activities ✓
6. Interests in Social work activities ✓

Reading interests include reading of news papers, magazines, recreational books and books of other discipline.

Interests in games and sports include active participation in games and sports, watching different matches, reading sports news and listening to relay of matches on Radio/TV.

Interests in literary activities include interests in composition, debate, literary discussion and publication of magazines/journals.

Interests in cultural activities include interests in participating and observing music, dance, drama and organising drama and cultural functions.

Interests in scientific activities include interests in science fair/exhibition and visiting places of scientific interests.

Interests in social work activities include interests in youth camps and participation in various social work activities.

TABLE 4.5
ARRANGEMENT OF ITEMS OF CO-CURRICULAR
INTEREST INVENTORY

Dimension	Number of Items	Item Numbers	Possible Score	
			Maximum	Minimum
1. Reading interests	3	1 to 3	20	0
2. Interests in games and sports	11	4 to 14	20	0
3. Literary interests	10	15 to 24	20	0
4. Cultural interests	14	25 to 38	20	0
5. Interests in scien- tific activities	10	39 to 48	20	0
6. Interests in social works	12	49 to 60	20	0
Total	60	1 to 60	120	0

Items : The investigator at first wrote about 15 to 25 items for each dimension covering all the above mentioned areas. Then, after discussing with few experts in these field and after a close scrutiny, 60 items were retained for the inventory. The arrangement of the items and the number of items in each dimension is shown in ^{table} 4.5 and the Co-curricular Interest Inventory is presented in Appendix-X.

(ii) Scoring

The respondents were asked to show their agreement or disagreement either in two or three point scale. The two points scales were worded 'Yes' or 'No'. The three points scales were mainly 'Regularly', 'Casually' or 'Never', and also there were few items with responses like 'to a great extent', 'to some extent' and 'not at all'. In case of ^{or} two category responses scores 1 and 0 and in case of three category responses scores 2, 1 and 0 were assigned.

The sum of the scores of a particular dimension is the total score of that dimension. The composite score of co-curricular interests is the sum of the scores of all six dimensions. The maximum and minimum scores for each of the dimensions are 20 and 0 respectively and those for the composite co-curricular interests are 120 and 0 respectively.

(iii) Reliability and Validity

The test-retest reliability co-efficients of different dimensions as well as of the whole instrument are given below:

<u>Dimension</u>	<u>Co-efficient</u>
Reading interests	0.62
Interests in games and sports	0.76
Literary interests	0.73
Cultural interests	0.72
Interests in scientific activities	0.56
Interests in social works	0.73
Whole Co-curricular Interest Inventory	0.83

These co-efficients are very high and statistically significant at 0.01 level.

The validity of the instrument was established through judges' opinion.

4.4.6 Institutional Adjustment Inventory

a. Available Tools :

Many of the tools developed so far for measuring the adjustment in general have incorporated institutional adjustment as one of the several aspects. Very few tools were available which exclusively measure the institutional or school adjustment of the students.

Bell (1939) developed a school adjustment inventory with 74 items to measure the maladjustment of school students while Bhagia (1966) developed a school adjustment inventory for school students which consisted of 165 items covering five dimensions. Some of the items of this tool conveyed the same idea and some of them seemed to be irrelevant for students studying in colleges. Equal weightage was not given to all dimensions, and no rationale was put for differential weightage. So, this tool was not suitable for the present study. In absence of a suitable tool to measure the Institutional Adjustment of the students, the investigator himself developed the Institutional Adjustment Inventory in line with Bhagia's School Adjustment Inventory to measure the college adjustment of the higher secondary students.

b. The Present Tool :

(i) Preparation

Dimensions of Institutional Adjustment : On the basis of the previous researches and related literature, the investigator selected the following four dimensions of institutional adjustment for his inventory:

1. Academic adjustment
2. Adjustment with classmates
3. Adjustment with teachers
4. Adjustment with the rules/regulations and college atmosphere in general.

Academic Adjustment includes the adjustment with the subjects taught in the college, adjustment with the classroom teaching and adjustment with the assessment procedure.

Adjustment with the classmates includes cooperation and friendship with the mates, popularity amongst the class mates, liking/disliking by and for the class mates.

