CHAPTER - III
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I. INTRODUCTION :

This chapter mainly gives a detailed account about the plan and procedure carried out for the study. Since there was no readymade instrument available for the measurement of self-perception of the college youth, a special Self-perception Inventory (SPI) for the college going students was constructed. The full information about the procedure involved in the construction of the inventory and establishing its validity and also its reliability has been given in detail. After that the selection of the sample and the procedure of data collection is also explained. Finally the scoring, tabulation and statistical analysis of the data by different methods have been discussed.

II. OPERATIONAL DEFINITIONS :

The major theoretical concepts discussed in the first chapter have been given the following operational definitions:

(i) Self-perception will be considered in terms of the actual score that the S obtains on the Self-Perception Inventory (SPI) specially constructed for the study.

(ii) The Adjustment level of the S will be considered in terms of his score obtained on the Incomplete Sentence Blank (ISB) constructed by DR. BHATT (1972).

(iii) The College Achievement level will be considered in the terms of the percentage of marks obtained by the Ss in the previous university examination.

(iv) The Cosmopolitan City comprises of various segments of society from different parts of the world, where the cultural environment
is free from any national prejudices or limitations.

(v) The Metropolitan City comprises of a limited segment of society where the cultural environment is narrow due to the influence of religion, caste and national prejudices or limitations.

III. TESTS USED FOR DATA COLLECTION:

A. Self-Perception Inventory - The SPI for the college students has been newly developed for this study. The total procedure of construction has been discussed below.

B. Incomplete Sentence Blank - This is already developed Instrument, BHATT (1972). A detailed explanation and description of the test is given below.

A. CONSTRUCTION OF THE SELF-PERCEPTION INVENTORY (SPI): (College students)

(i) PURPOSE OF THE CONSTRUCTION:

The SPI was constructed due to the following reasons:

(a) To measure the self-perception of the college going students as there is no standardized Gujarati and English test to measure the self-perception of Gujarati college going population.

(b) To find out the differences in the self-perception of Gujarati and Non-Gujarati College going population which has not been done before.

(c) To find out the degree of agreement between self-perception and academic variable mentioned in the first chapter in the college going students.

(d) To find out how far the SPI and the adjustment results are correlated.
For the study of self-perception, the inventory was given priority to the other forms of instruments because of the following reasons:

(1) It could be administered easily to a large sample at a time.
(2) The sample selected being college going students, were in a position to understand the contents of the inventory easily.
(3) Scoring was comparatively easier and less time consuming.

(ii) SELECTION OF ITEMS:

(1.) The selection of items for the new SPI Inventory was done on the basis of similar studies conducted by JERSILD (1952) and by LIVESLEY and BROMBLEY (1973) on children and adolescents respectively. JERSILD had classified the total self-perception into fourteen major areas. For each area he has given a detailed description about its nature. His areas of self-perception are as follows:

(1) Physical Characteristics.
(2) Clothing, Grooming and Make-up.
(3) Health and Physical condition.
(4) Material possessions and ownership.
(5) Animals, Pets and attitude towards them.
(6) Sports, Games, Hobbies - participation and ability as,
(7) Home and Family relationships.
(8) College, Work - Ability as and attitude towards it.
(9) Intelligence.
(10) Special talents and abilities or interest.
(11) Personality traits, including temperament disposition, character traits, emotional tendencies.
(12) Social attitudes and relationships.
(13) Religious ideas, interests, beliefs and practices.

Over and above these, LIVESLEY and BROMBLEY (1973) have given certain areas of self-perception which gain importance with the increase in age for an individual. They are stated below:

(1) General Personality Attributes.
(2) Specific behavioural consistencies.
(3) Orientation.
(4) Interests and hobbies.
(5) Beliefs, attitudes and values.
(6) Attitude towards self.
(7) Relations with opposite sex.
(8) Comparisons with others.
(9) Collateral facts and ideas.

A list of important areas of self-perception were noted down from the two studies mentioned above and were selected as the basic guideline for the present study.

(2) These areas of self-perception as stated by JERSILD (1952) and LIVESLEY and BROMBLEY (1973) were then studied in relation to the Indian context. A group of 15 college going students, ranging in age from 17 to 21 years were asked to write an essay on
'Myself' of about 300 words, in which they were requested to describe themselves as completely as possible. As a guideline, they were given the names of the major areas of self-perception as mentioned earlier in this chapter. Their essays were then content analysed and the significant areas, over and above the description given by JERSILD (1952) and LIVESLEY and BROMBLEY (1973) were also selected for the final list, while those areas that were not fully described by the Ss were omitted. Similarly, certain items appearing more or less uniformly in the essays of the Ss were also selected for the Self-Perception Inventory.

(3) Experts in the field of Psychology were consulted regarding the selection of items and were asked to show definite areas of Self-Perception in Indian culture.

(4) Past research was reviewed as mentioned earlier in Chapter II. The common major areas of self-perception were reconfirmed.

