CHAPTER III

METHODOLOGY

I INTRODUCTION

II OPERATIONAL DEFINITIONS

III NATURE OF THE INSTRUMENTS USED IN THE INVESTIGATION

(1) The TMAS Nature and Purpose
(2i) The Job Incomplete Sentence Blank

a) Selection of Items
b) Response Analysis
c) Scoring Method

IV SELECTION OF THE SAMPLE

V CLASSIFICATION OF THE SAMPLE

a) Education wise distribution of the sample
b) Job wise distribution of the Ss
c) Distribution of the sample into High and Low Anxiety Groups

VI PROCEDURE OF DATA COLLECTION

VII STATISTICAL ANALYSIS
CHAPTER III

METHODOLOGY

I INTRODUCTION

In this chapter a detailed account is given of the methodology of present investigation. A complete description about the preparation of the Job Incomplete Sentence Blank (JISB), and the description about the operational definitions. Description about the TMAS and its nature and purpose, detailed description of sample selection, a full account of the procedure of data collection and the necessary statistical tools used for this purpose are also included. These details have been specifically given to make the replication possible.

II OPERATIONAL DEFINITIONS

(i) Conflict Areas:

Conflict areas in the present investigation have been operationally defined as the problematic areas revealed by the Ss showing conflicts on the JISB (problems as revealed in the job-JISB).

(ii) Personality Types:

Personality Types will be the High and Low Anxiety Groups divided on the basis of the TMAS scores.
(iii) Social Situations:

Specific job situations i.e. clerical work (Govt. clerks), Banking (Bank clerks), Teaching line (College Teachers), and the Technical line (Govt. Technicians) selected in the present investigation.

III NATURE OF THE INSTRUMENTS USED IN THE INVESTIGATION

(1) The TMAS Nature and purpose

(a) Nature:

This test was derived by J.A. Taylor (1953) from 200 items of the MMPI. Sixty five of these, judged by five clinical psychologists as significant of manifest or overt anxiety, were imbedded among 135 buffer statements and submitted to 352 students. After several changes, 50 items emerged as most discriminative or an anxiety state. Taylor called this the Biographical inventory, but popular usage has given this test, the titles, Taylor Anxiety Scale and the manifest Anxiety Scale.

This test utilizes the approaches of systematic Psychiatry and empirical observation. It originated in a need for selecting anxiety prove subjects for psychology laboratory experiments but was taken out of the restricted experimental laboratory by clinical psychologists seeking a short and useful screening tool for detecting anxiety.
The Anxiety Scale is a self-administering test for use with college and adult groups. The score is obtained by adding up the number of significant key items marked true or false. The scores may range from 0 to 50, the higher score indicates greater anxiety proneness. In the present investigation Gujarati adaptation of this anxiety scale has been used (Shah).

(b) Purpose:

In the present investigation Gujarati adaptation of the TMAS has been specifically selected because

1) It is prepared for Gujarati population
2) It is very easy to administer and economical in time and money
3) It does distinguish the high and low anxiety groups.

In the present study this personality adjustment inventory has been used for two reasons. On the one hand, the anxiety level of different occupational groups is to be compared inter group wise. On the other hand, all the occupational groups are to be classified in to high and low anxiety groups, to test their scores on the JOB ISB. This is a validating procedure for the new instrument. As a result the TMAS has been specially selected in this investigation.
The Job Incomplete Sentence Blank

In the present study the Incomplete Sentence-Blank of the verbal projective technique has been specially developed for the investigation of the Job-attitudes of the workers of employees towards various job situations.

The general advantages of the sentence completion method as stated by Rotter and Rafferty (1959) can be summarized as follows:

(1) There is freedom of response, that is, the subject is not forced to answer "yes", "no", or the examiner's question. He may respond, instead, in any way he desires.

(2) Some disguise in the purpose of the test is present. Although the subject may be aware of the general intent, what constitutes a "good" or "bad" answer is not readily apparent to most subjects.