Adjustment with teachers includes adjustment with the personality, attitude and teaching of the teachers and closeness with the teachers.

Adjustment with the atmosphere of the college in general includes adjustment with the rules/regulations and time table of the college, satisfaction with the activities of the college and students' perception of the college as a whole.

Items : The investigator at first wrote 30 to 40 items for each dimension covering all the areas mentioned above. He himself then scrutinized the items and selected 24 to 33 items for each dimension. On the basis of the discussion with experts regarding the appropriateness of items in the tool and also in particular dimension, finally 10 items were selected for each dimension covering all the above mentioned areas.

The inventory finally consists of 40 items (10 being in each dimension) of which 20 are positively worded and 20 items negatively worded. To avoid response set, the items were arranged in dimensionwise sequence. Thus, every fourth item belongs to the respective dimension. The arrangement of items in the inventory is shown in Table 4.6 and the Institutional Adjustment Inventory is presented in Appendix - XI.

TABLE 4.6
ARRANGEMENT OF ITEMS OF INSTITUTIONAL
ADJUSTMENT INVENTORY

Dimension	Number of Items	Item Numbers	Possible Score	
			Maximum	Minimum
1. Academic adjustment	10	+1, 9, 17, 25, 33 -5, 13, 21, 29, 37	10	0
2. Adjustment with classmates	10	+6, 14, 22, 30 -2, 10, 18, 26, 34, 38	10	0
3. Adjustment with teacher	10	+3, 11, 19, 27, 35, 39 -7, 15, 23, 31	10	0
4. Adjustment with rules and regulation/general condition	10	+8, 16, 28, 36, 40, -4, 12, 20, 24, 32	10	0
Total	40	1 to 40	40	0

(ii) Scoring

The respondents were asked to express their agreement or disagreement by responding to the choices 'agree', 'disagree', or 'undecided'. But as it was quite possible that a student having a symptom of maladjustment might be tempted to fake and give favourable reply, the choice of 'undecided' provides him a way to escape, but student with adjustment would not hesitate in replying definitely in this way or that way. Since we were measuring the adjustment and not maladjustment this would not affect the results if such responses were not given any weightage.

In case of positively worded items, score 1 was assigned to a 'agree' response, and 0 to a 'disagree' or an undecided response. Similarly for negative items, score 0 was assigned

to a 'agree or undecided' response and 1 was assigned to a 'disagree' response. The sum of the scores of a particular dimension is the total score of that dimension. The composite score of institutional adjustment is the sum of the scores of the four dimensions. The maximum and minimum possible scores for each dimension are 10 to 0 respectively and those of institutional adjustment are 40 and 0 respectively.

(iii) Reliability and Validity

The tes-retest reliability coefficients are found for each dimension and for total inventory as under:

<u>Dimension</u>	<u>Co-efficient</u>
Academic adjustment	0.65
Adjustment with classmates	0.61
Adjustment with teachers	0.72
Adjustment with rules/regulations and general conditions	0.66
Whole Institutional Adjustment Inventory.	0.76

These co-efficients are very high and statistically significant at 0.01 level.

The validity of the instrument was established through judges' opinion.

4.4.7 Sentence Completion Test

a. Available Tools :

Several tests have been developed to measure the achievement motivation (n-Ach) e.g., modified TAT cards designed by McClelland et al. (1953), TAT type test developed by Mehta (1967), n-Ach Scale of Edwards Personal Preference Schedule (Edwards, 1954), Motivation Analysis Test (Cattell et al. 1964) Iowa Picture Interpretation Test (Johnston, 1957), Heilburn Achievement Need Scale (Heilburn, 1959) and Sentence Completion Test (SCT) of Mukherjee (1965A).

The investigator had decided to administer SCT of Mukherjee to measure the achievement motivation of students.