(5) JERSILD (1952) and LIVESLY and BROMBLEY (1973) had based their major researches on the unstructured essay. The method of self-perception by essay writing for final data collection was not desirable for the present sample because of the following reasons:

(a) The Gujarati students and the Non-Gujarati students are so far not trained properly to think about themselves and answer accordingly.

(b) The question of priorities and omissions is equally large. Some students simply tend to forget certain aspects of their personality to mention in their essays while some other aspects are so highlighted as if to cover the entire personality.
(c) Students sometimes simply exaggerate their attributes and there is a tendency to write good things about themselves. But this description does not necessarily turn out to be correct. Therefore the overall picture of self-perception of the Ss remains either incomplete or highly biased.

(d) In self-description, the classification of responses becomes difficult as the projective quality of the obtained responses means that the scoring procedure rests for the most part on the subjective judgement of the scorer himself, despite the application of pre-selected categories. The onus is on the scorer to decide in which category the response is fitting and not on the part of the subject which entails a lot of subjectivity on the part of the scorer.

In order to overcome the above mentioned limitations, the questionnaire method was adopted. On the basis of the material obtained from the students, a preliminary questionnaire consisting of 180 items was prepared inclusive of all items that would be significant for the college going population. The questionnaire was framed with a 'Yes' and 'No' response form and was administered to 25 students from college. They were asked to suggest whether there was anything else worth including or anything that was irrelevant or unnecessary.

(6) On the grounds of their suggestions, a revised inventory of the self-perception for the college going students consisting of 155 items was prepared. The questionnaire was given to different experts from colleges and well-known institutions. They were requested to examine the contents of the inventory and were asked
to suggest modifications from the psychological and educational point of view. Their suggestions were incorporated into the final form of the Self-Perception Inventory (SPI), distributed among the following areas:

(a) Physical appearance.
(b) Family Relations.
(c) College Life.
(d) Personality Traits.
(e) Social Relations.
(f) Additional Areas suggested by the Ss.

(7) Once again the SPI was administered to 20 subjects, but this time the response form was of multiple choice. The subjects being college students, having a better comprehension level preferred the multiple choice response form compared to 'Yes' and 'No' response because they were in a position to answer more precisely. However it was necessary to decide how many alternatives to be given to the Ss. For this 10 subjects were given 3 alternatives on a three point scale on SPI and the other 10 subjects were given seven alternatives i.e. on a seven point scale on the SPI. It was decided to keep the 5 point scale for measurement purposes.

The five point rating scale was given priority to the other scales because of the following reasons:

(a) The seven point scale was found to be a bit difficult for an average college going student of Gujarat University.
(b) The Gujarati college going population is not trained for self-analysis and its explicit expression. A test consisting of more than 150 questions with a seven point scale would become little confusing for these Ss to answer properly.

(c) The three point scale was found to be comparatively very easy at the college level.

(8) Finally the Self-Perception Inventory (SPI) with a five point scale was constructed in which positive and negative questions were differentiated from the very beginning. A separate answer sheet was prepared for the marking of responses. The subjects had simply to tick mark on the response sheet, the category which he or she felt the most suitable to him or her.

(ii) SCORING OF RESPONSES:

ROBERT BURNS (1979) has shown two general methods that can be adopted for assessing the self concepts of the subjects.

(a) The first is of inferring the self-concept from the behaviour observed by a single or set of external observers. This approach is limited to individual assessment because it is highly time consuming and requires a serious training in its application. It cannot be applied to large groups. Therefore today it is mainly used in psychological clinics and for the assessment of military personnel, where the number of Ss are always limited.
(b) The second is by enabling the individual to report on himself in responding to test items, his self-concept or some specific element of it can be indexed in the form of a score. This paper and pencil method is applicable to individual and more to group administration. For the present study, this method of assessment was adopted since the strength of the sample was large. Over and above this, the present study was concerned with normal college population. So the questionnaire method was given priority over the observation method.

As mentioned earlier the Self-Perception Inventory (SPI) was constructed with a five point rating scale adopting the Likert Model. The subject responds to each question by endorsing the degree to which the item applies or characterises him along a defined scale. For the rating of responses, the number of responses thus obtained per each item were classified into five categories on the basis of variation in the degree of satisfaction as shown below:

A - The responses that showed complete satisfaction.
B - The responses that showed satisfaction most of the times.
C - The responses that showed satisfaction moderately.
D - The responses that showed partial dissatisfaction.
E - The responses that showed complete dissatisfaction.
F - Omit.

In the response sheet there was a provision for the last column designated as zero. This column was seperately preserved for those questions which the subjects failed to answer or he had not come accross such experiences in his or her life.
time. These responses were omitted. However the Ss were asked to 
minimise these kind of responses as far as possible. Those Ss who 
showed more than 15% of responses belonging to this category were 
omitted from the normal sample.

The rating scale method gave the Ss a wide range of 
responses from which they could choose the one most suitable to 
them. This enabled the S to show the exact degree of 
satisfaction that he had within himself.

