CHAPTER – III

METHODOLOGY
CHAPTER – III
METHODOLOGY

3.1.0: APPROACH FOR THE STUDY

As dictated by the objectives formulated in the present research study the investigator has reasoned out that a descriptive survey approach under quantitative paradigm is the best feasible approach. The main issues dealt by the present investigator are to describe the status of some variables pertaining to the secondary school-going scheduled tribe students and also to study some specified relationships among those variables. Therefore, it is a present-oriented research study.

3.2.0: VARIABLES INVOLVED

The variables involved in this descriptive survey are:

i) Directions of Aggression: Extraggression (E-A), Inraggression (I-A) and Imagination (M-A);

ii) Sex: Male and Female;

iii) Residence: Rural and Urban;

iv) Sense of Deprivation;

v) Attitude to School;

vi) Academic Motivation;

vii) Locus of Control and

viii) Academic Achievement.

3.3.0: SAMPLE AND SAMPING DESIGN

The present researcher has used the Directory of Educational Institutions published by West Bengal Board of Secondary Education (WBBSE) to examine and to note down the basic information of recognized secondary schools situated in the District of Purba Medinipur. Then he has purposively selected 27 Bengali-medium secondary schools coeducational, (boys’ and girls’) duly recognized by the West Bengal Board of Secondary Education situated within the jurisdiction of the district of Purba Medinipur, which is educationally vibrating district in the State of West Bengal as revealed in the analysis of district-wise school examination results (Madhyamik and Uchcha Madhyamik) for a long year. These schools are scattered over a large geographical area under the jurisdiction of four administrative sub-divisions (Contai, Haldia, Tamluk and Egra) of Purba Medinipur district.
Obviously, heads of these 27 schools kindly gave their kind permission to collect data. Further, these schools do not admit exclusively the scheduled tribe students, rather there is a school student population including all categories of students like scheduled castes, scheduled tribes and general caste-children in which the percentage of the scheduled tribe student enrolment is generally low in comparison to other students. In reality, in this district the scheduled tribes are scattered over a large geographical area, the investigator has reasoned out to select as many as 27 schools to collect data from an adequately large number of scheduled tribe students usually required for a survey research. The detailed description of the sampled scheduled tribe students belonging to all the 27 secondary schools has been inserted in Appendix–I.

As per objectives of the present study the present researcher is required to identify the scheduled tribe students enrolled in the available secondary schools and then to administer his tools for his study. Therefore, he had to collect data from 27 secondary schools considering the school as a cluster of this study. Obviously, the schools are situated in both rural and urban areas. The selected scheduled tribe students enrolled in the Bengali-medium schools may be assumed to suffer from a linguistic conflict as their home language is not school language -Bengali. However, this a reality and the present investigator has no control over this phenomenon.

Out of the selected 27 secondary schools, 5 schools are girls’ schools, and 22 schools are co-educational schools. Further, 18 schools are situated in rural areas and 9 schools are situated in urban areas. Such uneven distribution of girls’ and co-educational schools as well as rural and urban areas located secondary schools are common features in the district of Purba Medinipur. As per objective of the present survey, only the scheduled tribe students of seventh and eighth grades were selected for this study.

Sampling in this study constitutes two phases : available scheduled tribe students from the purposively selected 27 schools (first phase), and then adaptation of stratified random sampling technique to select the second phase or the final sample of the study.

A brief description of the first-phase sample is shown as :

<table>
<thead>
<tr>
<th></th>
<th>Male</th>
<th>Female</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rural</td>
<td>179</td>
<td>149</td>
<td>328 (60%)</td>
</tr>
<tr>
<td>Urban</td>
<td>107</td>
<td>110</td>
<td>217 (40%)</td>
</tr>
<tr>
<td>Total</td>
<td>286 (52%)</td>
<td>259 (48%)</td>
<td>545</td>
</tr>
</tbody>
</table>
The contents of the Table 3.1 show that out of the total 545 S.T. students the number of male and female students are respectively 286 (52%) and 259 (48%). That is, the male students outnumber the female students which are very common in present school students’ population in this State, especially when the students belong to the scheduled tribe communities. Further, the number of rural and urban selected S.T. students are respectively 328 (60%) and 217(40%) which is quite natural.

