CHAPTER-III

PLAN AND PROCEDURE

The specific and systematic process followed to reach the accurate solution of the problem selected, is procedure of the research. Every researcher tries his best to establish genuineness, authenticity and trustworthiness of the data collected. To achieve this, factual material or data, unknown or untapped so far, is essential in every study and has to be obtained from various sources, direct or indirect. So it is necessary to adopt a systematic procedure to collect the essential data, which helps a researcher to test the hypotheses of the study under investigation. Relevant data, adequate in quantity and quality should be sufficient, reliable and valid otherwise the investigator is sure to lose his aim in bewilderment. The present chapter thus proceeds to explain as follows:

III.1 SAMPLE SELECTION

Foundation of the research depends upon the sampling. It generally refers to the process of selecting a small part or specimen of something in order to determine some quality or characteristic of the whole. The whole process of research demands an appropriate and successful sample which would truly reflect the population. It is physically impossible to work out on the total population in any scientific investigation and such sample plays an important role. To work on a sample saves time, labour and expenditure of the investigator. A true sample produces greater precision and accuracy due to better controlling. Sampling is the important aspect of the whole research work.

The sample in the present study is based on the class XII students studying in various government as well as private higher secondary schools located in Jammu
province. Out of the ten districts of Jammu province, three districts viz. Jammu, Samba and Kathua were picked up randomly. A list of all the higher secondary schools of these three districts was procured from the Directorate of School Education, Jammu, out of which 33 schools were randomly chosen for the conduct of the present study. From each school, two sections/groups were selected randomly i.e. one from the arts stream and another from the science stream. Care was taken in making fair representation of boys and girls of different sociometric categories viz. neglected, rejected and isolate from the arts and science streams. The restricted sample comprised of 354 students (113 neglected, 135 rejected and 106 isolate) out of the initial sample of 1881 (Boys = 947; Girls = 934) students from arts (N = 953) and science (N = 928) streams, who were identified by using sociometric questionnaire. The details of sample are delineated in the Tables 1 to 3.
Table 1: Details of the sample taken from different schools of District Jammu.

<table>
<thead>
<tr>
<th>S.No</th>
<th>Name of school</th>
<th>N</th>
<th>Initial sample</th>
<th>Restricted sample</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td>Arts Group</td>
<td>Science Group</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>B</td>
<td>G</td>
<td>B</td>
</tr>
<tr>
<td>1</td>
<td>R.K.S Hr. Sec. School, Bishnah</td>
<td>46</td>
<td>27</td>
<td>19</td>
<td>-</td>
</tr>
<tr>
<td>2</td>
<td>S.D.E.R.I Hr. Sec. School, Bishnah</td>
<td>49</td>
<td>18</td>
<td>31</td>
<td>1</td>
</tr>
<tr>
<td>3</td>
<td>R.K Model Hr. Sec. School, Bari Brahma</td>
<td>39</td>
<td>22</td>
<td>17</td>
<td>1</td>
</tr>
<tr>
<td>4</td>
<td>Govt. Hr. Sec. School, Domana</td>
<td>61</td>
<td>38</td>
<td>23</td>
<td>1</td>
</tr>
<tr>
<td>5</td>
<td>Bright Future Hr. Sec. School, Domana</td>
<td>57</td>
<td>33</td>
<td>24</td>
<td>1</td>
</tr>
<tr>
<td>6</td>
<td>Oriental Hr. Sec. School, Akhnoor</td>
<td>76</td>
<td>47</td>
<td>29</td>
<td>1</td>
</tr>
<tr>
<td>7</td>
<td>Govt. Girls Hr. Sec. School, Akhnoor</td>
<td>56</td>
<td>31</td>
<td>25</td>
<td>-</td>
</tr>
<tr>
<td>8</td>
<td>Gandhi Memorial Hr. Sec. School, R. S. Pura</td>
<td>55</td>
<td>30</td>
<td>25</td>
<td>-</td>
</tr>
<tr>
<td>9</td>
<td>New National Hr. Sec. School, Miran Sahib</td>
<td>53</td>
<td>29</td>
<td>24</td>
<td>2</td>
</tr>
<tr>
<td>10</td>
<td>Montessori N.D. Hr. Sec. School, R. S. Pura</td>
<td>43</td>
<td>18</td>
<td>25</td>
<td>-</td>
</tr>
<tr>
<td>11</td>
<td>Little Flower Hr. Sec. School, Greater Kailash</td>
<td>80</td>
<td>49</td>
<td>31</td>
<td>3</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td></td>
<td>615</td>
<td>342</td>
<td>273</td>
<td>10</td>
</tr>
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</table>
Table 2: Details of the sample taken from different schools of District Samba.