The advantage of SCT is its objectivity in scoring and ease in administration. It also controls social desirability by employing forced choice triads.

b. Description of SCT :

(i) Preparation

Wherry's (1951) forced-choice technique was used in developing SCT. The SCT consists of 50 forced choice triads. About 300 statements were initially prepared out of which 100 statements had face validity for measuring n-Ach. They were specifically written to cover the following ten aspects of achievement motivation: (a) Hope of success, (b) Fear of failure, (c) High standard of excellence, (d) Sense of competition, (e) Optimism, (f) Perseverance, (g) Interest in making future plan, (h) Concern for creative work, (i) Preference for difficult and challenging tasks and (j) Identification with a successful authority. The remaining 200 statements were drawn to measure other aspects of manifest needs.

One hundred psychology students rated the social desirability of the statements on a seven point scale and 10 judges rated on a seven-point scale the face validity of the statements for measuring n-Ach. Three statements which had more or less same social desirability but two of which had no face validity for measuring n-Ach were matched and 76 such triads were established initially. After item analysis, 50 triads were retained. To maintain a non-revealing situation, the instructions on the test sheets gave no information to the subjects as to the purpose of the test and the questionnaire was called Sentence Completion Test (SCT). This SCT is presented in Appendix - XII.

(ii) Scoring

Out of three alternatives provided, the subjects have to tick mark one that corresponds the most with his/her present characteristics for feelings and to cross out the letter that was least true of him/her. The alternatives that correspond to

n-Ach in each triad are given in Appendix - XIII. The total marks made against correct alternatives gave the n-Ach score. The alternatives crossed by the subjects were not counted.

(iii) Reliability and Validity

The reliability of the test was established on four independent samples (Mukherjee, 1965A). Test-retest correlations were 0.71 to 0.83.

The co-efficient of concurrent validity between scores on SCT and scores on n-Ach based on Murray's items was found to be 0.439 as this is significant at the 0.01 level. The correlations between SCT scores and Ego Ideal and Need Counter-action Scales derived from Murray Personality Inventory (MPI) are 0.393 and 0.394, both significant at 0.01 level (Mukherjee, 1965A). The construct validity of the test is borne out of a level of Aspiration Study in which subjects scoring high on SCT showed more positive goal discrepancy than subjects having low SCT score (Mukherjee, 1965B).

4.4.8 General Information Sheet

Besides the instruments described above, a general information sheet was prepared for mainly three purposes: (1) to gather information regarding some of the background and socio-economic background variables, (ii) to gather information about their addresses and how to reach these addresses and (iii) to find out few references from whom information regarding students' college entry can be gathered.

Information regarding sex and religion, home location, stream of study, birth order and age are sought in items 2, 6, 1, 8 and 3 respectively. Items 10, 9, 11, and 7 provided information about nature of the family, size of the family, siblings' education and student's residence respectively. For the siblings' education, information regarding the education of the elder siblings of the respondents was sought only because from the previous researches and literature the investigator came to the conclusion that only the elder siblings' education

might contribute to the college entry, and not that of the younger siblings'. Item 12 deals with the academic performance of the respondent at his/her SSC examination. Items 5 and 13 are regarding the permanent address of the respondent and the probable address where he/she might be contacted after the HSC examination and the easiest way to reach there. In items 14 and 15 name of four references are sought who could give the information regarding the college entry of the respondent. The general information sheet is shown in Appendix - II.

4.5 DATA COLLECTION

Data for the present investigation were collected in four phases. In the first phase, data were collected from the students by administering tools and general information sheet; in the second phase the examination results of HSC examination of the respondents were collected from the sampled institutions where two groups of students, the failures and passed were identified; in the third phase the information regarding the college entry of the passed students were gathered either from the students themselves or from the references or from degree colleges - this procedure again identified two groups, the entrants and non-entrants. Lastly, for indepth studies two random samples of entrants and non-entrants were interviewed.

4.5.1 Administration of Tools

Data were collected by administering the tools and general information sheet described earlier on the representative sample of students of class XII of Bangladesh. These data were collected in the months of October, November and December of the academic year 1984. It was felt that it was appropriate to collect data at this juncture of the academic year for several reasons. Since the design of the present study demanded the identification of two groups of students after their HSC examination, it was thought that those who reached at the middle stage of class XII, they would appear at the HSC examination. Further, it was thought that by this time the

respondents' aspirations, interests might have taken a fairly good shape. Also, it was considered that the attendance of the students at the college would be more at this juncture.