The investigator has reasoned out that for the purpose of controlling the possible influences of various situational and personal variables in this study, randomization within above four categories [Sex-2 and Location-2] (as shown in the Table 3.1) of selected S.T. students form 27 schools should be been employed for reducing the errors of estimate and he did this and the resulting description of the second phase final of total size of the sample of 360 as shown in Table 3.2.

| Table 3.2 : Brief Statistics for the Final Sample |
|-------------------------------------|-----|-----|
| Rural                               | Male| Female| Total |
|                                     | 100 | 80    | 180   |
| Urban                               | 100 | 80    | 180   |
| Total                               | 200 | 160   | 360   |

The contents of the Table 3.2 show that the second phase or final sample contains 180 rural scheduled tribe students and the remaining 180 such students belong to urban areas in order to keep a balance in the rural-urban partitions in the total sample of 360, which is approximately 66% of the schools selected in the first phase sample. Again, there were 200 male scheduled tribe students of which 100 subjects belong to rural areas and the remaining 100 subjects belong to urban areas to make these two groups equal in numbers. Further, the second phase sample contains 160 female scheduled caste students representing 80 from rural areas and also 80 from urban areas.

Considering the objectives of the present study such balances in the final sample have been reasonably designed to make statistical errors to a minimum level.

At the end two figures, viz., Fig. 3.1 and 3.2 presenting pictorial view of the present sample are inserted below.
Fig. 3.1 : Showing a Map of Purba Medinipur District
Fig. 3.2: Showing the Location of the Selected Schools in the District
3.4.0: ASSESSMENT OF VARIABLES

Following tools have been administered to the sampled secondary scheduled tribe students for collecting data in terms of the variables involved in this research study.

3.4.1: ASSESSMENT OF REACTIONS TO FRUSTRATION – DIRECTIONS OF AGGRESSION

Description:

The present investigator administered the Reactions to Frustration Test (RFT) to the scheduled tribe secondary school students for assessment of their three directions of aggression. This instrument, developed and standardized by Biswas (1988), is a semi-projective test in Bengali to assess reactions to frustration of secondary school students. It is designed on the model of the Rosenzweig’s Picture- Frustration Study Technique (1945) which lies mid-way between the so-called Word Association Test and the TAT; therefore, the assumptions and constructs of the original Picture-Frustration Study have been followed in this present instrument.

The contents of the RFT are 24 cartoons like stimulus pictures each depicting common frustrating situations generally found in home and school environments and to which Bengalee secondary school children are encountered in their daily life. To maintain the projective characteristics of the test facial and other expressions of emotion are deliberately omitted from the pictures. Each picture shows at least two persons who are in conversation to each other. The figure at the left is saying some words which are printed in the box above the position of the speaker. The dialogues are so designed that they will either help to describe the frustration of the other individual in the picture or they are themselves actually frustrating to her / him. The other person on the right is shown with a blank box above. The respondent is instructed to examine the situations once at a time and write in the blank box the reply that comes in her / his mind.

This instrument bears some basic principles of projective tests. The RFT being semi-projective in design does not assess molar aspect of personality; on the contrary, it assesses the reaction to frustration. Further, this test assumes that an individual while responding to various frustrating situations identifies himself with the frustrated individual pictured in the test and therefore projects his inner fantasies and motives in the responses he makes or writes and thus the several responses may be taken as a sample of repertoire of his repertoire of reaction patterns in situations of frustration.

