CHAPTER IV

PLANNING AND PROCEDURE

CONTENTS

4.0.0 Introduction
4.1.0 Selection of the Methodology
4.2.0 Selection of Tools of Measurement
4.3.0 Frustration Inventory
  4.3.1 Common Characteristics
4.4.0 Intelligence Test
  4.4.1 General Description
  4.4.2 Psychometric Properties
4.5.0 SES
  4.5.1 General Description
  4.5.2 Psychometric Properties
4.6.0 Administration of the Scale
4.7.0 Scoring of the Inventory
4.0.0 Introduction

Indian society is under rapid change and therefore the aims of education are also changing. The present world and if affairs have become extremely complex. If any work is to be carried out and completed meaningfully, it needs to be well planned, and more so when its executive time spans over a longer period without careful planning in conceivable damages have been done to and losses incurred by studies. Therefore, the investigator needs meticulous care in its planning and execution.

In this way for proper investigation from which significant and fruitful results may emerge out, it is always essential to have proper and thoughtful planning and well checked out steps of procedure.

In the first stage, the investigator has to survey the related literature, not only finding problems but also in selecting methods and tools to be employed and in the interpretation of the data gathered. For the study of this problem, the investigator has gone through the literature related to the problem.
4.1.0 Selection of the Methodology

Since there are different methods and approaches to study a problem, it is necessary that the method selected must be helpful in all steps of studying that particular problem. So one more thing that research worker has to learn is the various methods of educational research and together with it is the certain characteristics of each of them. Sukhia and others classify the methods of educational research as follows:

1. The historical method
2. The normative survey method
3. The experimental method
4. The causal comparative, the correlation, the case study, and the genetic method.

The characteristics of these methods have been briefly described below:

Historical research talks about the history dealing with the past and not present. It is also related with the events, persons and places.

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Normative survey method searches for the condition or relationship of existence, practices, beliefs, attitudes, ideas processes, effects or trends of particular time.

Experimental research is the classical methodology of science laboratory which needs an analysis of what will be or what will occur under controlled conditions.

Causal comparative method seeks for causes and effects of the phenomena. The correlation method analyses the relationship between data, variables and some results which the case study aims at gathering of enough information about a person, an institution, a family, a cultural group or a community. The genetic method investigates the biological phenomena of changes, growth and its development.

Regarding the characteristics of each type of research described above and also the nature of the topic of the present study the investigator came to conclusion that the 'normative survey method' is the most suitable and helpful for study the frustration problem of general nursing students.

4.2.0 Selection of Tools of Measurement

There are three inventories used in this study:

1. Frustration Inventory
2. Intelligence Test
3. Socio-economic scale
4.3.0 **Frustration Inventory**

"It is obviously impossible to divide people into two groups, those who are frustrated and those who are not, for all are frustrated to some extent" as noted by Carroll.2

Frustration is the condition of being thwarted in the satisfaction of a motive. In the other way frustration state is one of the personality characteristics of the individual. Personality may be studied from different angles, one of the most popular approaches to assess the personality characteristics is the projective technique and the second approach is inventory in a verbal form.

(1) **Projective Technique**

The projective method is a means for describing the individual's pattern of personality on the basis of his responses to stimuli (presented as unfinished sentences, imperfect cartoons, meaningful patterns, ink blots, etc.)

In the words of Anderson,\(^3\): "The subject manifests, his personality in them by thrusting it out, where it may be inspected".

Projective techniques are instruments for the measurement of emotional, motivational, interpersonal and attitudinal characteristics.

(a) **Rorschach**

This is probably the most widely utilized of the projective instruments. In the Rorschach ink-blot test, first presented in 1921 by the Swiss Psychiatrist, Hermann Rorschach, the subject is shown a series of symmetrical ink-blots and asked to indicate what he sees in them.

(b) **Thematic Apperception Test**

"In this test the subject is shown ten or twenty pictures (depending on the nature of the individual being tested) each of which presents people in vague situations. Because these pictures suggest traumatic situations, i.e. those which challenges the individual, it is believed that the subject will reveal his "inner action picture" in his

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responses. The characteristics in the pictures are drawn with purposely vague lineaments and clothing. It is assumed that the subject projects his true feelings about himself in describing the pictures. His likes and dislikes, his hostilities or anxieties, are projected in his reactions to the pictures. The subject is led to identify himself with this or that character depicted and thus to reveal his own fantasies, wishes, conflicts, repressed desires etc. 4

(c) Holtzman Inkblot

Modeled after the Rorschach inkblot, the Holtzman Inkblot test (1968) was so designed as to eliminate the principal technical deficiencies of the earlier instrument. The tool provides two parallel series of 45 cards each, only one response per card is obtained.