One section consisting of students belonging to one stream was taken at a time and all the tools were administered one after the other. Keeping in mind the convenience of the college authority as well as of the students, the time for administering the test was decided. Generally periods of compulsory subjects were kept in order to get maximum advantage of students' attendance. The college principals and teachers also took keen interest and extended their cooperation while administering the tools.

The tools and the instructions were printed in Bengali, which is the mother tongue, state-language and also the medium of instruction. Though these tools were shown to language experts, few students found some words difficult to understand which were explain to them collectively or at times individually. The investigator explained briefly the purpose of the research to the students before they started answering the questionnaires. It took about two hours to complete the questionnaires.

The data on each of the variables were collected with the help of measuring tools described in this chapter. These tools yielded scores for each respondent with respect to different variables. The next step was to collect the HSC examination results and identify the failures and successful students.

4.5.2 Data Regarding Academic Performance

The next phase of data collection started after the publication of the results of HSC examination of 1985 of the Board of Intermediate and Secondary Education, Dhaka. This phase consisted of the collection of marks of individual respondents from the marksheets supplied by the Board to the sampled colleges. Along with this, the SSC marks of each respondent were also collected from the college files. On the basis of the HSC examination results the whole sample was divided into two groups:

- (i) the successful and (ii) the failures.

Having identified the two groups, the next step was to find out from the successful students the students who entered higher education.

4.5.3 Information Regarding College Entry

The information regarding whether each of the successful students entered higher educational institution or not was collected after the admission of 1985-1986 session was over. These data were collected from degree colleges of Faridpur and Rajbari districts, from individual students, from their parents and friends. On the basis of these informations the successful students were divided into two groups viz., (i) entrants and (ii) non-entrants.

4.5.4 Interview of the Two Groups of Respondents

Having identified the two groups, more than five per cent students were selected randomly from each group for having an indepth study with respect to their specific motivational and aspirational aspect as well as for studying the specific reasons for their non-entering higher education as the case may be. These students were interviewed by the investigator at their residences or at colleges.

4.6 SYSTEM OF DATA ANALYSIS

The present investigation falls under the category of survey research and descriptive research.

Survey research studies population by selecting and studying samples chosen from the population to discover the relative incidence, distributions and interrelations of biographical, sociological and psychological variables. According to Kerlinger (1983), "it focuses on people, vital facts of people and their beliefs, opinions, attitudes, motivation and behaviour. Sociological facts are attributes of individuals that spring from their membership in social groups - sex, income, religion, SES,

education, age, occupation, race and so on. The second type of variable is psychological and includes opinions and attitudes on the one hand and behaviour on the other. Sociological variables then are related in some manner to the psychological variables."


Descriptive research deals with the relationship between variables, the testing of hypotheses and the development of generalizations, principles and theories. It is concerned with functional relationships. The expectation is that if variable A is systematically associated with variable B, prediction of future phenomenon may be possible and the results may suggest additional or competing hypotheses to be tested.

Thus for describing the characteristics and testing the hypotheses, suitable and appropriate statistical techniques are necessary. For testing the hypotheses two types of statistical tests viz., parametric and non-parametric or distribution free tests are available.

4.6.1 Statistical Techniques Used for Present Investigation

Parametric tests are considered to be most powerful tests and should be used if their basic assumptions can be met. These assumptions are based upon the nature of the population distribution and on the way the type of scale is used to quantify the data observations. The initial analysis of the scores of most of the tools showed trend towards non-normal distributions and all the instruments utilized in the present investigations were not interval or ratio scales in the truest sense.

The methodologists of educational research and the statisticians (e.g., Best, 1977; Garrett, 1979) suggest non-parametric statistics as most useful when (1) assumptions regarding the normality of the population are doubtful and (2) variables are expressed in nominal form (classified in categories and represented by frequency counts) or in ordinal form (ranked in order). Thus the light of the above discussions, the investigator decided to use non-parametric statistics.



For describing the characteristics of different groups frequency and percentage were used and for testing the association between entry into higher education and characteristics, Chi-square was used. Some of the data were collected in nominal form, others had to be converted into categories. The categorization of the variables is described below.