<table>
<thead>
<tr>
<th>S.No</th>
<th>Name of school</th>
<th>N</th>
<th>Initial sample</th>
<th>Restricted sample</th>
<th>Isolate</th>
<th>Total</th>
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<tr>
<td></td>
<td></td>
<td></td>
<td>Arts Group</td>
<td>Science Group</td>
<td>Neglected Arts</td>
<td>Science</td>
</tr>
<tr>
<td>1</td>
<td>Vinod Vidya Mandir Hr. Sec. School, Ghagwal</td>
<td>42</td>
<td>19 B G</td>
<td>23 G</td>
<td>- 1 2 B</td>
<td>- 2 2 B</td>
</tr>
<tr>
<td>2</td>
<td>Shishu Niketan Hr. Sec. School, Samba</td>
<td>55</td>
<td>21 B G</td>
<td>34 G</td>
<td>- 1 1 1 1 B</td>
<td>- 2 2 B</td>
</tr>
<tr>
<td>3</td>
<td>New Light Hr. Sec. School, Balore</td>
<td>47</td>
<td>22 B G</td>
<td>25 G</td>
<td>1 - 1 1 1 B</td>
<td>2 1 1 2 B</td>
</tr>
<tr>
<td>4</td>
<td>Bal Shiksha Hr. Sec. School, Kalibari</td>
<td>51</td>
<td>24 B G</td>
<td>27 G</td>
<td>2 - 1 1 1 4</td>
<td>- 2 1 1 B</td>
</tr>
<tr>
<td>5</td>
<td>Adarsh Vidya Peeth Hr. Sec. School, Samba</td>
<td>85</td>
<td>46 B G</td>
<td>39 G</td>
<td>2 1 1 2 3 1 4 B</td>
<td>- 2 1 1 B</td>
</tr>
<tr>
<td>6</td>
<td>Vaid Hr. Sec. School, Vijaypur</td>
<td>58</td>
<td>33 B G</td>
<td>25 G</td>
<td>- - - - - - -</td>
<td>- - - -</td>
</tr>
<tr>
<td>7</td>
<td>Govt. Boys Hr. Sec. School, Samba</td>
<td>59</td>
<td>28 B G</td>
<td>31 G</td>
<td>3 - 1 1 - 2 -</td>
<td>- 2 - 2 B</td>
</tr>
<tr>
<td>8</td>
<td>Govt. Girls Hr. Sec. School, Samba</td>
<td>62</td>
<td>29 B G</td>
<td>33 G</td>
<td>- 2 - 2 - 3 -</td>
<td>- 3 - 3 B</td>
</tr>
<tr>
<td>9</td>
<td>Sri Arvind Gose Hr. Sec. School, Vijaypur</td>
<td>70</td>
<td>35 B G</td>
<td>35 G</td>
<td>- 2 - 2 - 2 -</td>
<td>- 2 - 2 B</td>
</tr>
<tr>
<td>10</td>
<td>Govt. Hr. Sec. School, Raj Pura</td>
<td>69</td>
<td>34 B G</td>
<td>35 G</td>
<td>- - - - - - -</td>
<td>- - - -</td>
</tr>
<tr>
<td>11</td>
<td>Govt. Hr. Sec. School, Sumb</td>
<td>69</td>
<td>34 B G</td>
<td>35 G</td>
<td>1 1 2 1 1 2 2</td>
<td>1 2 1 1 B</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>667</td>
<td>325 B G</td>
<td>342 G</td>
<td>09 08 08 10 14 11 15 09 09 10 08 09 120</td>
<td></td>
</tr>
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</table>
Table 3: Details of the sample taken from different schools of District Kathua.