Administration and scoring of the HIT are well standardised and clearly described. Scores are obtained in 22 response variables, including most of the Rorschach form variables and such additional variables as Pathognomi, Verbalization, anxiety and hostility. Nearly 2000 persons, ranging from 5 year olds to adults were used as sample to derive norms.

(d) **The Picture Frustration Study**

The instrument devised by Rosenzweig,\(^5\) bears as its complete name. The picture Association Study for assessing reaction to frustration. It is devised to reveal patterns of reaction to daily conflicts.

The materials in the test are composed of twenty-four cartoon-like pictures each portraying two individuals involved in a mildly frustrating but not uncommon situation. Facial features and other expressions of personality are purposely deleted from all of the pictures. The subject is requested to analyze the obvious frustration in the situation and to write the first appropriate reply to it which occurs to him. In each picture an individual is shown saying certain words which either describe the frustration experienced by the other individual or which in themselves actually frustrate him.

The situations in the P-F test may be divided into two major types:

(i) ego blocking

(ii) superego blocking

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5. Ibid., pp. 328-329.
Ego blocking situations are those in which some barrier (personal or impersonal) interrupts, disappoints, deprives, or otherwise directly frustrates the subject. Superego blocking situations are those in which the subject is accused or charged by another person with some misdeed. A link between the two types of situations is seen in the fact that occurrence of ego-blocking is implied in super-ego blocking. In his reactions to these situations it is assumed that the subject unconsciously or consciously identifies himself with the frustrated individual and this projects his own prejudices by describing the various plights pictured. To determine the subject's bias, scores are assigned each response as to both direction of aggression and reaction type. Recently, a children's version of the P-F test has been developed which is considered to be as effective as the adult form.

(e) The Trans- Johnston Projection Test

This is designed to examine child-parent relationships or more closely, the dynamics of family constellation from the viewpoint of the child himself. It seeks to bring to the surface for analysis the inner psychological world of the child, as well as the specific means by which he adjusts to his limited environment.

In the rest the child is asked for his reactions to persons, situations, relationships and responses as given in
forty-four free hand drawings. The drawings depict adults and children of both sexes in different situations and relationships involving chiefly important and potentially difficult areas in the socialization of the child. The areas examined are sibling rivalry, child-parent jealousy, discipline, eating, toilet training, sexual development, and cleanliness. There is a separate set of pictures for boys and girls.

The T-J test possesses two unique aspects: (1) the structuring of age, sex, activity, combinations of characters, and objects; and (2) the structuring of areas of adjustment. These two features of the test are regarded as providing it with considerable face validity, as well as enabling the clinician to note the probable dynamics of the child's behaviour.

Preliminary investigation utilizing some 200 children has already shown that the test can be of value in (1) the enrichment of case history study, (2) the preliminary exploration of the dynamics and mechanisms of child personality, (3) the determination of especially areas of behaviour, and (4) as a guide both in the direction and depth of the therapy to be employed.
(f) "A non-verbal technique for the assessment of aggression in children" the investigation was done by G. Patterson (1960).6

Using the frustration - aggression hypotheses as a model a series of cartoons was developed to measure aggressive tendencies and inhibitory mechanisms. A revised scale was administered to 80 boys ranging in age from 6 to 12.

(ii) Verbal Type Inventories

Above mentioned tests and adaptations were based on picture. Projective technique, while the second approach of frustration assessment is purely in verbal form.

(a) Defence Mechanism Inventory

The Defence Mechanism Inventory was developed by Ihilovian and G.C. Gleser (1968)7 for the age group of 16 years and over. The separate forms for male and females were prepared with five scales viz:


(1) Turning against object
(2) Projection
(3) Principalization
(4) Turning against self, and
(5) Reversal

Construction of the DII was based upon the assumption that the major purpose of ego-defense mechanism is resolution of conflicts between the perceptions and the values of an individual. DII is for research use only.

(b) Verbal Frustration Test (VFT) was developed by B.C. Mathew (1966).