The RFT consists of both Ego-blocking and Superego-blocking situation as
conceptualized by Rosenzweig (1945). “Ego-blocking situation are those in which some obstacle, Personal or impersonal, interrupts, disappoints, deprives or otherwise frustrates the person depicted on the right [of the picture]. Superego-blocking represents some accusation, charge or incrimination of the anonymous person-. The distinction is not regarded as absolute since a subject my interpret a super ego. Blocking situation as ego-blocking situation or an ego-blocking situation as situation as superego-blocking”, (Rosenzweig and others, 1948 : 143). In this test, out of the total 24 situations, there are only eight Superego-blocking situations (6, 7, 9, 10, 14, 15, 16, and 18) and the rest sixteen situations are of Ego-blocking type.

The RFT bears some other features. Special efforts have been made to include in the test (i) situation most common to the secondary school children; (ii) six types of frustrating situations proposed by Rosenzweig (1944) – privation (external and internal), deprivation (external and internal) and conflict (internal and external); (iii) frustrations of various needs, such as, affiliation, achievement, autonomy, dependence, harm-avoidance, etc.; (iv) all the possible frustrater-frustratee interrelationships such as male-boy, female-boy, male-girl, female-girl, boy-boy, boy-girl and girl-boy in right proportion; (iv) situation representing home and school environments in equal proportion; and (v) first twelve cartoons and the last twelve cartoons in equivalent proportion.

Some situations of the RFT may be illustrated below:

A late comer (girl) in the examination hall is told by a woman (teacher) “Why are you so late? Existing rule does not permit you to sit for the examination.” [Test Situation No.– 04]

Within a class-room a boy is accusing of his class-mate (girl), “Why have you made false allegation against me to the headmaster?” [Test Situation No. – 16]

A man (teacher) tells a boy who intends to participate in a drama to be staged in the school, “Actors need good physic/figure, excellent tone and skill in acting. You have none of these qualifications.” [Test Situation No. – 24]

**Standardization:**

Every effort was taken into consideration to suit the RFT for Bengali-speaking secondary school children. Frustrating situations included in the test were very common to the life of those groups of children and every cartoon was so draw that it represented either home or school environment of such children. The present form of the test was made on the basis of an earlier experimental form for which different samples of school children, secondary school teachers and parents were used for the collection of the most common
frustrating situations to which the subjects are generally encountered. Throughout the development of the test, co-operation and suggestions were sought from different experts.

**Reliability** of the RFT was determined through various approaches. Inter-scorer reliability, as assessed by comparing the scoring the same protocols by two independent scores was quite high; the percent of agreement ranged from 75 to 89, the median was 90. Item consistency calculated on the basis of Bernard’s method (1949) ranged from 48 to 77. Reliability of the test recorded stability and internal consistency (through low) of the RFT within the limit of the projective tests. Stability co-efficient with an interval of four weeks, ranged from 0.36 to 0.83 for all the reaction patterns including GCR. Co-efficient of internal consistency, measured by dividing the test into two halves (first 12 items and last 12 items), ranged from 0.25 to 0.75 (only for Directions and Types of Aggression).

**Validity** of the RFT was also satisfactory. Construct validity was estimated by calculating mean shifts of reactions to frustration when a group of subjects were administered the test in two occasions: (i) in the normal condition and (ii) just after the subjects had experienced an artificially induced frustration session. The shifts of reactions were in congruent with the Rosenzweig’s theory of frustration. Concurrent validity was found satisfactory by correlating two sets of responses made by a group of subject in the RFT as well as in the Sharma School Situation Reactions to Frustration Test.

**Norms** have been calculated on the basis of responses made by 904 high school children studying in the 6th, 7th and 8th grades and belonging to rural, industrial and urban sectors in West Bengal. Sex-wise, Grade-wise, Area of Residences-wise and the composite norms were calculated in terms of Mean & Standard Deviation and Percentiles. These norms have been printed in the Manual.