<table>
<thead>
<tr>
<th>S.No</th>
<th>Name of school</th>
<th>N</th>
<th>Initial sample</th>
<th>Restricted sample</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td>Arts Group</td>
<td>Science Group</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>B G 1 1</td>
<td>1 1</td>
<td>1 1</td>
</tr>
<tr>
<td>1</td>
<td>Unique Model Hr. Sec. School, Chadwal</td>
<td>42</td>
<td>20  22</td>
<td>1 1 2 1 1 1 1 1 1 1 1</td>
<td>11</td>
</tr>
<tr>
<td>2</td>
<td>Rose Public Hr. Sec. School, Sanji More</td>
<td>48</td>
<td>27  21</td>
<td>1 1 2 1 1 1 1 2 1 1 1 1</td>
<td>13</td>
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<tr>
<td>3</td>
<td>Govt. Hr. Sec. School, Mareen</td>
<td>75</td>
<td>28  47</td>
<td>1 1 2 1 1 1 2 2 2 1 1 1</td>
<td>15</td>
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<tr>
<td>4</td>
<td>Amar National Hr. Sec. School, Mareen</td>
<td>82</td>
<td>38  44</td>
<td>1 1 2 1 1 1 2 1 1 1 1</td>
<td>17</td>
</tr>
<tr>
<td>5</td>
<td>Shashti Memor. Hr. Sec. School, Haripore More</td>
<td>39</td>
<td>19  20</td>
<td>1 1 1 1 1 1 1 1 1 1 1 1</td>
<td>12</td>
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<tr>
<td>6</td>
<td>Modern Hr. Sec. School, Haripore</td>
<td>45</td>
<td>25  20</td>
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<td>14</td>
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<tr>
<td>7</td>
<td>Public Model Hr. Sec. School, Hiranagar</td>
<td>57</td>
<td>23  34</td>
<td>1 1 2 1 1 1 2 1 1 1</td>
<td>10</td>
</tr>
<tr>
<td>8</td>
<td>Govt. Hr. Sec. School, Kootah</td>
<td>61</td>
<td>30  31</td>
<td>1 1 1 1 1 1 1 1 1 1 1 1</td>
<td>05</td>
</tr>
<tr>
<td>9</td>
<td>Babloo Vidya Peeth Hr. Sec. School, Kootah</td>
<td>37</td>
<td>21  16</td>
<td>1 1 1 1 1 1 1 1 1 1 1 1</td>
<td>09</td>
</tr>
<tr>
<td>10</td>
<td>Nav Adarsh Hr. Sec. School, Kathua</td>
<td>60</td>
<td>29  31</td>
<td>1 1 1 1 1 1 1 1 1 1 1 1</td>
<td>05</td>
</tr>
<tr>
<td>11</td>
<td>Modern Public Hr. Sec. School, Hiranagar</td>
<td>53</td>
<td>26  27</td>
<td>1 1 1 1 1 1 1 1 1 1 1 1</td>
<td>09</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>599</td>
<td>286 313</td>
<td>08 10 13 09 09 10 10 10 09 08 11 11 118</td>
<td></td>
</tr>
</tbody>
</table>
Classification of
Initial Sample of Students

Sample
N=1881

District Jammu
N=615

District Samba
N=667

District Kathua
N=599

Arts
Students
N=342

Science
Students
N=273

Arts
Students
N=325

Science
Students
N=342

Arts
Students
N=286

Science
Students
N=313

Boys
N=
146
Girls
N=
196
Boys
N=
142
Girls
N=
131
Boys
N=
152
Girls
N=
173
Boys
N=
193
Girls
N=
149
Boys
N=
141
Girls
N=
145
Boys
N=
173
Girls
N=
140
Classification of
Restricted Sample of Students

Sample
N=354

Neglected
N=113

Rejected
N=135

Isolate
N=106

Arts Students
N=56

Science Students
N=57

Arts Students
N=72

Science Students
N=63

Arts Students
N=52

Science Students
N=54

Boys
N=27

Girls
N=29

Boys
N=36

Girls
N=34

Boys
N=25

Girls
N=27

Boys
N=25

Girls
N=29
III.2 TOOLS EMPLOYED AND THEIR DESCRIPTION

For every type of educational research, a researcher needs certain tools to gather new facts or to explore new facts and fields. In the present study the following tools were employed for the collection of data, the description of which are given as under:

(a) Sociometric Questionnaire:

In the present study, Sociometric Questionnaire prepared by Dr. A.N. Sharma (Appendix-1) was used to identify three sociometric categories of students viz. neglected, rejected and isolate. It simply asked the students to choose from among themselves companions or partners for some specific activity or occasion that is real to them and also name those whom they would like last to have as companions or partners for that activity or occasion. The method of classifying the students into three categories was based on Bronfenbrenner’s fixed frame of reference. The details of Sociometric Questionnaire and procedure of collection and organization of Sociometric data is given completely at length in Chapter-IV.