This test is meant for assessing the reactions to frustration of adolescents (13 to 17 age groups). It follows the patterns of Rosensweig's F-P study. Originally a picture form of this test was adapted and named ('adras Picture Frustration Study) to measure frustration reaction.

The final VFT test consists of 15 situations based on the incidents of every day life as experienced by high school pupils. These situations are in a dialogue form in which 'A' says something to 'B'. There is only one super-ego blocking situation and the other situations are ego blocking type. The frustrating situations cover five
areas pertaining to parents, friends, teachers, environmental obstacles and obstacles for the society. If (test) can be administered either in a group or individually.

(c) Frustration Questionnaire

Later on K.N. Tripathi has developed the 'Frustration Questionnaire' to assess the frustration of school going pupils. Boys and girls were frustrated and there were no significant sex differences.

(d) Haireshya Haarna (Frustration Test)\(^8\)

This test was constructed and standardized by N.B. Chauhan and A.P. Tiwari in the year 1972. The test studies frustration through the questionnaire method. It also studies effects of frustration upon the quality of a person's behaviour as a whole. The sample consists of 927 adolescents of Uttar Pradesh. The reliability of test was determined to be .88 as a whole.

(1) Aggression
(2) Regression
(3) Fixation, and
(4) Resignation

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Forty frustrating situation items cover above patterns. Each of the forty items has five answers graded on a 5 point scale on the positive dimension and a zero point on the negative dimension. The obtained frustration scores distribute in five categories of frustration, namely the clean, low, average, high and saturated in frustration.

The test can be administered to the pupils of classes IX through XII. In the same way the test items also cover cultural areas (urban and rural), sex (Male and Female) and literacy (literates and illiterates).

The 'Frustration test' can be generally used for frustration measurement of adolescents for clinical purpose and for research purposes.

It is a point to be noted that Indian adaptation of Rosenweig P-E study in Gujarati version are available for children and adults. A.S. Patel has also attempted to develop a 'Frustration Inventory'.

It is noted that it is difficult to study extent and patterns of frustration of the adolescents by using the inventory developed in Gujarati so A.S. Patel developed
a 'Frustration Inventory' in Gujarati in 1970. So the investigator has used this inventory.

4.3.1 Common Characteristics

Characteristics of 'Frustration Inventory' are as follow:

(1) The form of inventory is verbal.
(2) All the items are based on frustration-orientated situations.
(3) Items included in inventory are pertaining to home, society, school and personal environment areas. Home (Family), society, school and personal environment areas have been accounted for day to day life behavioural situations of the adolescent pupils of Ahmedabad city with its sub-urban areas.
(4) The scale is multiple-choice responses inventory.
(5) The inventory is prepared in Gujarati, therefore, it is easy for the students to understand.
(6) There are six patterns of frustration, each pattern having equal weightage and each of the items with four response modes.
(7) Frustration inventory includes aggression, fixation, regression, resignation, rationalization and projection.

(8) The reliability of frustration inventory is 0.61 and the validity is 0.71. In short reliability coefficients range from .57 to .99. Looking to the maximum and the minimum coefficients of the reliability, both are significant. Hence it was assumed that the frustration inventory of C.K. Patel was found to be reliable for the purpose of the present investigation.

The 'Frustration Inventory' constructed by C.K. Patel, has six patterns of frustration, including ninety items, with their alternative responses in the final form. An example for each of the patterns is as follows:

(1) **Pattern - I (Projection)**

Projection is the process of shifting on some one else or on some condition in one's environment. Projection is noted in the adolescents who put blame for their troubles on others. They are constantly opposed to them. They are suspicious of action and fail to recognise their own limitation. Personal faults and short comings especially are projected on others. The common tendency of blaming others for our mistakes is a simple illustration.
"If my friends criticize wearing of new shoes, I tell them, that is due to the tailor's inefficiency".

This situation is an example of frustration - reaction from social environment.

(iii) Pattern - II (Regression)

Regression means a return to an earlier mode of adjustment. Regression results in feeling of lacking self-control, homesick, cries, speech defect, day dreaming etc.

"If I fail in examination, I feel sorry to go out of my house".

The above mention statement belongs to home environmental areas.

(iii) Pattern - III (Aggression)

Aggression is an act whose aim is an injury to an organism. When our efforts toward reaching a desired goal are blocked, first reaction is often one of attacking an attempting to remove our surmount the obstacle. The target of attack is usually some other person or object, and the intensity of the attack varies with the amount of frustration.
"If my elder sister refuses to use her bicycle, I would like to cause trouble in her cycle".