(3) Group administration is relatively effective. Most of the incomplete sentences tests can be given to a group of any size without apparent loss of validity.

(4) No special training is ordinarily necessary for administration. Interpretation depends on the examiner's general clinical experience, although the examiner does not need specific training in the use of this method.
(5) The sentence completion - method lends itself easily to objective scoring for screening or experimental purposes. Although objective scoring has not been attempted in many tests of this type described in the literature, the incomplete sentence blank demonstrates the case with which relatively objective scoring may be done.

(6) The time of the administration tends to be shorter than for most tests and the time of scoring or analysis tends to be shorter than for most projective techniques.

(7) The method is extremely flexible in that new sentence beginnings can be constructed or "tailor made" for variety of clinical, applied and experimental purposes.

Some additional advantages of ISC and its utility have been described by various authors as follows:

(8) According to Perrington and Berg (1954), "Administration is similarly flexible and the sentences can be administered either verbally, or in writing, individually or in group.

(9) Vernon (1964) "It is a fruitful source of material for clinical exploration in counselling interviews.

(10) Goodstein and Lanyan (1971), have stated that Sentence Completion is a valuable instrument in the assessment of
personality that compares favourably to other standard instrument. A considerable & generally favourable research literature tends to justify its wide clinical and research use.

(11) Goodstein and Lanyon (1971), have shown importance by quoting Sundberg (1961)'s findings. According to him all the psychological tests and instruments used in clinical series, the sentence completion ranked 13th in frequency of use and among the group personality instruments, the sentence completion was second only to the MMPI.

They have also quoted Goldberg (1965). According to him "the more structured approaches to content analysis such as Rotter's scoring procedures have been demonstrated to be useful; he also says that employing first person seems to provide somewhat more useful responses than third person. Stems, although the evidence is not unequivocal".

Inspite of all these advantages, Rotter and Rafferty (1950) have pointed out some major disadvantages of the ISB as compared to other personality measures.

(1) Although susceptible to semi-objective scoring, it cannot be machine scored and requires general skill and knowledge of personality analysis for clinical appraisal.
and interpretation. In the present study therefore the investigator is having special background of clinical psychology and also knows how to do content analyses of the verbal responses of the subjects obtained by the instrument.

(2) There is not as much disguise of purpose as in other projective methods. Consequently, a sophisticated subject may be able to keep the examiner from knowing what he does not wish to reveal. In the present study, therefore, only those subjects have been selected who volunteered to be the subjects for the investigator and the investigator has also tried to create confidence among the Ss by establishing rapport with them.

(3) Insufficient material is obtained in some cases, particularly from illiterate, or mentally disturbed subjects. Application of this method as a group test also requires writing and language skills and has not yet been adequately evaluated for potential clinical usefulness for younger children. Here in this study, therefore, illiterate and mentally disturbed subjects were not included in the sample.

a) Selection of Items:

In the present study a special ISB has been prepared to study the job adjustment of the individuals working in various kinds of jobs. This is the job adjustment ISB
prepared for the first time in Gujarati. As a result the present investigator has taken following care to prepare it before the actual administration.

1. The investigator has gone through different types of verbal ISB prepared by other psychologists to study other aspects of personality. Their basic principles and the methodology of their preparation has been fully understood.

2. As the present ISB is associated with the job situation the investigator has tried to analyze the entire job situation into various areas as they are perceived by the employees. For this purpose, different employees working on various types of jobs have been personally interviewed and they are asked to analyze their own job situation into as many areas as possible.

3. Senior workers and job experts have been consulted to find out, how they evaluate an employee at the time of selection as well as promotion. Employees' work experiences, his quality of work, his regularity, sincerity, behaviour towards other workers, behaviour towards superiors, his satisfaction with the financial rewards and his own evaluation of the social status of his own job are some of the areas which have come out of this description.