A key sheet showing the weightage of each of the 
response was prepared for scoring purpose. The values of the 
ratings were used as numerical weights to arrive at a total score 
for all the items.

For the positive questions the values of the ratings were:

<table>
<thead>
<tr>
<th>5</th>
<th>4</th>
<th>3</th>
<th>2</th>
<th>1</th>
</tr>
</thead>
<tbody>
<tr>
<td>Completely</td>
<td>Mostly</td>
<td>Usually</td>
<td>Occasionally</td>
<td>Never</td>
</tr>
</tbody>
</table>

For the negative questions the values of the ratings 
were:

<table>
<thead>
<tr>
<th>5</th>
<th>4</th>
<th>3</th>
<th>2</th>
<th>1</th>
</tr>
</thead>
<tbody>
<tr>
<td>Completely</td>
<td>Mostly</td>
<td>Usually</td>
<td>Occasionally</td>
<td>Never</td>
</tr>
</tbody>
</table>

There are in all 33 negative questions. The positive 
and negative questions were mixed up to avoid positional effect. 
For each response the value was given as per the category. These 
were added to finalise the scoring of each and every question.
Unattempted questions were not counted in the final scoring. Ultimately the sum total of positive and negative questions was considered to be the final score on the SPI.

(iv) **THE PROBLEM OF VALIDITY AND RELIABILITY**

The validity of a test concerns what the test measures and how well it does so. According to ANASTASI (1972) "No test can be said to have 'High' or 'Low' validity in the abstract." Its validity must be established with reference to the particular use for which the test is being considered. ANASTASI and FREEMAN (1972) have discussed various criteria generally used for testing validity. While developing a new instrument, it is necessary to use as many criteria of validity as possible because a single criterion taken alone may prove to be misleading. This is especially true in those areas of research which are relatively unexplored. Validation against a number of criteria will certainly help in strengthening the values of the test for what it is meant to measure or for predictive purpose in the future.

In this study, the research worker has tried to validate the SPI against many possible criteria. They are discussed below:

(a) **OPERATIONAL AND CONTENT VALIDITY**

Operation in simple terms means an activity or a function. The operational criterion of validity implies that all the psychological concepts a test intends to measure are first defined in terms of actual activities through which these concepts are manifested. This relationship between concept and
activity is established by observation, expert opinion and prediction. According to ROBERT BURNS (1979) "The operational definition provided by the individual researcher becomes the major starting point in deciding what is actually being measured". For the Self-Perception Inventory (SPI), JERSILD (1952) and LIVESLEY and BROMBLEY (1973) have given illustrations from the day-to-day activities of children and adolescents that are expressions of the different conceptual aspects of the self-perception known through interviews. In the present study, similar activities from Gujarati and Non-Gujarati population, that expressed the same conceptual frame work were selected.

CONTENT - VALIDITY :

Involves essentially the systematic examination of the test-content to determine whether it covers a representative sample of behaviour domain to be measured and to check whether the test-content are relevant. The following steps were taken to establish content validity.

1) Descriptive reports on 'Myself' were collected from the individuals of the age ranging from 17 to 21 years. As a guideline they were given different aspects of one's self to be described like one's looks, studies, family, relatives personalities traits like honesty, sincerity, responsibility, leadership attitude towards opposite sex etc. They were asked to describe their actual life situations that would be taken as a representative of these traits. The reports were content analysed and typical life situations were selected.
(2) The content analysis was shown to the two professors of psychology and to two clinical psychologists. The suggested improvements were introduced. This was done to establish EXPERT VALIDITY of the test.

(3) FACE VALIDITY: was established by examining that the items in the test did not appear to be inappropriate, silly or childish. Secondly as far as the self-concept is concerned, ROBERT BURNS (1979) states that "content validity is almost equivalent to face validity in the sense that all the test need contain are items which require the elicitation of self-evaluative responses from the subjects". STRONG and FEDER (1961) claim that every evaluative statement made by a person about himself can be considered a sample of his self-concept. So this criterion for face and content validity appears easily met.

(4) Content Validity was further tested by correlating the mean scores on the SPI obtained by administering the inventory through two different methods that is through the Questionnaire method and the Interview method on the same sample. The Ss selected were 50 college going students who were divided into group of 25 each. A comparatively homogeneous sample was selected who were matched on their mean achievement level and cultural background.

In the questionnaire method the Ss were required to underline or tick mark any one alternative response for each question that suits him or her the best. In the interview method, the same questions were read to the Ss, their meanings were clarified if necessary, and the Ss was asked to respond in his
own words. These responses were written down and classified into the suitable category. In order to counterbalance the effect of past experience, while responding to the same inventory second time, the design was changed. This helped in controlling the intervening variables.