**Instructions for Administration**

**Instructions:**

English version of instructions of the instrument is given below:

“Some pictures have been printed in this booklet. In each of these pictures two people are shown talking to each other. The words said by one person are always given. Read these persons in the picture would answer. Write in the blank box the very reply that comes into your mind. Work as fast as you can. Don’t omit any picture.”

Instructions in Bengali have been printed in the front page of the test booklet.
Administration:

The test may be administered in 20–30 minutes either to individual or group. In the standard group administration procedure, after distributing the test book-let, to the subjects, the investigator reads aloud the instructions printed in the front page of the book-let, and he asks the testees to read them silently. The book-let is then opened, so also the tests do, the first item is read aloud to the subject as he/she reads the same silently and then the subject is told as a demonstration what reply first comes to her / his mind. The investigator at this point would emphatically instruct that the subjects are required to write down the very first answer which occurs in one’s mind as being said by the person depicted in the pictured situation, when the examiner feels that the testees have understood the instructions clearly, they are told to write down their answers in the first person in the blank caption box, in sequence omitting none.

In case of brief and ambiguous answer, an enquiry may be made either to amplify them for their proper scoring or to be made either to amplify them for their proper scoring or to afford the necessary information with respect to the intrinsic combination of scores. A good report between the tester and testee must be established during administration of the test.

The administration has no time limit, but it is emphasized that the testee should reply as fast as possible. An unnecessary delay in giving reply, it was assumed, may be colored with censors made by the testee, thus violating the general principle of projective techniques. Scoring principles as well as manuals in Bengali in details have been prepared by Biswas (1988) and the present investigator has used them meticulously.

3.4.2: The Family Problems Identification Questionnaire (FPIQ)

This questionnaire has been used in this study to determine the sense of deprivation at home of the school going tribal students involved in the present survey research. The Family Problems Identification Questionnaire (FPIQ), a Bengali-language self-reporting questionnaire, has been originally constructed and standardized by Das (2008) in connection with his Ph. D. research. The present investigator has used the FPIQ without any modification and with due permission from him.

The FPIQ is a 22-item questionnaire, each item having two response alternatives: (a) always true, and (b) always false. Each of the 22 items has been expressed in one simple and small Bengali sentence easily comprehensible to the school going tribal students. Moreover, each item has indicated some kind of family-based deprivation related to the
students’ material or basic psychological well-being, especially linked to their studies at school. For a particular item, a respondent is required to put tick (✓) marks against either (a) or (b). The (a) option is keyed expressing deprivation with a weight of 1(one) and the (b) is keyed not expressing deprivation with a weight of 0 (zero). That is, according to the FPIQ the maximum ceiling of a total score of 22 only, while the minimum score is 0 (zero).

Das (2008) reports the dimensions of the FPIQ as shown below:

<table>
<thead>
<tr>
<th>Dimensions</th>
<th>Item Numbers</th>
</tr>
</thead>
<tbody>
<tr>
<td>Physical conditions of the study room, light, air circulation,</td>
<td>1, 5, 6, 15, 19, 20 (6 items)</td>
</tr>
<tr>
<td>recreational facilities, etc.</td>
<td></td>
</tr>
<tr>
<td>Availability of books, stationeries, uniform, private tutor, etc</td>
<td>2, 3, 4, 6, 7 (5 items)</td>
</tr>
<tr>
<td>Availability of various kinds of educational guidance services,</td>
<td>8, 9, 10, 13, 16, 17, 21 (7 items)</td>
</tr>
<tr>
<td>attitude of parents or guardians toward the child’s education</td>
<td></td>
</tr>
<tr>
<td>and educational attainment level, etc.</td>
<td></td>
</tr>
<tr>
<td>Engagement in domestic work, experiences form physical</td>
<td>11, 12 (2 items)</td>
</tr>
<tr>
<td>constraints, lack of provisions for maintaining physical, etc.</td>
<td></td>
</tr>
<tr>
<td>Conditions relating to home climate, language, food, distance</td>
<td>18, 22 (2 items)</td>
</tr>
<tr>
<td>of school from home, etc.</td>
<td></td>
</tr>
</tbody>
</table>

Das (2008) estimated both reliability and validity of the FPIQ. He has also calculated norms over randomly selected 461 scheduled caste seventh grade students in terms of mean, median, SD, etc. and also norms in terms of percentiles.