4. Finally before, the final JISB was prepared, the areas and the item related to them were also shown to clinical
psychologists working in special clinical institutes. Their suggestions were incorporated into the final form. This was necessary because ultimately this instrument is going to be used for clinical purposes.

b) Response Analysis:

The responses given by the Ss have been classified and scored according to the scoring method shown by Rotter and Rafferty (1959). According to them the ISB can be simultaneously studied qualitatively as well as quantitatively. As a result, it becomes useful for quantitative scoring as well as qualitative interpretation. The total responses are classified as follows:

i. Omission responses:

Omission responses are designated as those for which no answer is given or for which there is no thought incorporated. Omission and fragments are not scored. These unevaluated items are treated by the formula  \[ \frac{33}{33 - N. \text{ of Oms.}} \] . The result is to be added in the final total score. However, if there are more than twenty omissions, the paper is considered unscoreable for all practical purposes.

ii. Conflict responses:

'C' or conflict responses are those indications on unhealthy or maladjusted frame of mind. These
responses include hostility reactions, pessimism; symptom elicitation hopelessness and suicidal wishes; statements of unhappy experiences and indications of past maladjustment. Responses range from $C_1$ to $C_3$ according the severity of conflict or maladjustment expressed. The numerical weightage for the conflict responses are $C_1 = 4$, $C_2 = 5$, and $C_3 = 6$.

iii. **Positive responses:**

"P" or positive responses are those indicating a healthy or hopeful frame of mind. These are evidenced by flippant remarks, optimistic responses and acceptance reactions. Responses range from $P_1$ to $P_3$ depending on the degree of good adjustment expressed in the statement. The numerical weightage for the positive responses is

\[ P_1 = 2, \quad P_2 = 1, \quad \text{and} \quad P_3 = 0. \]

iv. **Neutral responses:**

"N" or neutral responses are those not following clearly into either of the above categories. They are generally on simple description level. Responses such as "Most girls are females", fall into this category. All the "N" responses are scored "3".

In the manual given by Rotter and Rafferty (1952), the detailed scoring method has been given with concrete
illustrations. This instrument being a verbal projective technique, these illustrations are studied closely to understand their spirit and the responses of the present Job ISB have been scored accordingly.

c) **Scoring Method:**

The weightage given by Rotter and Rafferty (1952), to various categories is as follows:

\[
\begin{align*}
C_3 &= 6 \\
C_2 &= 5 \\
C_1 &= 4 \\
N &= 3 \\
P_1 &= 2 \\
P_2 &= 1 \\
P_3 &= 0
\end{align*}
\]

In the preparation of the JOB ISB it was necessary to identify the specific areas of the job that will be helpful in its social evaluation. Areas as specified by Maier (1966), Davis (1949), Gardner, Moore (1964) are as follows.

1. Financial aspect of the job.
2. Proper guidance and supervision.
3. Future prospects.
4. Job conditions (working conditions)
5. Social position of the job.

1. **Financial aspect of the job:**

Financial aspect of the job implies all the materials benefits an employee gets in return for his services.
The financial return of any job is determined by the nature of work and responsibility, special training required, amount of risk and the hours of work. Mostly the financial returns are positively correlated with the above mentioned variables.

Every job is mainly evaluated in terms of its financial returns. It also implies that the higher the return the greater the responsibility and consequently the higher the status of the employee. In every industry the senior supervisor gets higher pay than the juniors supervisor, therefore when the question of the job adjustment arises, financial return is one of the important areas to be considered in this connection. This has been supported by Davis (1949), Gardner and Moore (1964). Accordingly, in the present job ISB certain items related to the financial aspect are included.

2. Proper guidance and supervision:

On any job, whenever the employee is first appointed, he is novice for the work. He does not know the daily routine of the work, he does not know where to approach when in difficulty and he also requires same time to get properly adjusted to his work. All this becomes possible under proper guidance and supervision.
If the job situation is able to meet all these requirements, the person feels happy with his job and considers himself to have a good job. Unfortunately this kind of situation is not available everywhere and for everybody. In some of the job situations the seniors are highly critical, coworkers are either competing or creating rivalry and the total job-situation is full of suspicion, hatred and mistrust. Under these conditions whatever may be the pay, the employee does not like to continue. There are actual recorded cases where sensitive new employees develop either psychosomatic symptoms or neurotic symptoms if they continue for a longer time in this situation. The present Job ISB also has covered up this area for investigation.

