CHAPTER – III

METHODODOLOGY

This chapter has presented a detail planning of the strategies used in the present research work. Methodology is an important section of any research study. Research methodology is a science of studying how research is done systematically. In research methodology we study the various steps that are normally adopted by an investigator in studying his/her research problem along with the logic behind them. So, research methodology means not only the description of methods, techniques and tools used in research work, but providing proper justification for using those methods, tools and data analysis technique etc. in research work. This chapter consists of the research method, population, sample, sampling procedure, description of the research tools used for data collection and statistical technique used for data analysis etc. for carry out the present research study.

3.1 RESEARCH METHOD CONSIDERING FOR THE PRESENT STUDY

Research methods are all those methods which are used by the investigator during the course of studying his/ her research problem. There are three major methods of conducting research work viz. Historical method, Descriptive method and experimental method.

In order to carry out the present study, the investigator has used Descriptive survey method. It is a method of investigation to study, describe and interpret that exists at present. Descriptive survey method is designed to obtain pertinent and precise information concerning the current status of phenomena. It helps to draw valid general conclusions from the facts discover.
3.2 POPULATION OF THE STUDY

Population is a group of people which have one or more characteristics in common that the investigator wants to study within the context of his/her research work.

There were total 1608 undergraduate Arts students in three degree colleges of Dima Hasao district, where 729 boys and 879 girls. Among 729 boys, 443 undergraduate boys belonged from urban population and 286 boys belonged from rural population. Again, among 879 girls, 550 undergraduate girls belonged from urban population and 329 girls belonged from rural population.

3.3 SAMPLE AND SAMPLING PROCEDURE OF THE STUDY

A sample is a small fraction of the population selected by an investigator for observation. It is very difficult to study the whole population in respect of cost, time and energy etc. So, it is more advantageous to pick up a sample from the population of the study. Sampling is a process of selecting the sample from the population.
From the total population i.e. 1608, 40% i.e. 643 undergraduate students have been selected as sample for the present study. Out of these 643, 291 undergraduate students have been selected from undergraduate boys represented 40% of the boys population (177 urban and 114 rural) and 352 undergraduate students have been selected from undergraduate girls represented 40% of the girls population (220 urban and 132 rural). Stratified and Proportionate random sampling techniques have been used for the present study keeping in view the practical feasibility and the differences in the number of male, female, urban and rural undergraduate students.

### Total number of sample

<table>
<thead>
<tr>
<th>Total (Total)</th>
<th>643</th>
</tr>
</thead>
<tbody>
<tr>
<td>Boys</td>
<td>291</td>
</tr>
<tr>
<td>Girls</td>
<td>352</td>
</tr>
<tr>
<td>Urban</td>
<td>177</td>
</tr>
<tr>
<td>Rural</td>
<td>114</td>
</tr>
<tr>
<td>Urban</td>
<td>220</td>
</tr>
<tr>
<td>Rural</td>
<td>132</td>
</tr>
</tbody>
</table>

### 3.4 VARIABLES OF THE STUDY

In the present study 1 variable was dependent and 4 were independent variables. Those variables have been given below –

**Dependent variable –**

1. Social Intelligence
Independent Variables –

1. Home Environment
2. Socio-Economic Condition of parents
3. Gender (Male and Female)
4. Location (Urban and Rural)

3.5 RESEARCH TOOLS USED FOR THE STUDY

In this study three scales have been used for data collection namely –

2. Home Environment Scale developed by Dr. Harpreet Bhatia and Dr. N. K. Chada (2015).
3. Socio-Economic Status Scale developed by Rajbir Singh, Radhey Shyam and Satis Kumar (2006) has been adopted with modification to find out the socio-economic condition of parents of the undergraduate students.