3.4.3: I-E (INTERNALITY–EXTERNALLITY) SCALE

The I-E Scale prepared and standardized by Biswas (1992) has been used in this survey study. It is a 28-item Bengali language instrument with six (6) filler items for assessment of locus of control (internal-external) of subjects’ behaviors. The theory behind the concept of locus of control (internal-external) is rooted in the generalized expectancies for internal – external control of behavior (Rotter, 1966).

Jullian B. Rotter is credited for introducing the concept of locus of control. He was, however, highly influenced by the work of the social learning theory of Bandura. Rotter explains humans can interpret events as being either a result of one’s own actions or external factors. He suggests that whether or not people believe a situation or event is under their own
control will influence their reward expectancy and behavior.

This instrument has been by Biswas (1992) on the basis of two earlier instruments –
the I-E Scale (Rotter, 1966) and the Intellectual Achievement Responsibility Scale (Crandall,
Katkovsky, and Prestron, 1962). This scale contains 28 forced choice items pertaining to
different areas of behavior, such as achievement, affection, general social desirability etc.
After meticulous item-analysis of the first draft of the Bengali language I-E- Scale, these
items have been retained for the final version of the present scale.

Reliability of this I-E Scale is very satisfactory: split-half reliability coefficient is
reported as equal to 0.68 (n=200) and the test-retest reliability coefficient is reported as equal
to 0.61 (n=100, interval = one month). This I-E Scale correlated highly with the translated
version of the Rotter I-E Scale (r = 0.81, n=100). Norms in terms of mean and sd., and also
percentile norms were determined by Biswas (1992)

This scale may be administered either in a group or individual without any time limit.
Each item of this scale has two alternatives responses (a) and (b) and a respondent is
requested to express her / his own response / belief by putting tick (✓) mark in appropriate
(either a or b) choices.

Score of I is assigned to 2a, 3b, 5b, 6a, 7a, 8a, 9b, 10b, 11b, 13b, 15a, 16a, 17a, 18a,
20a, 21a, 22b, 23a, 24a, 25a, 27b, 28a. Item numbers 1, 4, 12, 14, 19, 26 are fillers, no score
is assigned. High score in this scale indicates externality of the respondent.

3.4.4 : ACADEMIC MOTIVATION INVENTORY (AMI)

For the assessment of academic motivation of the subjects in this study a modified
Bengali version of Academic Motivation Inventory developed and standardized by Biswas
(2010) has been used. This concept has been introduced by Entwistle (1968) to explain some
of the differences in school attainment of students with similar measured abilities. It is held as
a more specific personality trait achievement motivation. This concept has been borrowed
from the research studies of Entwistle (1968) and Finger and Schlesser (1962). Resultantly,
the term ‘academic motivation’ means one’s determination to succeed in academic studies.

In this modified Bengali version of the Academic Motivation Inventory, it is held that
two factors constitute one’s academic motivation – academic aspiration and study habits.
Academic aspiration means a student’s aims, goals, hopes, desire, targets that s/he sets for her
/himself in the tasks of academic achievement. Study refers to application of energy directed
toward the learning new materials, the solutions of problems, the discovery of new
relationships or similar purposeful activities on the part of the learner. And study habits
involve governing one’s will, setting up high and right purposes, and concentrating one’s energies, efforts, and capacities in systematic methods, techniques and styles. When these two factors combine together and help the individual in her / his determination to get desired success in academic activities these will result in academic motivation of the individual. It comprises 51 forced-choice items.