3. Future prospect:

Jobs are also evaluated in terms of the future prospects for the employees. People usually select jobs where there are chances of promotion.

If the employees who are working in various jobs, do not have chances of promotion and additional return in future, they will be frustrated and dissatisfied and sometimes they may leave the job.

Once an employee has been selected and appointed on a particular job, he masters the situation within two or
three years. He may continue on the same job for some more time but then the work becomes routine and boring. Usually people want some challenging situation. The opportunity provided by the industry or office to face the challenge is known as promotion. It is also associated with financial rise.

This is the normal requirement for all employees, however every management is not in the position to meet their requirements. In some job situations the senior positions are very limited compared to the junior ones. In other cases promotion is to be granted only on seniority basis which an employee cannot fulfill without a seniority certain number of years in a job. At other time it is also possible that the an employee is overambitious for promotion. All these situations creat problems for promotion. In the present job ISB therefore, this area is also included for exploration as an important area of job adjustment.

4. Working conditions:

Employee's job satisfaction also depends upon the favourable working conditions where he is working. Some times employees or workers are experiencing constant metal tension and conflicts because they are not provided good, adequate and necessary working conditions or facilities for the work.
Tiffin and Mecormick (1966) have very well stated that "human behaviour can be influenced by situational variables, including those to which we commonly refer as working conditions. There are really three groups of working conditions: those of a physical nature (illumination, noise, atmospheric conditions etc.) those relating to time (hours of work, rest pauses, etc.) and those reality to the social situation within which the individual works". So when the question of job adjustment arises working conditions constitute also one of the important areas to be considered in the present job ISB. This area also has been covered up for the investigation.

5. **Social position of the job**

Davis (1949), Gardner, Moore (1964) and other industrial psychologists have shown the objective social status of different jobs in the American Society. The same pattern is more or less applicable today to Indian society. Here also the same job status value has been applied to different jobs.

However one should note the difference between the objective job status existing in society and the subjective satisfaction of the individual who is occupying any particular job position. For example, the position of the College professor is superior to the position of a school teacher.
but it is quite possible that college professor is not satisfied with his job because he wants to join the University. The job ISB is an attempt to study the subjective evaluation of the job by the person who is holding that position. It is possible that if the person is quite satisfied with his own position he will able to give better performance than the person who is not at all satisfied with his position.

As it has been very well stated by Crow and Crow (1956), "Job adjustment depends upon job conditions, workers' attitudes and degree of efficiency. A worker's chances to perform adequately the job and to experience personal satisfaction in the work is influenced by vocational selection based upon personal interest in the work, and ability to meet its demands, appropriate and adequate preparation; available job opportunities, healthy-working conditions; intelligent and understanding supervision; pleasant and satisfactory co-worker relations and adequate financial returns.

Poor adjustment in any one of these areas may bring to the worker inefficiency, discontent, resentment, feelings of frustration or seriously maladjusted behaviour". 
IV SELECTION OF THE SAMPLE

After the preparation of the instrument the next problem was to select proper sample for the investigation. The problem of sample selection is very important in all kinds of research because proper sampling determines the degree of the generalisation of the results. Sample is equally important to interpret the results in their proper psychological context. Sample has also been regarded as important because it also determines the applicability of the findings.

One important factor the research worker has to tackle, is the size of the sample. Usually the sample is expected to be the representative of the population. However the size of the representation can be large or small depending upon three things.

1. The time available for data collection.
2. The type of the instruments used for the investigation of the problem.
3. The mode of the data collection, i.e. interview technique, questionnaire technique, observation technique, case study technique used for data collection.