This is the example of the home environment situation.

Frustration results in aggression, the examples of aggression are rude, answering to elders, irritation, feeling of unfairness, carrying grudges, frequent quarrelling, revenge, and several reactionary attitudes.

(iv) Pattern - IV (Fixation)

Fixation is a defence against anxiety in which the process of development is stopped. It weakens ego of the person. Fixation results in fears, worries and several other feelings.

Faced with failure in his repeated efforts, a person may sometimes lapse into repetitive stereotyped behaviour, which does not contribute toward solution of the problem.

"If I do not get admission in the nearest school, I believe that my study progress is too weak".

This is the example of school environment area.
(v) **Pattern - V (Resignation)**

Resignation is a pattern of frustration in which there is extreme elimination of needs, no plans, no definite relation to the future and no hope. The individual has feeling of committing suicide, longing for loneliness, lacking interest in surrounding etc.

Resignation is the extreme of withdrawal from reality. It is an emotionally tinged attitude shown by cessation of active response to solution which individual have previously been making efforts to alter.

"If my parents criticise about my habits, I cannot oppose them".

The above situation gives an example of personal environment area.

(vi) **Pattern - VI (Rationalisation)**

It is a self justification device, which preserves the ego. The most common method used to falsify the goal is rationalization. This represents a sort of "sour-grape mechanism". It serves as a self justification device, and it perhaps designed to preserve the ego.
"If my brother does not allow me, with his party
I believe that it is a chance to play freely".

The situation is an example of frustration reaction
from home environment area.

4.4.0 Intelligence Tests

In studying intelligence psychologists have attempted
to distinguish four major types of intelligence: general,
verbal, non-verbal (mechanical) and social.

"Extensive use is made today of intelligence tests.
These tests range from short simple estimates of ability
that may be administered to large groups and require only
a few minutes to exacting, highly complex, individual tests
of intelligence that require an hour or more to take and
a highly trained psychologist to administer and interpret
the results. Between these extremes are a large number
of tests designed to measure a variety of intellectual
abilities such as verbal ability, perceptual and motor
skills, concept formation and reasoning ability". 9

(a) Wechsler Scales of Intelligence

9. Robert V. Wechsler and Rose M. Jordan. Psychology
The Nurse and the Patient. (St. Louis: C. V. 
The reason for the development of the initial Wechsler scale, called the Wechsler-Bellevue Intelligence Scale was to offset some of the limitations found in the Stanford-Binet Scale.

The Wechsler scales are divided into two major areas: Verbal and Non-verbal (performance) scales. The verbal scale has six subjects, whereas the non-verbal scale has five, which may be described as follows:

Information, Comprehension, Arithmetic, Similarities, Digit span, Vocabulary.

Non-verbal scale includes - Digit Symbol Test, picture completion, block design, picture arrangement, object assembly.

(a) "The first Indian doctorate in test construction was awarded to Desai (1954) for developing a battery of group tests of intelligence in Gujarati for the students of twelve to eighteen years studying in standards VII to XI of secondary schools".10

(c) A revision of this test was attempted by Bhatt and Desai (1961) to standardise it for urban and semi-urban areas of Gujarat State.

(d) The group test constructed by Patel (1966) contained verbal as well as figural items covering reasoning, perceptual, memory, numerical and spatial relations aspects of intelligence.

(e) Abuja (1966) and Abuja (1969) constructed group tests of intelligence in English for Bombay children in age groups of thirteen to seventeen and nine to thirteen years respectively.

(f) Shah (1971) adapted the 1960's revision of the Stanford-Binet Intelligence Scale for Gujarati children of the age group of two plus to eighteen plus.

(g) In the area of non-verbal tests of intelligence, Phatale (1955) made the pioneering study of Good Enough's Draw - a Men Test and developed a new scoring method in her standardisation of the test for Gujarati children.

(h) The only performance scale of intelligence other than that of Bhatia is of Bhatia and Tandon (1964). The battery consisted of two forms; Form A for the age group of three to five years and Form B for the age group of six to thirteen years.
The investigator has used Madhukar Patel's Intelligence Test (MPIT). This test avoids any cultural content; it presents geometric drawings designed to test the students' power of abstract reasoning and space perception. This test presents an equal challenge to all students regardless of their cultural background.