**TABLE NO. 3:1 METHOD OF PRESENTING THE QUESTIONNAIRE AND INTERVIEW TO THE Ss.**

<table>
<thead>
<tr>
<th>Group I (25=Ss)</th>
<th>Questionnaire</th>
<th>Interview</th>
</tr>
</thead>
<tbody>
<tr>
<td>Group II (N=25 Ss)</td>
<td>Interview</td>
<td>Questionnaire</td>
</tr>
</tbody>
</table>

As an added control, the time interval between these two settings was not less than 30 days for each group. The obtained scores by both the methods were grouped as follows:

**TABLE NO. 3:2 DISTRIBUTION OF THE SCORES OBTAINED BY Ss ON THE QUESTIONNAIRE AND INTERVIEW TO THE Ss.**

<table>
<thead>
<tr>
<th>Group (N=25)</th>
<th>Questionnaire I</th>
<th>Interview II</th>
</tr>
</thead>
<tbody>
<tr>
<td>Group (N=25)</td>
<td>II</td>
<td>II</td>
</tr>
</tbody>
</table>

The total scores of both these methods were correlated by using Spearman's Rank Order Method:
In this way, the content validity was established which also simultaneously helped in establishing the reliability of SPI, because the instrument which is not reliable can hardly be valid. SELTIZ ET AL (1962) STATES THAT "....... to the extent that a method is unreliable, its lacks validity". This also helped in gaining greater degree of certainty about the correct understanding of the test items on the part of the Ss. The above table shows a satisfactory level of understanding of the test items on the part of Ss, so it can be taken as one of the criterion for the validity of the instrument. When this level of validity is established, its statistically significant correlation with any other method of presentation of the same instrument may be taken as an indicator of validity for the new method of presentation.

In the present study, the results of the interview method show significant correlation with the results of the Questionnaire method. This serves two purposes; it establishes the validity of SPI; it also shows that the instrument can be used either by the Questionnaire method or by the interview method. In either case the responses of the Ss will be more or less in closer agreement statistically.
(b) **THE CONSTRUCT VALIDITY** of the test was not established because
the selection of items was done on empirical basis and from
different theoretical constructs.

(c) **CONCURRENT VALIDITY** :

Attempts have been made in the past to establish the
concurrent validity of the Self-Concept tests by correlating the
self-concept scores to the present level of adjustments. **FREEMAN**
(1962) states that "Psychologists prefer the term 'Concurrent
Validity' to indicate the process of validating the new test by
correlating it, or otherwise comparing it for agreement with some
present source of information". This source of information is the
criterion against which the new instrument is validated. It shows
how well people score on a certain test, who have already
achieved a certain status on a previously standardized test,
**ENGLISH and ENGLISH** (1962). It may also be taken as the degree of
correlation between the scores of two tests, especially when one
of them is newly devised and the other one is well established,
standardized instrument.

This method was not used directly for validation as
there is no other Gujarati test equivalent to the SPI for the
measurement of the subject's own perceptions as perceived by
himself towards his personality. The **Self-Perception Inventory**
(SPI) is the first of its kind prepared for the Gujarati and Non-
Gujarati college going population. Concurrent validity was
established indirectly on the basis of the theoretical
implications stated in the earlier chapters.
As pointed out previously that Self-Perception and overall adjustment are positively correlated, the scores obtained on SPI, if positively correlated with a standardized adjustment measurement, may be taken a validating criterion for the former.

Thus, the SPI was validated against the Incomplete Sentence Blank (ISB) (BHATT, 1972), a semi projective technique which measures an overall adjustment score for the college going population. The technique consists of 40 sentence stem which the S is required to complete as he finds fit. This instrument was specifically used because its projective nature would be a better indicator of the degree of adjustment. Accordingly another random sample of 30 students were selected out of which 18 females and 12 males were both administered SPI and ISB. The responses were categorised with the help of experts in Clinical Psychology. The correlation obtained by the Spearman Rank Order was .45 (P < .01)

<table>
<thead>
<tr>
<th>ITEMS</th>
<th>RHO</th>
<th>DF</th>
<th>LEVEL OF SIGNIFICANCE</th>
</tr>
</thead>
<tbody>
<tr>
<td>SPI &amp; ISB</td>
<td>.45</td>
<td>28</td>
<td>0.1</td>
</tr>
<tr>
<td>QUESTIONNAIRE &amp; INTERVIEW</td>
<td>.51</td>
<td>48</td>
<td>0.1</td>
</tr>
</tbody>
</table>

The above results shows that concurrent validity for the SPI is fairly well established.
(d) THE PROBLEM OF RELIABILITY:

Reliability is a measure of the accuracy and stability of a test. Reliability is concerned with the dependability of measurement either on repeated administration of the test, from one position to another form of the test. (Watson, 1951). Three empirical methods of reliability are discussed at length by Anastasi (1988), they are mentioned below:

1. The correlation between scores on the same test given at different times (test-retest method).
2. The correlation between two parallel forms of the same test given on the same occasion, (Alternate form method).
3. The correlation between comparable parts of the same test (The Split-half Method).