(b) Jr. Sr. High School Personality Questionnaire (HSPQ):

For the present study, the investigator used the 1980 Hindi Version of Cattel’s (1968) Jr. Sr. High School Personality Questionnaire (HSPQ), Form-B prepared by S.D. Kapoor, S.S. Srivastava and G.N.P. Srivastava in Indian situation (Appendix-2). This test measures 14 distinct dimensions or traits of personality. These 14 traits help the researcher to obtain predictions of school achievement, vocational fitness, of danger of delinquency, of likelihood of leadership qualities, of need for clinical help in avoiding neurotic conditions etc.
The present test consists of 142 items and it can be administered individually or in groups. The test is administered without a time limit but can be completed in about 40 to 45 minutes. The scoring of the answer sheets (Appendix-3) is done with the streamlined hand stencil keys i.e. Key-1 and Key-2 (Appendix-4). With Key-1, out of 14 HSPQ factors, the factors A, C, E, G, I, O and Q are scored and with Key-2, the factors B, D, F, H, J, Q and Q are scored. The main standard scores are stens, in which a person can score from 1 to 10. To obtain standard scores (sten scores), the investigator converted the raw scores into sten scores by consulting the tables 3 & 4 from the booklet “Supplement of Norms” HSPQ (Appendix-5).

The reliability co-efficient for different factors with one form and at different time intervals as reported in the handbook of the test are quite high. Immediate retest results vary from 0.74 to 0.91; retest results after one day vary from 0.72 to 0.88; retest results after six months vary from 0.53 to 0.69 and retest results with one year interval vary from 0.33 to 0.69 for the 14 factors.

The validity of the test was found out by different methods. Direct validity, on the basis of multiple correlation of one form ranges from 0.57 to 0.77 and direct validities from equivalence of one form ranges from 0.52 to 0.71 for different factors. Direct concept validities by the method of computer synthesis for form A ranges from 0.58 to 0.77 for different factors. The detailed description of these fourteen H.S.P.Q factors is given in the manual (Appendix-6).

(c) Rosenzweig Picture-Frustration Study:

In the present study, the Indian adaptation of Rosenzweig Picture-Frustration Study (1968), Adult Form (Appendix-7) prepared by Dr. U. Pareek, in consultation with the author of the original American version Dr. S. Rosenzweig
was used. It was developed by a result of experiments with repression and frustration carried out by Dr. S. Rosenzweig. It is a controlled projective technique primarily intended to measure reactions to frustrating situations and designed to assess the repressed forces that underlie the human behavior. The adolescent projects something of his own inner world, his behavior tendencies, his desires and needs, and thereby reflects his own conflicts. Like the original study, the Indian adaptation consists of 24 cartoon like drawings representing frustrating situations, depicting two persons involved in a frustrating situation of common occurrence. One character in the drawings is shown saying something that causes frustration to the other person depicted. The subject is required to write in the space provided, what the other person would say in that situation. Like the original form, the Indian adaptation is intended for use with adults, but can be used with adolescents of age 14 years and over. The study can be administered in about 20 minutes, either individually or in groups. Both in individual and group administration, the subject has to write his own answer in the blank caption box, on the P-F Study booklet.

Both stability and scoring reliability of Indian adaptation of the Adult Form were determined by the author. The scoring reliability, as found by comparing the scoring reliability, as found by comparing the scoring by two independent scorers was quite high, the percentage of agreement increasing to 98 after discussions. Reliability co-efficients both for matrix reliability and item reliability were quite high. Stability co-efficients ranged from 0.27 to 0.82 and consistency values from 46 to 74. It is assumed that the response given by an individual has two dimensions which Rosenzweig calls ‘direction of aggression’ and ‘reaction type’. Each response is scored in terms of the combination of these two dimensions.
Rosenzweig classified responses to frustration into three directions: extragression (E-A), introgression (I-A) and imgression (M-A). In extragression responses the individual aggressively attributes the frustration to external person or things or in other words aggression is turned onto the environment. In introgression responses the individual aggressively attributes the frustration to himself/herself i.e. the aggression is turned by the subject upon himself and in imgression responses the individual glosses over the frustrating situation or in other words aggression is evaded in an attempt to gloss over the frustration. Similarly there are three types of reactions: Obstacle-dominance (O-D), Ego-defence (E-D) and Need-persistence (N-P). In the Obstacle-dominance type, the barrier occasioning the frustration stands out in the responses; in the Ego-defence type, the ego of the subject pre-dominates; while in the Need-persistence type, the solution of the problem is emphasized.

