This chapter deals with all the methodological and procedural aspects of the problem. It explains sample, description of the tools employed and procedure adopted in data collection, besides the statistical operations carried out for the treatment of the data.

4.1. METHOD

In the present study descriptive survey method was employed in order to collect data from adolescents of Government and privately managed recognized schools from different Districts of Punjab.

4.2. SAMPLING METHOD

Sampling may be defined as the process of obtaining information about an entire population by examining only a part of it. Generally, researchers select only a part of the whole population which can act as representative of the population and is called sample. Commonly used sampling methods are random sampling, stratified or quota, incidental or purposive sampling.

The stratified random sampling technique was employed in the present study due to heterogeneous characteristics of the population and according to the purpose of the study.
It is that method of investigation which attempts to describe and interprets what exists at present in the form of conditions, practices, processes, trends, effects, attitudes, beliefs, point of views that are held, processes that are going on, influences that are being felt and trends that are developing. It is an organized attempt to analyze, interpret and report the present status of a social institution, group or area.

4.3. SELECTION OF THE SAMPLE

The sample of the present study was drawn from (19) senior secondary government and privately managed schools of Punjab.

Out of the total sample of 800 adolescents 400 adolescents were selected from the schools situated in rural areas and 400 adolescents were selected from the schools situated in urban areas.

Out of the 400 rural adolescents 200 females and 200 males were selected. Similarly out of 400 urban adolescents 200 females and 200 males were selected. Again out of 200 rural male adolescents 100 male adolescents were selected from government schools and 100 male adolescents were selected from private schools. Similarly out of 200 rural female adolescents 100 female adolescents were selected from government schools and 100 female adolescents were selected from private schools. The same procedure was adopted in the selection of the adolescents from urban areas.

Description of the sample has been given in table 4.1
### TABLE 4.1
**DESCRIPTION OF SAMPLE**

<table>
<thead>
<tr>
<th>Sr. No.</th>
<th>Name of the Institution</th>
<th>Government Male</th>
<th>Female</th>
<th>Private Male</th>
<th>Female</th>
<th>Type of School</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Govt. Sr. Sec. School Hoshiarpur</td>
<td>50</td>
<td>X</td>
<td></td>
<td></td>
<td>Urban</td>
</tr>
<tr>
<td>2.</td>
<td>Govt. Sr. Sec. School Jalandhar</td>
<td>25</td>
<td>25</td>
<td></td>
<td></td>
<td>Urban</td>
</tr>
<tr>
<td>4.</td>
<td>Govt. Sr. Sec. School Kamalpur &amp; Nai Abadi Hoshiarpur</td>
<td>X 25</td>
<td></td>
<td></td>
<td></td>
<td>Urban</td>
</tr>
<tr>
<td>5.</td>
<td>Govt. Sr. Sec. School Rly Mandi Hoshiarpur</td>
<td>X 25</td>
<td></td>
<td></td>
<td></td>
<td>Urban</td>
</tr>
<tr>
<td>6.</td>
<td>D.A.V. Sr. Sec. School Hoshiarpur</td>
<td></td>
<td>50</td>
<td></td>
<td></td>
<td>Urban</td>
</tr>
<tr>
<td>7.</td>
<td>Modern Sr. Sec. School Gurdaspur</td>
<td></td>
<td>25</td>
<td>25</td>
<td></td>
<td>Urban</td>
</tr>
<tr>
<td>Sr. No.</td>
<td>Name of the Institution</td>
<td>Government Male</td>
<td>Government Female</td>
<td>Private Male</td>
<td>Private Female</td>
<td>Type of School</td>
</tr>
<tr>
<td>---------</td>
<td>-------------------------</td>
<td>-----------------</td>
<td>-------------------</td>
<td>--------------</td>
<td>----------------</td>
<td>----------------</td>
</tr>
<tr>
<td>9.</td>
<td>P.D. Sr. Sec. School Hoshiarpur</td>
<td>25</td>
<td></td>
<td></td>
<td></td>
<td>Urban</td>
</tr>
<tr>
<td>10.</td>
<td>S.D. Sr. Sec. School Hoshiarpur</td>
<td>25</td>
<td></td>
<td></td>
<td></td>
<td>Urban</td>
</tr>
<tr>
<td>12.</td>
<td>Govt. Sr. Sec. School Haripur (Jalandhar)</td>
<td>25</td>
<td>25</td>
<td></td>
<td></td>
<td>Rural</td>
</tr>
<tr>
<td>14.</td>
<td>Govt. Sr. Sec. School Nasrala, Hoshiarpur.</td>
<td>25</td>
<td></td>
<td></td>
<td></td>
<td>Rural</td>
</tr>
<tr>
<td>15.</td>
<td>Govt. Sr. Sec. School Bagga</td>
<td>25</td>
<td></td>
<td></td>
<td></td>
<td>Rural</td>
</tr>
<tr>
<td>Sr. No.</td>
<td>Name of the Institution</td>
<td>Government Male</td>
<td>Government Female</td>
<td>Private Male</td>
<td>Private Female</td>
<td>Type of School</td>
</tr>
<tr>
<td>---------</td>
<td>-------------------------</td>
<td>------------------</td>
<td>-------------------</td>
<td>--------------</td>
<td>----------------</td>
<td>----------------</td>
</tr>
<tr>
<td>16.</td>
<td>Little Flower Sr. Sec. School Harse Chinna, Amritsar</td>
<td>25</td>
<td>25</td>
<td>25</td>
<td>25</td>
<td>Rural</td>
</tr>
<tr>
<td>17.</td>
<td>S.D. Sr. Sec. School Sham Churasi, Hoshiarpur</td>
<td>25</td>
<td>25</td>
<td>25</td>
<td>25</td>
<td>Rural</td>
</tr>
<tr>
<td>18.</td>
<td>Tagore Sr. Sec. School Nakodar, Jullandhar</td>
<td>25</td>
<td>25</td>
<td>25</td>
<td>25</td>
<td>Rural</td>
</tr>
<tr>
<td>20.</td>
<td>Total</td>
<td>200</td>
<td>200</td>
<td>200</td>
<td>200</td>
<td></td>
</tr>
</tbody>
</table>