The Reliability of the SPI was tested by using the Test-retest and by using the Split-half method. As discussed earlier while determining the content validity, the reliability was also established by the test-retest method. A group of Ss (N=50) were given the SPI by the Questionnaire Method and by the Structural Interview Method in a counter balanced design. The correlation obtained was 0.51 (df=48 P < .01). This suggests that even different modes of presentation of the SPI item do not change their meaning when administered second time to the same Ss.

(v) LIMITATIONS OF THE SPI:

1. The SPI is constructed keeping the college students in mind.
Therefore the test cannot be administered to younger or older groups.
(2) There is a limitation of language. The test can be administered only to those students who can read and understand English or Gujarati.
(3) Since the inventory consists of ISB questions, it becomes a little exhaustive for the Ss to answer.

The split half method was used by dividing the total scores on the SPI into the scores on the odd and even items. (N=50). The odd even split half method was preferred to any other method of distribution because it gave due justice to the area wise distribution of items. The reliability calculated by Spearman Brown formula was 0.94 which is fairly high to indicate a satisfactory level of internal consistency.

Thus, the SPI was thoroughly tested both for its validity and reliability before administration.

(B) INCOMPLETE SENTENCE BLANK (ISB) :
(i) PURPOSE OF THE TEST :

Since the Self-Perception Inventory was constructed in a Questionnaire form certain limitations were faced in its administration, scoring and interpretations.

(1) Faking becomes a very pronounced problem on the part of the Ss. As the test questions are worded in simple language the Ss can easily understand what are 'Good' answers and what are 'Bad' answers. He can therefore produce any kind of personality picture.
he has intended to. This will lead to distortion in results.

(2) Social desirability is another pervasive factor which distorts the results because at college level the overall self-acceptance by others gains a lot of significance for an individual, so there is a tendency of the Ss to attribute to themselves the traits or characteristics which social consensus would indicate are socially desirable while rejecting those that are socially undesirable.

(3) The accuracy of the responses elicited depends upon the Ss knowledge about his self. Many a times the Ss are not aware of the traits and characteristics that they possess. Ignorance may affect the test results.

(4) The accuracy of the responses elicited depends upon the cooperation and motivation of the subject.

Thus it was necessary in the present study to control these limitations as far as possible. For this purpose another standardized test the Incomplete Sentence Blank ISB (BHATT 1972) was administered to the Ss. The other purposes of introducing ISB were:

(1) As explained earlier since the Self-Perception Inventory constructed was a new test to measure the Self-Perception of the college going students, it was necessary to validate it by correlating the results of SPI with the results of a well standardized test in order to check the consistency of responses. The results on the ISB were taken as a validating criteria against the results of SPI.

(2) The purpose of the ISB is somewhat disguised although the Ss may be aware of the general intent, what constitutes a good or bad
answer is not readily apparent to most Ss. Thus the responses on ISB enabled the research worker to know something more about the Ss, especially about those aspects of his personality of which he was not clear or not interested in disclosing in the questionnaire.

(3) The ISB results helped to show the level of adjustment of the student in relation to his personality.

(ii) DESCRIPTION OF THE TEST :

The ISB is a semi-structural projective technique in which the Ss is asked to finish a sentence for which the first word or words are given. It is assumed that the subject projects his own wishes, desires, fears and attitudes in the sentences he completes. Here the Ss is more expressive, frank and open than in the questionnaire because the Ss is unaware of its disguised purpose.

For the present study, the Gujarati adaptation of ROTTER and RAFFERTY’S I.S.B. college form by DR. BHATT (1971) has been used. This test was originally prepared by ROTTER and RAFFERTY (1952). In the Indian content, BHATT (1971) selected 40 items for the administration to the student population. The items selected were covering the total span of adult adjustment like home-life, adjustments in educational field, general attitude towards life etc. Different types of items were selected to cover universal life experiences such as :-
At home ................
In my childhood........
My Mother..............
My Institution.......... 
Marriage ............... 

(iii) SCORING OF THE RESPONSES:

In the present instrument the method of scoring has
been adopted from the original ROTTER and RAFFERTY (1950) scoring
methods. Accordingly the scoring of complete sentences are
classified into seven categories. These categories are $C_3$, $C_2$, $C_1$, $N$, $P_1$, $P_2$, $P_3$ and omit. The nature of the response in each
category and the numerical weightage given to each category has
been shown in the table below.
### TABLE NO. : 3:5