It is not necessary to discuss these three points at length because all investigators have experienced these problems sometime in their research work. The time factor demands the data collection to be over within the prescribed
time limit. If the time is very short and the research worker is not financially supported by any other agency then naturally one cannot expect the study to cover very large sample even though it is desirable.

Another important factor influencing the size of the sample is the kind of instrument used for the data collection. Certain instruments can be used effectively even when used in a group while other instruments are effective only when used individually. The verbal projective technique, which is used in this investigation belongs to the second category. There are several reasons for that...

1) It is a clinical instrument which studies the deeper aspect of personality of the subject. This naturally takes longer time per subject than the questionnaire method. As a result the size of the sample is directly affected. In the present investigation also this is the reason for the limited size of the sample.

ii) After administration of the instrument the interpretation is also not very easy and it takes longer time. Even though objectively the positive and conflict categories of the responses are determined still it requires deep interpretation and support of the subject to validate the classification of the responses. This implies that the subject is to be interviewed, by searching questions before finalizing
the categories of the responses. This also takes longer time than any other method.

iii) This kind of instrument is not very common for the subjects to respond. Many subjects find it difficult to understand exactly what they have to do. Direct suggestions cannot be given. At the same time, for the subject to settle down for the work. This again influence the time limit.

The mode of data collection is also an important factor in influencing the size of the sample. The interview method by its very nature is self limiting. It cannot cover very large group. The proper rapport is to be established and it is to be maintained through out the period of data collection. The subject may be conscious, may not like to reveal exactly what he thinks. In the interview technique all these difficulties are to be taken into account. In doing so naturally the time factor is likely to be affected. In other words the interview technique for data collection is always intended for deeper studies of the subjects in a limited number. To day most of the clinical investigators have accepted. This view print and data based in interview technique is getting good welcome.

In the present study the sample has been selected by the method of "Purposive sampling". The size of the sample is
small that is '142' male Ss only, but the investigator has tried to do justice to the instrument used and the information obtained thereby.

Two important requirements were observed in the selection of the sample for this investigation.

i) Those individuals had been selected who volunteered to be the subjects.

ii) Those individuals had been included in the sample who had adequate experience in their various social situations (Job situations).

By adequate experience is meant, sufficient no of years spend on the job to understand its positive as well as negative points. The Ss who are freshly appointed, do not understand the difficulties, while those who are on the job for a pretty long time seem to have got quite adjusted with the difficulties. Keeping this point in view the author has selected the experience level not less than four years and not more than fifteen years for the present investigation.

Criteria for the sample:

In the present study, the following job situations were selected, Govt. and private.

Jobs demanding high responsibility and jobs which are relatively easy. Accordingly, the following job situations
were selected.

(i) Govt. clerks (Govt. Easy).

(ii) Bank Employees (Private. High responsibility) (Clerks)

(iii) College Teachers (Private. Lesser responsibility)

(iv) Govt. Technicians (Govt. and High responsibility)

V CLASSIFICATION OF THE SAMPLE

a) Level of education:

On the basis of education the sample has been selected from the S.S.C. level to graduation level. The actual distribution is shown in the table No. 3:1.

<table>
<thead>
<tr>
<th>Level of Education</th>
<th>S.S.C.</th>
<th>Graduation</th>
<th>Post graduation</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>M</td>
<td>53</td>
<td>55</td>
<td>34</td>
<td>142</td>
</tr>
</tbody>
</table>

b) Level of specialized job situation:

In the present investigation an attempt has been made to study the job problems of employees working in the various job situations varying from very general jobs to
semi specialized and specialized jobs and accordingly following job situations have been selected. The actual distribution is shown in the table No. 3:2.