**Table 3.4: Dimensions of Academic Motivation Inventory**

<table>
<thead>
<tr>
<th>Dimensions</th>
<th>Item No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Academic</td>
<td>28 (1, 2, 3, 5, 6, 7, 8, 9, 11, 13, 14, 16, 17, 19, 20, 22, 24, 26, 28, 30, 31, 33, 34, 36, 37, 38, 42, 43)</td>
</tr>
<tr>
<td>Aspiration</td>
<td></td>
</tr>
<tr>
<td>Study Habits</td>
<td>23 (4, 10, 12, 15, 18, 21, 23, 25, 27, 29, 32, 35, 39, 40, 41, 44, 45, 46, 47, 48, 49, 50, 51)</td>
</tr>
</tbody>
</table>

Each item contains two choices (a) and (b). The respondent is required to choose one of these choices. For the dimension of academic aspiration the following alternatives are scored 1(one) each: 1a, 2b, 3a, 5b, 6a, 7b, 8a, 9b, 11a, 13a, 14a, 16a, 17a, 19a, 20a, 22a, 24a, 26b, 28a, 30a, 31a, 33a, 34a, 36b, 37b, 38b, 42a, 43a and for the dimension of study habits the following alternatives are scored 1(one), each: 4a, 10b, 12b, 15a, 18b, 21b, 23a, 25a, 27a, 29b, 32b, 35b, 39a, 40a, 41a, 44a, 45a, 46a, 47a, 48a, 49a, 50a, 51a.

In both the cases the other possible choices against the respective item score of 0 (zero) is assigned. The high score indicates the high extent of the two factors considered.

The sum of total scores of these two dimensions for an individual constitutes her / his academic motivation score.

This instrument is reported to have reliability and validity. Test-retest reliability coefficient has been determined after administering it twice on a group of 70 eighth grade students of either sex in an interval of one month and the obtained ‘r’ of 0.79 is found which is statistically significant at 0.01 level. Besides content validity of this instrument concurrent validity of it has been estimated. The earlier Bengali version of the AMI (Biswas, 2008) and this instrument were administered to 70 eighth grade students simultaneously and these two sets of scores have been correlated, the ‘r’ is found equal to 0.56 which is significant at 0.01 level. This value ensures sufficient concurrent validity of the instrument. Further, norms in terms of mean and standard deviation have been reported.

**3.4.5: ATTITUDE TOWARD SCHOOL INVENTORY (ASI)**

The present researcher has used the Attitude toward School Inventory (ASI) (Biswas,
2010b). The ASI has been developed on the assumption that students’ attitude to school ultimately connotes their personal motive that determine their school success including academic attainment. Students’ attitude toward school serves as a motive that helps developing their deep and relatively enduring feelings and exerts energy to fulfill things that school expects of them as students. This construct mean a mental readiness or mental set of students to react favorably to educationally significant situations in the school environment and educational practices at school so as to make the best utilization of all school facilities and resources leading to academic development of them.

This inventory contains 21 force-choice items selected after item-analysis of a pool of 30 items assembled in its first draft. Majority of the items in its first draft have been selected form the AMI (Biswas, 2008) and some items have been constructed by experts.

Each item has two response alternatives indicated by (a) and (b). Respondents choice of the following alternatives indicate their positive attitude toward school and for each item a score of 1(one) is assigned and the other choice is given a score of 0(zero). Sum of scores indicates a respondent’s total score.

For this instrument a score of 1 is assigned to the following alternative choices : 1a, 2a, 3a, 4b, 5b, 6b, 7b, 8a, 9a, 10a, 11b, 12b, 13b, 14b, 15b, 16a, 17a, 18b, 19b, 20a, 21a.