**NATURE OF THE RESPONSE AND NUMERICAL WEIGHTAGE GIVEN TO EACH CATEGORY IN THE ISB:**

<table>
<thead>
<tr>
<th>TYPE OF RESPONSE</th>
<th>NATURE OF RESPONSE</th>
<th>NUMERICAL WEIGHTAGE</th>
</tr>
</thead>
<tbody>
<tr>
<td>C₃</td>
<td>Highest Conflicting Responses</td>
<td>6</td>
</tr>
<tr>
<td>C₂</td>
<td>Moderately Conflicting Responses</td>
<td>5</td>
</tr>
<tr>
<td>C₁</td>
<td>Mild Conflicting Responses</td>
<td>4</td>
</tr>
<tr>
<td>N</td>
<td>Neutral Responses</td>
<td>3</td>
</tr>
<tr>
<td>P₁</td>
<td>Adjusted &amp; Creative</td>
<td>2</td>
</tr>
<tr>
<td>P₂</td>
<td>Well Adjusted, Creative And Social</td>
<td>1</td>
</tr>
<tr>
<td>P₃</td>
<td>Highly Adjusted, Creative Self-Actualizing</td>
<td>0</td>
</tr>
<tr>
<td>OME</td>
<td>Omission</td>
<td></td>
</tr>
</tbody>
</table>

According to the classification given above any response can be classified into 3 areas positive or adjusted, neutral and conflict. Both positive P and conflict C responses have been further sub-classified into 3 categories which indicate normal, superior and supreme degrees in a given direction. P responses indicate healthy or hopeful frame of mind. Such responses are evidenced by numerous remarks, optimistic responses and acceptance of reality. Range of $P_1$, $P_2$, and $P_3$ are successive indication of good adjustment expressed in the responses.

$P_3$ responses include those which are extremely good natured, humorous, very warm acceptance of reality, real
optimism, a genuine desire to help others or personal confidence in achievement of very high goal. Such responses indicate very healthy adjustment with the environment.

$P_2$ responses include generalized positive feelings towards people, good social vocational adjustment, healthy family life, optimism, humour and each positive attitude with greater emphasis.

$P_1$ responses include a generally healthy attitude towards the situations of reality. It shows positive attitude towards hobbies, sports, institution, certain aspects of behaviour, persons etc. All these responses show a positive approach to a given stimuli.

N or neutral responses are generally stereotyped, catchphrases, proverbs, titles etc. written either in third person or in a way that does not involve the subject. This kind of responses are given when subject is lacking personal experience in the area concerned, or he deliberately wants to hide his real feelings.

$C_1$ responses indicate mild maladjustment or a conflict or dissatisfaction with the present, pessimism and hopelessness.

$C_2$ responses include more severe conflicts. It is expressed through a sense of deprivation, statements of unhappy past, hostility reactions and severe dissatisfactions. It shows higher degree of conflict than $C_1$ category.
$C_3$ responses are those indicating extreme sense of deprivation, ideas of destruction, extreme dissatisfactions and suicidal tendencies etc. It is an indication of severe maladjustment, where the person is not able to accept the reality and is either harmful to his own existence or to the society.

Omitted responses are those which the subjects do not attempt to complete.

Thus the responses of each and every subject were first classified into the suitable category by the research worker and then assigned numerical weightage accordingly to get a sum total of the final score on the statement of the ISB test.

(iv) LIMITATIONS OF THE TEST:

1. ISB cannot be administered to mentally depressed or schizophrenic patients.

2. There is no expert opinion about scoring, so its use is limited, but this to a great extent is controlled as an interview of the subject is taken for the proper evaluation of the given response.

3. There is a limitation of language. So the test can be given to those who are in a position to understand, read and write the language.

4. The test cannot be given to young children and illiterates because they cannot understand and give right response. Therefore test requires some amount of experience - positive and negative, so that all the 40 statements can be completed.
A total sample of 300 college going students was selected for the study. The sample was drawn from two main groups i.e. the cosmopolitan group of Bombay and the metropolitan group of Ahmedabad respectively. Half of the sample was drawn from the cosmopolitan city of Bombay and the other half from the metropolitan city of Ahmedabad in order to study any significant differences between the Self-Perception of the college going students of Bombay and the college going students of Ahmedabad respectively. The research worker was further interested in finding out the Self-Perception of the students in relation to sex-differences in males and females. Accordingly a comparative sample of males and females in equal number was drawn. The sample drawn from the city of Bombay was divided into two groups of males and females, equal in number and the sample drawn from the city of Ahmedabad was divided into two groups of males and females in equal number. The purpose was to have various Intra-Group and inter-group comparisons between the two main groups.

The areawise and sexwise distribution of the sample is shown in table 3:6 given below:

<table>
<thead>
<tr>
<th></th>
<th>COSMOPOLITAN GROUP</th>
<th>METROPOLITAN GROUP</th>
<th>TOTAL</th>
</tr>
</thead>
<tbody>
<tr>
<td>MALES</td>
<td>75</td>
<td>75</td>
<td>150</td>
</tr>
<tr>
<td>FEMALES</td>
<td>75</td>
<td>75</td>
<td>150</td>
</tr>
<tr>
<td>TOTAL</td>
<td>150</td>
<td>150</td>
<td>300</td>
</tr>
</tbody>
</table>

Since the Self-Perception Inventory was prepared for the college level students, the age of the subjects varied...
between 17 to 21 years. The sample was drawn in such a way that it represented the regular students from all well established colleges of different faculties. From the cosmopolitan city of Bombay the data collection was done from 6 colleges of different faculties to give a representative look at the sample. From the metropolitan city of Ahmedabad, the data was collected from 5 colleges of different faculties to give a representative look at the sample. (The names of the colleges are given in the appendix.)