**TABLE 3:2**

Job wise distribution of the Ss:

<table>
<thead>
<tr>
<th>Level of job situations</th>
<th>Govt. clerks</th>
<th>Bank Employees (Clerks)</th>
<th>College Teachers</th>
<th>Govt. Technicians</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>N</td>
<td>53</td>
<td>22</td>
<td>30</td>
<td>37</td>
<td>142</td>
</tr>
</tbody>
</table>

The entire sample was administered the Gujarati adaptation of the TMAS. The median test was given to classify them into high and low anxiety groups. This constituted personality types mentioned in the first chapter as well as in the operational definition. The results are given in the table No. 3:3.
TABLE 3:3

Distribution of the sample into High and Low Anxiety Groups:

<table>
<thead>
<tr>
<th>Groups</th>
<th>Various job situations</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Govt. clerks</td>
</tr>
<tr>
<td>No. Personality types</td>
<td></td>
</tr>
<tr>
<td>1 High Anxiety group</td>
<td>32</td>
</tr>
<tr>
<td>2 Low Anxiety group</td>
<td>21</td>
</tr>
<tr>
<td>TOTAL</td>
<td>53</td>
</tr>
</tbody>
</table>

* Actual median test is shown in the appendix

V PROCEDURE OF DATA COLLECTION

To study the present problem, two tests were selected. One is Tylor Manifest Anxiety Scale (1953), TMAS, to know the anxiety level of subjects and second is Job Incomplete Sentence Blank, that is (JISB), a semi projective technique specially prepared to study the conflict areas for employees in various job situations as discussed earlier.

Before the administration of these two tests individually, the following instructions prepared and orally read to each subject in Gujarati.
Instructions:

1. "I want your co-operation in giving honest and true responses to the questionnaires which I present to you. In the first questionnaire there are certain items given and against each item there are two possible responses, that is "True" and "false". After reading the statement you have to underline either true or false whichever is applicable to you. This is not your I.Q. or Ability test. I just want to study some of the personality traits of people working in the job situation like yours. Therefore, answer honestly and sincerely. Try to complete it as quickly as possible. I expect your honest co-operation. If there is any difficulty, you can ask me immediately".

2. "Here before you a list of certain incomplete sentences. Each sentence is to be completed as you like. Try to complete it with the first idea you get. Do not write more than one sentence for any incomplete sentence. There is no time limit for this test, but try to complete it as quickly as possible. This is an attempt to understand some of your personality aspects, therefore, give honest and sincere co-operation. If you do not understand please ask. I expect your honest cooperation".

After having taken the permission for data collection
from heads of various Govt. departments, Principles of various colleges and managers of various banks, investigator has administered Taylor manifest anxiety scale (TMAS) in the first session to the subjects individually. There was no time limit but the subjects were requested to complete it as quickly as possible.

After first session was over some rest was given to the subject. In the second session instructions of the job JISB was read very carefully and subjects were told exactly what they were expected to do and then job JISB was administered individually. This was necessary because in the JISB the interpretation of the response requires correct meaning as given by the subject. Therefore, wherever there is some confusion about the interpretation of the response it is necessary to ask the subject himself what he means by the response. This kind of work was not familiar for many subjects, So it required close supervision to make them complete the statements in the correct manner.

Completion of both the tests took about 30 minutes per subject, so overall average of per subject about one and a half hour was required in data collection. This way all subjects were individually approached and administered both the tests. In all work of data collection took at about ten months.
VII STATISTICAL ANALYSIS

Mean and S. Ds were calculated for each group for their scores on the TMAS and JISB then 't' test was applied to compare the groups in the following way.

a. The TMAS:
1. Govt. clerks v/s. Bank employees.
2. Govt. clerks v/s. College Teachers.
3. Govt. clerks v/s. Govt. technicians.
5. Bank employees v/s. Govt. technicians.

b. The JISB:
1. Govt. clerks v/s. Bank employees.
2. Govt. clerks v/s. College teachers.
3. Govt. clerks v/s. Govt. technicians.
5. Bank employees v/s. Govt. technicians.

The purpose of the present study is to find out to what extent these two groups show significant differences in the JISB when they are already tested on TMAS. The TMAS has been given to study their manifest anxiety and on the
basis of these groups they have been compared with job ISB. Actually this is the validating process, therefore, the purpose of the present study is to find out whether the job ISB supports the results given by the TAMS.