The ASI is reported to have reliability and validity. Test-retest reliability co-efficient has been determined after administering it twice on a group of 70 eighth grade students of either sex in an interval of one month and the obtained ‘r’ of 0.76 is found which is statistically significant at 0.01 level. Besides content validity of this instrument concurrent validity of it has been estimated. The attitude toward school component of the earlier Bengali version of the AMI (Biswas, 2008) and this instrument were administered to 70 eighth grade students simultaneously and these two sets of scores have been correlated, the obtained ‘r’ is found equal to 0.54 which is significant at 0.01 level. This value ensures sufficient concurrent validity. Further, norms in terms of mean and standard deviation have been reported.

3.4.6 : ACADEMIC ACHIEVEMENT

Total examination results of the selected scheduled tribe students have been collected from their school records first, and then the total number in all subjects obtained by each student was converted into percentage to assign her / his academic achievement score.

3.5.0 : DESIGN FOR THE STUDY

This sub-section will deal with only the data analysis design for the purpose testing
null-hypotheses formulated for the present survey study. Obviously, here parametric ‘t’-test has been applied with the assumption that the collected data comply with the basics of parametric model of testing of null-hypotheses at 0.5 level of significance with is usual practice in social sciences including education.

In studying the relations between variables two criterion groups have been on the basis of scores for three directions of aggression. The high group and the low group constitute upper 27 % and lower 27% of subjects respectively in the three directions of aggression for the sampled secondary school going scheduled tribe students.

Basically, there are noticed three sectors or layers of data analysis : (a) study of sex-differences in the selected variables, (b) study of locale (rural vs. urban) variations in the selected variables, and (c) study of relationships of the three directions of aggression with each of the remaining variables. In the section (a) rural-urban factors have been crossed with the male-female segregation; and in section (c) two criterion groups have been made on the basis of each of the three directions of aggression (E-A, I-A and M-A).

3.6.0 : PROCEDURES FOLLOWED

First the investigator contacted with the a large number of heads of as many as fifty secondary schools in Purba-Medinipur district and forwarded a letter to each of them mentioning his purpose and appealed them to extend their helping hands for rendering formal permission for data collection in school exclusively for this investigation. He later on got permission from 35 heads of institutions. Next, the investigator selected 27 schools on the consideration that these schools cover different geographical areas representing the district of Purba Medinipur, W.B. The investigator prepared a detailed schedule for the administration of the tools for the study in consultation of the respective heads of the selected secondary schools. He followed the general principles as well as the needed instructions concerned with each of the self-reporting tools used in the study. Very cordial data collection environment was always maintained so that respondents felt enough freedom of expression and non-threatening feelings while they responded against each of the tools. At every data collection setting, the students were given time so that they responded to each task without much haste as none of the tools administered was timed-test.

In each of selected 27 schools the investigator himself administered all the five instruments in two consecutive days. On the first day the Biswas Reactions to Frustration was administered very carefully as it is a semi-projective test with 24 items which was entirely new task to the students and they are required to write down their own reactions against each
of the 24 cartoon pictures (items). The selected students usually took about 20 minutes to understand how to respond as per demand of the semi-projective test. In the next 30 minutes, the students wrote their answers (reactions) on a blank sheet supplied to them. However, they were requested to write down their own identity (name, class, name of school, etc.). After completion of each student's tasks the test booklet as well their response sheet were collected. After a pause of about 10 minutes, the students were given the Family Problems Identification Questionnaire which is a self-reporting tool. The investigator explained them how to respond the items of this tool. Finally, the students gave their respective responses on the specific space against each item. It took just 30 minutes to complete the second task of the first day.

On the following day the students were administered the remaining three tools like I-E Scale, Attitude to School Inventory and Academic Motivation Inventory one by one with usual pause in-between the three sub-session of testing. In every sub-session, the investigator explained the students for their specific tasks to be performed in case of the above three administration of tools. On the second day the whole tasks was completed in about 70 minutes.

In this way the investigator collected his data from all the 27 schools. It took about 3 months to complete data collection. Finally, he thanked the concerned heads the schools and students who cooperated very cordially although the data collection sessions.

Next, the investigator scored the test responses as per concerned manual of each tool used and obtained data were put in a grand data sheet.