4.4. DESIGN OF THE STUDY

115
DESIGN OF THE STUDY

100 from (Pvt. Schools)

100 from (Govt. Schools)

200 (Female)

400 (Urban)

100 from (Govt. Schools)

200 (Male)

100 from (Govt. Schools)

100 from (Pvt. Schools)

200 (Female)

100 from (Govt. Schools)

200 (Male)

400 (Rural)

100 from (Govt. Schools)

100 from (Pvt. Schools)

800
4.5. TOOLS USED

Following tools were employed for data collection in the present study.

1. Mental Health Battery (Singh and Gupta, 1999).
2. Educational Aspiration Scale (Sharma and Gupta, 1971).
3. 'Emotional Intelligence Scale' (Anukool, Sanjyot and Dhar 2001).
4. Self concept Questionnaire (Saraswat 1996).

4.5.1. MENTAL HEALTH BATTERY (SINGH AND GUPTA 1999).

This test was preferred over the other tests due to its availability and good results. This test has already been used by other researchers.

Test is divided in six parts and the items are related with the mental health of the adolescents.

Students were supposed to give answer on the same test booklet. Total time to complete this test is 40 minutes.

Answers were scored as per the directions given in the manual of the test.

METHOD

After reviewing the literature in this field (Jahoda, 1959; Maslow & Mittlema 1951; Rogers, 1961; Whittaker, 1970). following six popular indices of mental health were finally selected for inclusion in the present battery:
A brief description of each of these indices is as under:

(1) **Emotional Stability**

It refers to experiencing subjective stable feelings which have positive or negative values for the individual.

(2) **Adjustment**

It refers to individual's achieving an overall harmonious balance between the demands of various aspects of environment, such as home, health, social, emotional and school on the one hand and cognition on the other.

(3) **Autonomy**

It refers to a stage of independence and self-determination in thinking.