3.6 DESCRIPTION OF THE TOOLS

3.6.1 SOCIAL INTELLIGENCE SCALE

Social Intelligence Scale developed by Dr. N. K. Chadda and Usha Ganesan. This scale consists of eight dimensions viz. patience, cooperativeness, confidence, sensitivity, recognition of social environment, tactfulness, sense of humour and memory. The scale consisted of 66 items. All 66 items have been taken for the present study. In the case of
6 dimensions (patience, Confidence, Cooperativeness, Sensitivity, Sense of Humour and recognition of Social Environment) the subject was given a choice of three alternatives for each item and was asked to choose one. In the case of the first four dimensions (Patience, Cooperativeness, Confidence and Sensitivity) scores of 1, 2 and 3 were given to three response alternatives. For e. g., in the confidence dimension a score of 3 would indicate a high degree of confidence, a score of 1 a lack of confidence and a score of 2 would reveal moderate confidence. In the other two dimensions (Sense of Humour and Recognition of Social Environment) one of three alternatives given is the appropriate response. This response when given was allotted of scores of 1. In the case of the ‘Tactfulness’ dimension the responses were in the form of ‘Yes’ or ‘No’. The appropriate response was awarded a score of ‘1’. The last dimension that of ‘Memory was scored ‘1’ or ‘0’ depending on whether or not the subject’s response was ‘right’ or ‘wrong’.

RELIABILITY

Split half and Test-retest techniques were used to find out the reliability coefficients. 150 samples (75 male and 75 female) were taken for finding out the reliability coefficients. High coefficients were obtained in all dimensions of social intelligence scale. They were patience - .93 and .94, cooperativeness - .91 and .91, confidence - .89 and .90, sensitivity - .90 and .93, recognition of social environment - .95 and .95, tactfulness - .91 and .84, sense of humour .90 and .92 and memory - .96 and .97 respectively.
VALIDITY

Empirical validity and cross validity were used to validate the social intelligence scale. 50 samples were taken to find out the validation of the scale. High coefficients were obtained in over all social intelligence scale i.e. r value - .70 and .80 respectively.

3.6.2 HOME ENVIRONMENT SCALE

Home environment Scale was developed by Dr. Harpreet Bhatia and Dr. N. K. Chada. This scale consisted of eight sub-scales viz. cohesion, expressiveness, conflict, acceptance and caring, independence, active-recreational orientation, organization and control. The scale consisted of 69 items. It was a five point scale such as strongly agree, agree, neutral, disagree and strongly disagree. The items of the scale were scored on both positive and negative directions. Positive direction proceed from 5 to 1 and negative direction proceed from 1 to 5 score.

RELIABILITY

Split-half reliability was found for the present scale. Hence, the present scale was split into two halves. The scores of each dimension were also split into two halves. The scores for each of these halves were then correlated. From this self-correlation of the half-tests, the reliability coefficient of the whole test was estimated using the Spearman-Brown Prophecy formula. Overall Test Reliability Coefficient was obtained 0.95.

VALIDITY

Both face and content validity were tested by giving the scale to eighteen experts to evaluate the test items. Only those items with at least 75 percent agreement among the judges were retained.
For content validity, the dimensions of the family environment were selected and clearly defined for the purpose of measuring the specific aspects of the environment. These definitions were also subjected to the judgement of the eight experts in the first step, and five experts in the second step.


Socio-Economic Status Scale was developed by Rajbir Singh, Radhey Shyam and Satis Kumar. 25 items were selected by the experts. One item each for caste and occupation. Two items for family (type and size), one item for educational qualification of self and other members, Four items related to monetary matters (i.e. income, savings, income tax and deposits). One item was kept for entertainment expenses per month while four items relate to housing (type and size). Item No. 15 (real estate) has been divided into three parts (A) agricultural land holding, (B) residential plots and their sizes, (C) shops and their locations. In order to cover life areas nine items relating to social, religious, political and academic participation have been included. Item no. 25 relates to household possessions (material and livestock). Thus the items in the scale were related to caste/class, occupation, family, education, income, housing, relational network and material and livestock possessions. Score on item no. 5, 7, 14, 15 and 25 were additive whereas on rest of the items only single score is given.

Reliability

Coefficient of stability was calculated by test-retest method. One hundred subjects were administered the SES scale. The coefficient of stability was found to be 0.653. Fifty subjects were administered the scale again and the coefficient of stability was 0.944. For
internal consistency Cronbach alpha was calculated on normalized T scores and was found to be 0.791.