There are nine combinations (two dimensional) for each response. In addition to these nine combinations, two variants i.e. E (Variant of E) and I (Variant of I) used for superego factors, are also included, making a total of 11 scoring factors. In the present study all the 11 scoring categories have been considered independently. The principles, on which they were based as listed by Pareek and Rosenzweig (1968), were carefully followed and applied while scoring the responses given by the students. On the basis of Rosenzweig’s P.F.Study, the scoring was done and scores for each of the 11 scoring factors in case of every selected student was recorded. The brief description of these 11 scoring factors is as follows:

1. **Extrapeditive (E’):** The presence of the frustrating obstacle is insistently pointed out.
2. **Intropeditive (I’)**: The frustrating obstacle is construed as not frustrating or as in some way beneficial, or, in some instance, the subject emphasizes the extent of his embarrassment at being involved in instigating another’s frustration.

3. **Impeditive (M’)**: The obstacle in the frustrating situation is minimized almost to the point of denying its presence.

4. **Extrapunitive (E)**: Blame, hostility etc. are turned against some person or thing in the environment.

5. **Variant of Extrapunitive (E)**: In this variant of E, the subject aggressively denies that he is responsible for some offence with which he is changed (Most often applicable to superego situation).

6. **Intropunitive (I)**: Blame, censure etc. are directed by the subject upon himself.

7. **Variant of Intropunitive (I)**: In the variant of I, the subject admits his guilt but denies any essential fault by referring to the unavoidable circumstances.

8. **Impunitive (M)**: Blame for the frustration is evaded altogether, the situation being regarded as unavoidable; in particular, the ‘frustrating’ individual is absolved.

9. **Extrapersistive (e)**: A solution for the frustrating situation is emphatically expected of someone else.

10. **Intropersistive (i)**: Amends are offered by the subject, usually from a sense of guilt to solve the problem.
11. **Impersistive (m):** Expression is given to the hope that time or normally expected circumstances will bring about a solution of the problem; patience and conformity are characteristics.

The scoring for each student has been done on the score sheet (Appendix-8). For scoring purposes, the letters E, I and M are employed to signify the three directions-extragression, introgression and imgression responses of aggression respectively, in whatever combination with type of aggression. To indicate obstacle-dominance (O-D), an apostrophe (’) is written after the capital letters E, I and M. The ego-defence (E-D) types of extragressive, introgressive and imgressive responses are signed by the capital letters E, I and M, used alone. To indicate need-persistence (N-P) responses, small letters e, i and m are employed. The convention has been adopted of writing obstacle-dominance first, ego-defence second and need-persistence third in a three-columnar or arrangement: O-D/ E-D/ N-P.

**(d) Problem Check-List (PCL):**

The investigator used the Hindi version of Problem Check-List (PCL) prepared by Dr. M.C. Joshi and Dr. Jagadish Pandey, 1964, (Appendix-9). It aims at measuring problems of adolescents in eleven areas. In each area there are 30 items and in total 330 items in the PCL. The eleven problem areas are: 1. Health & Physical Development (HPD); 2. Finance, Living Conditions & Employment (FLE); 3. Social & Recreational Activities (SRA); 4. Courtship-Sex & Marriage (CSM); 5. Social-Psychological Relations (SPR); 6. Personal- Psychological Relations (PPR); 7. Moral & Religion (MR); 8. Home & Family (HF); 9. The Future: Vocational & Educational (FVE); 10. Adjustment to School Work (ASW)
11. Curriculum & Teaching Procedure (CTP). This Problem Check-List is self-administering. All the directions needed are given on the first page of the Check-List. The students were asked to go through the Check-List and cross out the serial number of problems which are bothering them, on the answer sheet (Appendix-10). The Check-List is not time bound but it takes about one hour to complete.