4.6.2 Categorization of the Variables/Characteristics

The data regarding all background characteristics and most of the socio-economic background variables were in nominal form. Data regarding parental education, parental occupation and family income - the three out of five dimensions of SES and educational aspiration, occupational aspiration were in nominal form but scores were also available for them. But only continuous scores were available for composite SES, home environment, co-curricular interest, academic performance, achievement motivation and institutional adjustment. Thus these variables had to be categorized. A variable for which continuous score is available can be categorized in many ways - such as (1) on the basis of standard deviation, (2) on the basis of percentile and (3) arbitrarily.

To use standard deviation as a criterion of classification of a variable - the assumption regarding the normality of the distribution must be met. As it has been discussed earlier that most of the variables exhibited skewed distribution, the standard deviation as the criterion of classification could not be used for the present analysis. The variables could be classified using percentile as the demarcation line, but there was one difficulty also e.g., if one wants to classify a variable like, SES into three groups and call the groups as high, middle and low, he uses 67th and 33rd percentile for this purpose. Thus he classifies scores on or above the 67th percentile as high, between 33rd and 66th percentile as middle and below 33rd percentile as low. In reality it may happen that all the scores are very low and correspond to low status only, but what he is doing is that he is classifying this low status group into three

categories and calling one of them as high, another as middle and the third as low. Thus classification on the basis of percentile divides an existing distribution into different parts without taking into account the skewness or concentration. This is alright for testing the hypotheses regarding the association between variables, but while describing the characteristics, it is not proper.

Thus the investigator decided to categorize a variable not dividing the distribution, but dividing the scale of the instrument into parts. Since a particular instrument is reliable and valid, the higher the scores on this instrument measure the attribute as high, and lower scores, low is the attribute. So it was decided that categorization of the variable into three categories would be just for describing them and the possible scale range of the instrument measuring this variable was divided into three equal parts. The scores which fall on the top portion were classified as high, those fall the middle portion as middle or average or moderate and those fall in the lower portion as low or poor.

The details of the categorization of the variables are presented below:

(1) Background Variables :

(a) Sex :

There were two levels of Sex viz., (i) Boys and (ii) Girls.

(2) (b) Home Location :

There were two categories of home location viz., (i) Rural and (ii) Urban.

(c) Religion :

There were two categories of religion viz., (i) Muslims and (ii) Hindus. No student from other religion was found in the sample.

(d) Stream of Study :

There were three streams of study viz.,

(i) Arts, (ii) Commerce and (iii) Science.

(e) Birth Order :

Three categories of birth order were identified. These were (i) First born, (ii) Middle born and (iii) Last Born.

(f) Age :

The respondents were classified as (i) Older and (ii) Younger. The demarkation line was the median age. The students whose age was 17 years 4 months or above were identified as older and others as younger.

(ii) Socio-Economic Background :

a.1. Parental education :

Five levels of education were identified for the education of father and mother. These were

- I. Illiterate
- II. Primary : From Class I to V.
- III. Secondary: From Class VI to X.
- IV. Secondary Graduate : This includes S.S.C./
Matriculate, H.S.C./Intermediate passed or any
diploma holder.
- V. Graduate : This includes Bachelor, Masters, Ph.D.
or any Professional degree.

a.2 Parental Occupation :

Seven categories of occupation were identified as occupation of father and mother. These were:

- I. Agriculture.
- II. Business.
- III. Teaching : This includes primary, secondary,
college and university teaching.
- IV. Lower Service : This includes Class IV and III
employees of Govt. Non-Govt. or
Private organisations.

- V. Senior Service : This includes class II and I Officers of Govt., Non-Govt. and Private organisations.
- VI. Professionals : This includes, doctors, engineers, lawyers etc.
- VII. Others : Other than above six categories.

a.3 Family Income :

Three levels of family-income were identified. These are:

- I. High : Monthly income more than TK 5000/00.
- II. Average : Monthly income from TK 1501 to 5000/00.
- III. Low : Monthly income less than or equal to TK 1500/00.

a.4 Property :

Three levels were identified on the basis of the property score of SES Scale. These were:

- I. High : Scores between 14 and 20.
- II. Average : Scores between 7 and 13.
- III. Low : Scores between 0 and 6.

a.5 Cultural level and Social Participation :

Three levels were identified on the basis of the scores of cultural level and social participation of SES Scale. They were:

- I. High : Scores between 14 and 20.
- II. Average : Scores between 7 and 13.
- III. Low : Scores between 0 and 6.