In order to measure IQ of second and fourth year general nursing students, a non-verbal group of test of intelligence was used. This was done with a view to avoiding the reading of language which affects the score on intelligence test. This point is made clear by Donald, "Poor readers tended to make scores on group intelligence tests requiring reading which were significantly lower than the scores made on tests requiring little or no reading". Therefore for the present investigation the non-verbal group test of intelligence constructed and standardized by M.M. Patel for his Ph.D. degree of Sardar Patel University, Vallabhbhai Vidyanagar was selected. This is the only recently standardized test in Gujarati.

4.4.1 General Description

The test is meant for students in the age group of 14-16. It consists of four sub-test: Thus, there are in all 60 items. These sub-tests are (1) Series (2) Synthesis (3) Analogy and (4) Classification.
Again it has a scoring key which greatly facilitates the process of scoring. The total time that is required to administer the test is 45 minutes.

4.4.2 Psychometric Properties

(1) The test has been standardized on a population of 4471 samples, taken from different schools of Gujarat. The population consisted of girls and boys, coming from both rural and urban areas having different socio-economic background. Thus, the sample on which the test is standardized is quite satisfactory.

(2) The reliability of the test has been established by various methods and it ranges between 0.82 and 0.94. Therefore, it can be said that the test is quite reliable.

(3) The types of validity established are concurrent congruent and factorial. Thus, from the validity point of view also it is quite satisfactory. The study of the psychometric properties lead the investigator to conclude that the test is quite valid, reliable and appropriate to be used for the present study.
4.5.0 Socio-economic Scales

4.5.1 General Description

"The construction of scales and other classification systems to measure the relative social rank of occupations has been a vigorous branch of social research for several decades. In 1887, William C. Hunt, working for the Bureau of the Census, grouped all gainful workers into four categories: the proprietor class, the clerical class, skilled workers, and the labouring class. This may be regarded as the first of a long series of socio-economic occupational scales, designed to show the distribution of general status for the entire population in terms of occupational group".11

The work of Hunt and of Carroll E. Wright was carried forward for many years at the Bureau of the Census by Alba Edwards, who is chiefly responsible for the general occupational classification used in the censuses of 1940 and 1950. With a minimum of rearrangement, the categories of the census classification can be divided into six hierarchical groups, described as "social-economic classes".

1. Unskilled workers
   1.a. Farm laborers
   1.b. Laborers, except farm
   1.d. Servant classes.

2. Semi-skilled workers

3. Skilled workers and foremen

4. Clerks and kindred workers.

5. Proprietors, managers, and officials.
   5.a. Farmers (owners and tenants)
   5.b. Wholesale and retail dealers
   5.c. Other proprietors, managers, and officials.

6. Professional persons.

An alternative classification of the census categories was devised by Beckman, who groups them into five occupational grades or ranks. This was, which varies sharply from the previous one, was set up in a somewhat different fashion. According to Beckman, "What seemed to be needed under the circumstances was some grouping which would readily indicate the rank of any profession on the basis of the intelligence, capacity or skill, education and training required for its pursuit. Such a scale should also reflect the socio-economic prestige attached to a given occupation."
Another classification of census categories was developed at about the same time by Hofauer, Hall and Drake. This was described as a socio-economic scale and divided the population into only five groups: unskilled, semi-skilled, skilled, semi-professional and professional.

The most careful and elaborate classification of occupations by socio-economic rank is the Minnesota Occupational Scale, devised by Good-enough and Anderson on the basis of 1920. Census occupations, and since revised by their students. Because of its great importance in educational research this scale warrants some detailed analysis. The occupations included in the original form of the scale are divided into seven groups:

Group I: Professional
Group II: Semi-professional and managerial
Group III: Clerical, skilled trades and retail business.
Group IV: Farmers
Group V: Semi-skilled occupations, minor clerical positions and minor business.
Group VI: Slightly skilled trades and other occupations requiring total training or ability.
Group VII: Day laborers of all classes.
"The public opinion analysts and market research investigators have devised another group of a priori scales to meet their needs, that of centers, is especially comprehensive, but it encounters some of the familiar difficulties:

1. Business Executives
2. Professionals
3. Small Business
4. White Collar Workers
5. Skilled Manual Workers
6. Semi-skilled Manual Workers

This scale probably comes closer to measuring level of living than any preceding one. Not the omission of rural occupations, the preference given to business executives over professionals and to small businessmen over salesmen, and the very high rating of skilled service workers.