(4) **Security-Insecurity**

It refers to a high (or low) sense of safety, confidence, and freedom from fear, apprehension or anxiety particularly with respect to fulfilling the person's present or future needs.

(5) **Self-Concept**

It refers to the sum total of the person's attitudes and knowledge towards himself and evaluation of his achievements.
(6) **Intelligence**

It refers to general mental ability, which helps the person in thinking rationally, and in behaving purposefully in his environment.

**Item Analysis**

MHB intends to assess the status of mental health of persons in the age range of 13 to 22 yrs. As it is a battery of six tests, so items for each part were separately written and submitted to a group of experts in the fields to judge their face validity. Subsequently, language experts also made necessary corrections and modifications. Following Kelley's method, \( N = 370 \) they were subjected to item analysis which finally yielded about 150 items for the MHB. In selecting item preference was given to those items which had high positive discrimination index (Singh, 1998). The social desirability values of the items in the first five parts were determined by correlating the items with Hindi version of Marlowe-Crowne (M-D) Social Desirability Scale (1960). Items which yielded high and significant correlations, with M-D scale were dropped. Finally a set of 130 items were retained for MHB. Following are 130 items selected dimensionwise for MHB.
Part I: Emotional Stability (ES) 15
Part II: Over-all Adjustment (OA) 40
Part III: Autonomy (AY) 15
Part IV: Security-Insecurity (SI) 15
Part V: Self-Concept (SC) 15
Part VI: Intelligence (G) 30

Total = 130

Answers were scored as per the directions given in one manual of the test.

**Scoring Key**

**Part I:**
Item Nos.: 1,2,3,4,5,6,7,8,9,10,12,14,15 = नहीं
Item Nos.: 6,11,13 = हौं

**Part II:**
Item Nos.: 16,19,22,26,27,30,35,37,40,41,42,43,47,49,50,52,53 = हौं
Item Nos.: 17,18,20,21,23,24,25,28,29,31,32,33,34,36,38,39,44,45,46,48,51,54,55 = हौं

**Part III:**
Item No.: 58,60,61,62,63,65,66 = क
Item Nos.: 56,57,59,64,67,68,69,70 = ख

**Part IV:**
Item Nos.: 71,72,73,74,75,77,79,80,82 = हौं
Item Nos.: 76,78,81,83,84,85 = हौं

**Part V:**
Item Nos.: 86,87,88,89,91,92,93,94,95,96,97,100=
Validity

MHB was validated against the different tests developed earlier. Part I of MHB was validated against Emotional Stability Test developed earlier by Sen Gupta & Singh (1985). Part II was validated against High School Adjustment Inventory (HSAI) developed earlier by Singh and Sen Gupta (1987) and Hindi adaptation of Bell’s Adjustment Inventory by Mohsin, Shamshad and Jehan (1967). For part III and part V construct validity was computed. Part IV was validated against Neuroticism Scale of MPI as adapted by Jalota & Kapoor (1975). Likewise, part VI was validated against Jalota Group General Mental Ability Test (1976). Only relevant parts of MHB with suitable criteria were given to the random sample of 102. The standard instructions of the test and the criteria were followed. The details are given in Table 2.
TABLE 2
Validity Coefficients of MHB

<table>
<thead>
<tr>
<th>Parts of MHB</th>
<th>N</th>
<th>Concurrent Validity</th>
<th>Parts of MHB</th>
<th>N</th>
<th>Construct Validity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Part I: ES</td>
<td>102</td>
<td>.673*</td>
<td>Part 11: AY</td>
<td>102</td>
<td>.681*</td>
</tr>
<tr>
<td>Part II: QA</td>
<td></td>
<td>.704*</td>
<td>Part V: SC</td>
<td></td>
<td>.601*</td>
</tr>
<tr>
<td>Part IV: SI</td>
<td></td>
<td>.821*</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Part VI: IG</td>
<td></td>
<td>.823*</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

* P < .01.