(a) Composite SES :

Three levels were identified on the basis of the composite scores on SES scale. These were :

- I. High : Score between 67 and 100.
- II. Average : Scores between 34 and 66.
- III. Low : Scores between 0 and 33.

(b) Nature of the Family :

There were two types of family viz., (i) Nuclear family and (ii) Joint family.

(c) Family Size :

Three levels of family size were identified. These were

I.I. Small family : 0 to 4 siblings.

II. Average family : 5 to 7 siblings.

III. Large family : More than 7 siblings.

(d) Education of the Siblings :

For this dimension, the weightages were same as those used for parental education in the SES scale. The weightages for all elder siblings were added, then this total was divided by the number of elder siblings. This mean score was taken as the score of this variable. Three levels were identified on the basis of the scores. These were :

I. High : Scores between 6.68 and 10.

II. Average : Scores between 3.34 and 6.67.

III. Low : Scores between 0 and 3.33.

(e) Student's Residence :

Four categories of student's residence were identified. They were :

I. Parental Home : Those who stayed with parents.

II. Relatives Home : Those who stayed with relatives.

III. Hostel : Those who stayed at hostels.

IV. Others : Other than above three categories.

(III) Home Environment :

Three levels for each dimension as well as for over all home environment were identified on the basis of the scores of Home Environment Rating Scale. These were:

	<u>I Good</u>	<u>II Moderate</u>	<u>III Poor</u>
Each dimension	15-22	8-14	0-7
Overall Home environment	45-66	23-44	0-22

(IV) Academic Performance :

Three levels of academic performances were identified on the basis of the total marks of SSC and HSC examination. These were :

- I. High : 1st division, 60% or more marks.
- II. Average : 2nd division, 45% or more but less than 60%.
- III. Low : 3rd division, less than 45%.

(V) Educational Aspirations :

Three levels of educational aspirations were identified on the basis of the scores of Educational Aspiration Scale. These were :

- I. High : Scores between 7 and 10
- II. Average : Scores between 4 and 6
- III. Low : Scores between 1 and 3

(VI) Occupational Aspirations :

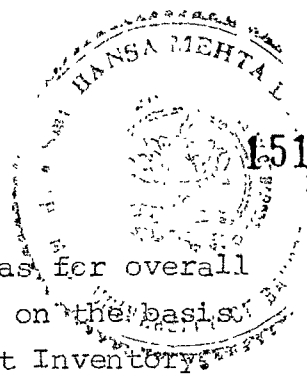
Three levels of occupational aspirations are identified on the basis of Occupational Aspiration Scale. These are:

- I. High : Scores between 69.64 and 89.25
- II. Average : Scores between 50.01 and 69.63
- III. Low : Scores between 30.38 and 50.00

(VII) Co-Curricular Interests :

Three levels for each dimension as well as for over all co-curricular interests were identified on the basis of the scores of C-Curricular Interest Inventory: These were:

	<u>I High</u>	<u>II Average</u>	<u>III Low</u>
Each dimension	14-20	7-13	0-6
Overall Co-Curridular Interests	81-120	41-80	0-40



(VIII) Institutional Adjustment :

Three levels for each dimension as well as for overall Institutional Adjustment were identified on the basis of the scores of Institutional Adjustment Inventory. These were :

	<u>I Good</u>	<u>II Moderate</u>	<u>III Poor</u>
Each dimension	7 - 10	4 - 6	0 - 3
Overall Institutional Adjustment	27 - 40	14 - 26	0 - 13

(IX) Achievement Motivation :

Three levels of achievement motivation were identified on the basis of the scores on SCT. These were :

- I. High : Scores between 34 and 50.
- II. Moderate : Scores between 17 and 33.
- III. Low : Scores between 0 and 16.

The analysis and discussion of the data collected using the methodology described in earlier pages have been presented in the next chapter.