The investigator has used D.V. Patel and I.A. Vora's Socio-economic Scale for second and fourth year general nursing students.

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12. Ibid., p. 56.
4.5.2 **Psychometric Properties**

(1) The test is given to a larger group at one time.
(2) It is easy to operate and understand as the test is prepared in Gujarati.
(3) The scale includes family information, their educational background, family income, other sources of income, accommodation, facilities in home and library facilities.

It has a scoring key which greatly facilitates the process of scoring.

4.6.0 **Administration of the Scale**

For the administration of the scale the investigator asked the permission from the Director of Medical Education and Research, Medical and Head of the Institution.

After getting the permission from them the investigator decided to visit the institutions on the date given by them. Administration of the inventory was characterized by some general directions with reference to the inventory. The general direction was given with a view of creating in them a sense of ease and confidence and ensuring a
certain level of motivation. It was made very clear that the inventory was exclusively meant for research and there was no other purpose like exposing the subjects to others.

It was decided to keep the following points in mind at the time of the administration of the inventory.

(1) Testing is conducted in a regular classroom.
(2) Only two or three testees are seated on each bench to facilitate the work.
(3) Before the actual work starts the investigator checks whether each of the testees has a pen or pencil.
(4) The atmosphere in the vicinity of the class room be free from the disturbances.

Before the administration of three scales, the students were motivated to take the test by explaining to them the purpose of the inventory. There was no problem in motivating the subjects of general nursing students as it was made very clear that the inventory was given to measure neither knowledge nor ability.

Considering all the factors and available data for the selection of the sample, the frustration inventory was
administered to second and fourth year of general nursing students from fourteen general nursing schools of Gujarat State. The help was taken from senior teachers who were conversant with the techniques of the testing. Suitable instructions were prepared to explain the subject what he/she was supposed to do with the inventory. An appeal was prepared to elicit honest and frank responses. Two statements were provided for practical work.

The second and fourth year general nursing students have been asked to read each statement of the frustration inventory. They were asked to cross mark their responses, as a result of immediate effect in their mind to given situations. The four alternative responses are presented as under:

<table>
<thead>
<tr>
<th>Always</th>
<th>Mostly true</th>
<th>Rarely true</th>
<th>Never true</th>
</tr>
</thead>
</table>

B.V. Patel and I.A. Vora SES scale (Urban and Rural) has been utilized to study socio-economic status and Madhokar Patel's test has been utilized to study IQ of second and fourth year general nursing students of Gujarat State.

The researcher was expected to take care of the following aspects:
(i) **Time limit**

(ii) **Instructions to the testees**

(iii) **Scoring the inventory**

The above mentioned aspects were properly considered as under:

(i) **Time Limit**

Before the administration of the frustration inventory, it was essential for the investigator to estimate the time limit. All the items and words were so familiar to students that it was easier for them to give their filling only by specific mark (a) on the response. Practice items were explained on the blackboard. It was observed that some of the students had marked the same number of responses for all the items. Some of the answer sheets were found incomplete, which were dropped from probing.

On the whole second and fourth year general nursing students were found enthusiastic and inquisitive to the extent that they asked for the results. This was an interesting work for the investigator also.

The investigator had practically no difficulty in getting cooperation from Matrons, Principal tutors, Nursing
tutors, second and fourth year general nursing students of Gujarat State. The Matrons, Principal tutors and all other tutors from nursing school co-operated well and took keen interest and appreciated the purpose of the inventory.

Investigator has marked and observed the duration of minimum and maximum testing time as shown in Table 4.1.

<table>
<thead>
<tr>
<th>No.</th>
<th>Tests</th>
<th>Time to be allowed</th>
<th>Minimum</th>
<th>Maximum</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Frustration Inventory</td>
<td>20 minutes</td>
<td>40 minutes</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>S3S</td>
<td>10 minutes</td>
<td>20 minutes</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>I.Q. test</td>
<td>45 minutes</td>
<td>45 minutes</td>
<td></td>
</tr>
</tbody>
</table>

Time limit of the frustration inventory was 30 minutes. It was not strictly followed as this was an inventory and thinking that the excess time allowed would not give them any chance of better rank as additional time to complete all the 90 items was given to students. It was observed by the investigator that most of the students could complete all responses within 30 minutes. The time for instructions and fill up the personal bio data was not
included for the time limit. Entire work was completed in the class within two hours and twenty five minutes.