The sample has been selected in such a way that it covers important faculties of academic education. The students up to under graduate level are only included in the sample. The medical students and the students in diploma courses are not included. Due to the non-availability of more males in the Arts section, the sample was more drawn from the commerce colleges for equal distribution of the sexwise sample.
The collegewise distribution of the sample is shown in table No.3:7 given below:

**TABLE NO.: 3:7**

**COLLEGEWISE DISTRIBUTION OF THE TOTAL SAMPLE:**

<table>
<thead>
<tr>
<th>COLLEGE</th>
<th>COSMOPOLITAN GROUP</th>
<th>METROPOLITAN GROUP</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>MALES</td>
<td>FEMALES</td>
</tr>
<tr>
<td>ARTS</td>
<td>10</td>
<td>23</td>
</tr>
<tr>
<td>COMMERCE</td>
<td>32</td>
<td>27</td>
</tr>
<tr>
<td>SCIENCE</td>
<td>22</td>
<td>15</td>
</tr>
<tr>
<td>ENGINEERING</td>
<td>13</td>
<td>8</td>
</tr>
<tr>
<td>TOTAL</td>
<td>75</td>
<td>75</td>
</tr>
</tbody>
</table>

The research worker was also interested in finding out if there are any differences between the Self-Perception of Gujarati and Non-Gujarati College going students of Bombay and Ahmedabad city. The Gujarati and Non-Gujarati groups were taken in equal number from the total sample for comparison purposes. The purposive available sample of Gujarati and Non-Gujarati college going students was determined and distributed into respective groups from the category of religion in the data sheet. In the Non-Gujarati group the students were divided into sub-categories as per their religion but as the number of candidates was small the total Non-Gujarati sample was selected as a whole.
The purposive in available sample of Gujarati and Non-Gujarati group of males and females college going students is shown in Table No. 3:8 given below:

TABLE NO. : 3:8
THE TOTAL SAMPLE OF BOMBAY DIVIDED INTO GUJARATI AND NON-GUJARATI GROUPS:

<table>
<thead>
<tr>
<th>SEX</th>
<th>GUJARATI</th>
<th>NON GUJARATI GROUP</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Christians</td>
<td>Maha- rash-</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Indians</td>
</tr>
<tr>
<td>MALE</td>
<td>38</td>
<td>10</td>
</tr>
<tr>
<td>FEMALE</td>
<td>37</td>
<td>9</td>
</tr>
<tr>
<td>TOTAL</td>
<td>75</td>
<td>19</td>
</tr>
</tbody>
</table>

TABLE NO. : 3:9
THE TOTAL SAMPLE OF AHMEDABAD DIVIDED INTO GUJARATI AND NON-GUJARATI GROUPS:

<table>
<thead>
<tr>
<th>SEX</th>
<th>GUJARATI</th>
<th>NON GUJARATI GROUP</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Christians</td>
<td>Maha- rash-</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Indians</td>
</tr>
<tr>
<td>MALE</td>
<td>38</td>
<td>6</td>
</tr>
<tr>
<td>FEMALE</td>
<td>37</td>
<td>4</td>
</tr>
<tr>
<td>TOTAL</td>
<td>75</td>
<td>10</td>
</tr>
</tbody>
</table>

The research worker also wanted to study the relationship between the Self-Perception and achievement level in the college going students of the Bombay and Ahmedabad city respectively. The marks in the terms of percentage was considered
to be the achievement level of the subject. The information was obtained by asking the Ss to mention the annual marks of the last University examination cleared. The classification of the achievement level was done in the sample as shown in Table No. 3:10 given below:

**TABLE NO. :3:10**

**DISTRIBUTION OF COLLEGE ACHIEVEMENT LEVEL IN THE TOTAL SAMPLE :**

<table>
<thead>
<tr>
<th>COLLEGE ACHIEVEMENT LEVEL</th>
<th>COSMOPOLITAN GROUP</th>
<th>METROPOLITAN GROUP</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>MALES</td>
<td>FEMALES</td>
</tr>
<tr>
<td>I</td>
<td>27</td>
<td>38</td>
</tr>
<tr>
<td>II</td>
<td>24</td>
<td>26</td>
</tr>
<tr>
<td>III &amp; IV</td>
<td>24</td>
<td>11</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td>75</td>
<td>75</td>
</tr>
</tbody>
</table>

(V) **DATA COLLECTION :**

The principals of the selected colleges were sent an introductory letter in advance to grant permission for data collection. The purpose of the present research, the kind of data required and approximately the total time that would be necessary to complete the task was explained by the research worker personally. They were requested to give active co-operation (A copy of the letter is given in the appendix). After receiving the affirmative replies, the research worker visited the colleges for data collection.