VALIDITY

To assess the validity of the questionnaire, manifold criteria were set. Firstly, 150 subjects were asked to rate their own SES on a three point scale, 1 indicates low SES, 2 indicates middle class SES and 3 indicates high SES category. Secondly, the neighbours and colleagues of the respondents were also asked to rate the respondents’ SES. Thus, two types of criterion scores were available i.e. self ratings and other’s ratings. The ratings were correlated with the obtained SES scores, the coefficient of correlation between self and other’s rating was $r = 0.98$. Self ratings correlated with SES score positively, $r = 0.737$. Other’s rating were also found to be correlated significantly with SES scores, $r = 0.55$.

Thirdly, SES questionnaire of Singh and Saxena (1981) and present SES questionnaire were administered to 50 subjects simultaneously and the score of both correlated significantly to be the tune of $r = 0.689$. Fourthly, the factorial validity of the scale was also determined by factor analysis.

3.6.4 MODIFICATION OF SOCIO-ECONOMIC STATUS SCALE

Socio-economic status scale developed by Rajbir Singh, Radhey Shyam and Satis Kumar was modified and used for the present study. 8 items related to 4 aspects occupation, family type and size, educational qualification and financial condition of SES scale have been selected with the help of experts to identify the socio-economic condition of parents. The same scoring procedure has been followed by the investigator which was existed in the original SES scale for the selected 8 items.
Reliability

The 8 items have been applied to the samples of 48 undergraduate students (24 from boys and 24 from girls) comprising urban and rural population to find out the reliability of modified SES scale. Test- Retest method has been used for finding out the reliability of the above mention scale and reliability coefficient has been found .86.

Norms

The selected 8 items have been applied to 120 samples comprising boys and girls from urban and rural population. After that the collected data have been calculated and converted into T score with a mean 50 and SD of 10 and developed the levels of socio-economic condition of parents. Any person scoring 23 or below has been classified in low and scoring 41 and above has been classified in high SEC category. A person who has scored between 24 –28 falls in lower middle SEC, scoring between 29-34 in the average middle and 35-40 in the upper middle SEC categories.

3.7 STATISTICAL TECHNIQUES

The collected data are nothing other than raw data. So, the investigator needs to organise, classify and tabulate the collected data as she can apply them according to her purpose with the help of different statistical techniques. In the present study following statistical techniques have been used by the investigator –

1. Tables
2. Figures
3. Percentage
4. Mean
5. Standard Deviation
6. t- test
7. Coefficient of correlation (Product moment method)
8. T score
9. W/S test

3.8 SOURCES OF DATA

There are two sources of data collection for research purposes i.e. primary sources and secondary sources. In order to carry out the present study data have been collected from both the sources.

a. **Primary sources** – Primary data have been collected from the following sources -

2. Office of the Principals’ of all the Undergraduate Colleges of Dima Hasao District.
3. Sampled undergraduate students of three Undergraduate Colleges of Dima Hasao District.

b. **Secondary sources** – Secondary data have been collected from the following Sources –

1. K.K. Handique Library, Gauhati University, Ghy.
2. Shodhganga\textsuperscript{\textregistered}libnet.
5. Internet etc.
3.9 DATA COLLECTION PROCEDURE

The sample of the present study were scattered all over the Dima Hasao district as the area of the study was Dima Hasao district of Assam. Investigator visited the office of the Directorate of Higher Education, Kahilipara, Guwahati and collected the list of undergraduate colleges of Dima Hasao district affiliated to Assam University. Investigator personally visited the sample colleges for data collection after locating the different undergraduate college of Dima Hasao district. The research tools i.e. social intelligence scale, home environment scale & modified socio economic condition scale were used for collecting primary data from the samples. The investigator has sought permission from the Principals of the concerned colleges for collecting the necessary data from the respondents. Then every effort has been made to establish rapport with the respondents through personal contact. Before administering the data collection procedure, they have been made clear about the purpose of collecting data. They have also taken into confidence that their responses to the test items would be kept strictly confidential so that they have been responded without any hesitation. After that the tools have been distributed to the respondents by providing a specific time for collection. Later on the investigator has been collected the questionnaire from the respondents. The period of data collection ranged from July 2016 to June 2017.