Sample

The inventory was administered to second and fourth year students of general nursing of Gujarat State in batches of 35-40. So the total number of students when the inventory was administered was 760 but after eliminating the incomplete cases actual sample taken into consideration for this study is shown in Table 4.2.
<table>
<thead>
<tr>
<th>Sr. No.</th>
<th>Name of the School</th>
<th>Second Year Boys</th>
<th>Second Year Girls</th>
<th>Total Boys</th>
<th>Total Girls</th>
<th>Fourth Year Boys</th>
<th>Fourth Year Girls</th>
<th>Total Boys</th>
<th>Total Girls</th>
<th>Total Grand Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Methodist Nursing School, Nadiad</td>
<td>1</td>
<td>3</td>
<td>4</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>8</td>
</tr>
<tr>
<td>2</td>
<td>S.S.G. Baroda</td>
<td>2</td>
<td>75</td>
<td>77</td>
<td>-</td>
<td>23</td>
<td>23</td>
<td>-</td>
<td>-</td>
<td>46</td>
</tr>
<tr>
<td>3</td>
<td>New Civil Hospital, Surat</td>
<td>2</td>
<td>26</td>
<td>30</td>
<td>-</td>
<td>12</td>
<td>12</td>
<td>-</td>
<td>-</td>
<td>24</td>
</tr>
<tr>
<td>4</td>
<td>Government Hospital, Rajkot</td>
<td>8</td>
<td>15</td>
<td>23</td>
<td>5</td>
<td>6</td>
<td>11</td>
<td>-</td>
<td>-</td>
<td>34</td>
</tr>
<tr>
<td>5</td>
<td>Jodhpur Irwin Hospital</td>
<td>9</td>
<td>32</td>
<td>41</td>
<td>-</td>
<td>27</td>
<td>27</td>
<td>-</td>
<td>-</td>
<td>54</td>
</tr>
<tr>
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<td>C.W.Z Hospital, Junagadh</td>
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The sample shown in table 4.2 was drawn from fourteen general nursing schools of Gujarat State. In selecting the sample, the following principles were kept in view:

1. All general nursing schools, Government, Municipal or Mission nursing schools were selected.
2. The students who spoke Gujarati were selected.

The schools of varied types were duly included to give due representation.

4.4.1 Observations during the Administration of Inventories

The following observations were made by the investigator during the administration of the inventory:

1. Instructions were properly followed by the nursing students.
2. Nursing students had no difficulty in understanding the situational statements.
3. Nursing students showed interest in taking the inventories.
4. Testing procedure was found smooth and quick.
When the work of the administration is over, the scoring work would naturally follow. It is a laborious and time consuming task. Therefore, certain procedures are to be adopted if the scoring is to be made with maximum accuracy and efficiency.

In this study, scoring was to be made according to the pre-determined instructions, so that there were less chances of scoring errors. The following points were kept in view while scoring the test.

1. If the student has marked two or more answers (x) to any one item, the answer was not considered even when it was correct. No credit was given to this type of answers.

2. The student had changed his answer according to the instruction given on cover page of the test booklet was considered, and when it was correct, credit was given to it.

In order to make the scoring speedy and accurate certain technique was to be adopted. The techniques that are generally used for scoring the test are (i) strip keys (ii) window stencils (iii) carbon or pin prick end (iv)
Machine scoring-stencil. The scoring of the scale is done according to the pre-determined instructions and scoring key. This was just done for making the scoring free from error while scoring the frustration scale.

Out of 780 inventories, 669 inventories duly completed were scored, pattern-wise and then added. Each of the 90 items has four alternative responses, graded on 3 point scale on the positive dimension and a zero point on the negative dimension. The first response in column 'A' is multiplied by 3, second response is 'B' multiplied by 2, third response is 'C' multiplied by 1, and similarly last response is multiplied by zero (0). Obtained total scores, by adding four columns, scores, were arranged in descending order. Items were scored and noted on the title page of the inventory booklet.

Thus the frustration inventory was administered on general nursing students. The incomplete or partially answered inventories were rejected, while remaining 669 inventories were scored with the all possible care. Thus the obtained raw scores were ready for further computations.