The SPI and ISB were cyclostyled on both the sides of the fulscap paper. Cyclostyling was preferred to printing for
both the tests, because the type was bold, darker and not too strainful for the eyes, as compared with the printed material.

(i) ADMINISTRATION OF SPI:

The research worker was introduced by one of the professors in the college to the students and sufficient rapport was established by asking their names and other details so that they would get a little familiar with the kind of work they would be assigned to. Before giving the data sheets of SPI, it was ensured that the sitting arrangement of the Ss is done properly for them to get sufficient space, light, and air and also prevented each other from talking. At a time not more than 15 Ss were taken and were asked to sit separately in the classroom to prevent them from copying. The data sheets were given and the Ss were asked to fill in all the details required. These data sheets were checked to see whether Ss had filled in all the details and not missed out anything. Then the instructions were read in clear and slow voice to enable the Ss to understand properly. The instructions are given below:

"Kindly go through the following questionnaire and answer each question on the separate answer sheet. You must denote the category of response that want to answer. Do not worry. There are no right or wrong responses. Please feel free to answer about yourself. This is only to know what the students of your age group think about themselves and their family, college and other aspects of life. So please be frank and answer as honestly as possible."
Do not omit any questions. If you do not understand, please ask. Take your own time and try to finish the whole set of questions sincerely. Your responses will be kept confidential.

It took about 40 minutes for the Ss to finish the inventory. The research worker remained present during this time so that any the Ss had any doubts or difficulty in understanding, it could be cleared on the spot. The data sheets were then taken back after an overall checking.

(ii) ADMINISTRATION OF ISB:

The Incomplete Sentence Blank was administered to the Ss in the uniform way as was done for the SPI method. The data sheets were given to them to fill in their names and other details, then the instructions were read to the Ss in a clear and slow voice. The instructions are given below:

"Here you will find certain incomplete sentences. Try and complete them with the first idea that comes to your mind. Write only one sentence and feel free to write whatever you can think, there is no time limit for the test but try to finish it as quickly as possible."

It took about 35 minutes for the Ss to finish the test. The research worker was present throughout so that the Ss could have on the spot clarification of any difficulty. After the Ss finished, they were called for an interview one by one. This helped the research worker to clarify the responses of the Ss so
as to interpret them correctly according to what the Ss thinks. The research worker also made note of any extra details elicited from the Ss. After this, the subject was thanked for his cooperation and allowed to go. A uniform procedure was followed for all the colleges and for both the groups of Bombay and Ahmedabad respectively.

The actual data collection took about seven months. After the data collection was complete all the inventories were scrutinized. Those which were incomplete or seemed to be answered haphazardly were omitted. Only those which satisfied the research worker about their genuinity were included in the actual data.

VI. SCORING AND TABULATION :

For each and every subject of the sample, the following three scores were obtained:

(1) SPI Score ............ Self-Perception Inventory Score.
(2) ISB Score ............. Incomplete Sentence Blank Score on adjustment.
(3) Achievement level..... Percentage obtained at the last university examination.

The understanding of the scoring of these tests is necessary. It is given below:

(1) SPI SCORE :

The SPI Inventory follows the LIKERT's method of rating
where positive statements are scored in a descending series from 5 to 1, and the negative statements are scored in an ascending series from 1 to 5. Hence a subject's SPI score is the sum total of the assigned numerical value to the responses he has given on 155 questions of the inventory. It would mean higher the score better the self-perception.

(2) ISB Score :

This semi-projective adjustment measurement technique follows the rating scale method of scoring. The seven response categories range from the areas of high conflict to high adjustment. The research worker decided after the discussion with each Ss, which particular category each response of the 40 statements would fall. The categories followed the numerical weightage of 6 to 0 from the highly conflicting to the highly adjusted ones. (This has already been shown while discussing the test). Hence a subject's ISB score will be the sum total of all numerical values he obtains on the different items.

(3) Achievement Level :

The achievement level was considered to be the percentage of marks, obtained by the subject on the last university examination.

The scoring was done as per the method mentioned above and the entire sample was classified into the following groups for the purpose of comparison.
In order to obtain the results on the 't' test, inter-group comparisons from the above group were drawn.

(VII) STATISTICAL ANALYSIS:

Different statistical treatments have been used for the analysis of data.

(1) The 't' test has been used to study the significant differences in the self perception of Bombay and Ahmedabad college going sample. It is also used to study the significant sex and cultural differences in the Self-Perception of the sample. The same test is used for studying the significant differences in the adjustment level of the Ss.

(2) The Spearman Rank Order Correlation (Rho) is used to study the degree of correlation between the Self-Perception of college going students and their adjustment level.

(3) Chi-Square ($X^2$) has been used to find out the relationship between Self-Perception of the students and their achievement level.

The actual results obtained are discussed in the next chapter.