The reliability co-efficients for different areas of PCL at different time intervals are given in the manual (Appendix-12). Test-retest (ten weeks interval) results vary from 0.494 to 0.832; split-half (15 days interval) results may vary from 0.672 to 0.890. The standard error measurement results vary from 1.64 to 3.93 and the index of reliability results vary from 0.85 to 0.94 for eleven areas. The total reliability co-efficient of Test-retest (10 weeks interval) on PCL is 0.710 and the split-half (15 days interval) is 0.900. The standard error measurement is 8.97 and the index of reliability is 0.95. The other details regarding external validity, content validity, norms etc. are provided in the manual of PCL itself. For scoring purpose, eleven handmade stencil type of scoring keys for different areas are used (Appendix-11). The total number of problems in different areas yields the total problems of the subject.

High score on PCL indicates poor adjustment.

III.3 ADMINISTRATION OF TOOLS AND DATA COLLECTION

Letters of authority from the worthy supervisor of the investigator and the Head of the Department of Education, University of Jammu, Jammu enabled the investigator to secure co-operation of Heads of different institutions for the administration of his tools to collect the data. Dates convenient for the administration of tools were fixed after consulting various Heads of the
institutions. The investigator personally with the help of staff members of the institutions administered different tools. While administering the different tools, the investigator made it sure that the students to whom these tests were administered are comfortably seated to make their responses at ease and with calm and composed mind. It was also made sure that they were seated at a suitable distance from one another to avoid chances of sharing or copying from each other and to enable them to give their view points independently. In order to avoid fatigue effect and create maximum motivation and rapport with the students, the complete data was collected in three days from each school.

The present investigation involved the identification of different Sociometric groups of students in the class i.e. neglected, rejected and isolate students. So, on the very first day in a school, two groups, one from the arts stream and another from the science stream of class-XII were considered for identification purposes. The Sociometric Questionnaire prepared by Dr. A.N. Sharma was administered one by one to both the groups, having students not less than 15 and more than 50, in order to identify the neglected, rejected and isolate students. After the administration of Sociometric Questionnaire, the investigator needed a gap of one day which he utilized for the preparation of Sociomatrices in order to organize and analyze the sociometric data for the identification of neglected, rejected and isolate students, both from the arts and science stream groups, respectively.

On the next day, the investigator administered two tools viz. Jr. Sr. HSPQ and the Rosenzweig Picture-Frustration Study to the identified neglected, rejected and isolate students. As Rosenzweig P-F Study is a projective technique, it took a lot of time in understanding the process of administration and scoring of subjects’
responses and interpreting them being a projective test. On the third day in the school, the investigator administered the last tool i.e. Problem Check-List (PCL) to the identified group of students.

In this way the investigator spent minimum three days in a particular school for the identification process and administration of different tools. During the administration of tools the test Booklets and Questionnaire were distributed to the students one at a time and they were asked to read silently the instructions given on the cover page of the test booklets. Instructions were also provided tool-wise and query-wise when required. Individual help was also given to the students whenever needed. The test booklets along with their answer sheets and questionnaires were collected back from the students and then scoring of the responses was done with the help of the keys and as per the guidelines provided in the manuals of different tools. The raw scores of boys and girls from arts and science streams obtained through different tools are appended at 13a to 13d, 14a to 14d and 15a to 15d respectively.

III.4  STATISTICAL TECHNIQUES EMPLOYED

The raw scores themselves do not reveal anything unless they are analyzed statistically. In the present investigation, the following statistical techniques were employed for the analysis of data:

1. Bartlett’s Test of Homogeneity was employed for testing the homogeneity of variance, as one of the assumptions of Analysis of variance (ANOVA).

2. Three–way (3×2×2) Analysis of variance technique was employed for finding out the significant differences and interactional effects of the variables under study.
3. POST ANOVA (t–ratio technique) was employed for finding out the significant differences in the mean values of HSPQ factors of students belonging to different sociometric categories.

4. Mean and S D. The C R Technique was employed to the mean values based on eleven patterns of reactions to frustration and eleven problem areas of students in order to find out the differences between the students belonging to different groups based on sociometric categories, sex and academic stream.

5. Chi–Square (χ²) technique was employed for testing the hypothesis of independence of variables between sociometric categories & sex and sociometric categories & academic stream.