Reliability Both temporal stability reliability and internal inconsistency reliability of MHB were computed. The details are given in Table 1:

TABLE 1
RELIABILITY COEFFICIENT OF MHB

<table>
<thead>
<tr>
<th></th>
<th>Mean Age</th>
<th>N</th>
<th>Test-retest reliability</th>
<th>Odd-even (whole length) reliability</th>
</tr>
</thead>
<tbody>
<tr>
<td>I: Emotional Stability</td>
<td></td>
<td></td>
<td>r_{tt} = .876</td>
<td>r_{tt} = .725</td>
</tr>
<tr>
<td>II: Over-all Adjustment</td>
<td></td>
<td></td>
<td>r_{tt} = .821</td>
<td>r_{tt} = .871</td>
</tr>
<tr>
<td>III: Autonomy</td>
<td>15.6 Yrs.</td>
<td>102</td>
<td>r_{tt} = .767</td>
<td>r_{tt} = .812</td>
</tr>
<tr>
<td>IV: Security-Insecurity</td>
<td></td>
<td></td>
<td>r_{tt} = .826</td>
<td>r_{tt} = .829</td>
</tr>
<tr>
<td>V: Self-Concept</td>
<td></td>
<td></td>
<td>r_{tt} = .786</td>
<td>r_{tt} = .861</td>
</tr>
<tr>
<td>VI: Intelligence</td>
<td></td>
<td></td>
<td>r_{tt} = .823</td>
<td>r_{tt} = .792</td>
</tr>
</tbody>
</table>

All correlation values were significant (P < .01)
4.5.2. EDUCATIONAL ASPIRATION SCALE (SHARMA AND GUPTA 1971)

'Level of Aspiration' is a psychological construct which reflects a cognitive type of motivation of the individual. Frank (1935) defines it in terms of the level of future performance in a familiar task which an individual, knowing his level of past performance in that task explicitly undertakes to reach. James Drever explains it as a frame of reference involving self-esteem or alternatively as a standard with reference to which an individual experiences, i.e., has the feeling of success or failure.

Thus, the term level of Aspiration involves the estimation of his ability (whether over, under or realistic) for his future performance on the strength of his past experience (goal discrepancy), his ability and capacity, the efforts that he can make towards attaining the goal, thus set by him. The goal setting behaviour as well as the process of attaining the goal are consequences of his past experience, whether failure-oriented or success-oriented, level of efforts made by him in that direction, and his capacity to pursue the goal. Thus, four main points are distinguished in a typical 'sequence of events in a level of aspiration situation.

1. Last performance,
2. Setting of level of aspiration for the next performance
3. New performance, and
4. Psychological reaction to the new performance.

The difference between the level of the last performance and that of the new goal is called 'Goal Discrepancy' whereas
the difference between the goal level and that of the new 
performance is called 'Attainment Discrepancy'. The greater the 
discrepancy, whether goal or attainment, the lesser the chances 
of attaining the goal and the wider the frustration that the 
individual may experience. Thus, neither the over-estimation, 
nor the under-estimation, whatsoever they may be, but it is the" realistic 
estimation in terms of least goal or attainment discrepancy, that brings home; the highest level of satisfaction 
ascertaining his reality-oriented personality and consistency 
between his goal setting behaviour and his ability and efforts to 
attain the same.

The Present Scale

EAS, Form P has been designed for measuring the level of 
educational aspiration of pupils regardless of their grade or age; 
though norms have been primarily developed on secondary 
school pupil population, it could be widely used over other 
samples by interpreting the raw scores obtained in terms of 
levels of educational aspiration.

This scale has been developed on the rationale that (i) past 
experience (Pe) in terms of marks obtained estimate or goal set, 
success or failure experienced, (ii) - amount of efforts (Ae) made 
in the examination, (iii) ability and capacity (Ac) to study for the 
examination have a direct bearing upon setting a future goal. 
More specifically, it could be stated that:

\[ EAS = f(Pe \times Ae \times Ac) \]

With such a sequence, there are four main points in a 
level of aspiration situation (Lewin, K; Dembo, T; Festinger, L. 
and Sears P.S., 1944).
Typical Type Sequence

1 2 3 4

Last Setting of level New Reaction to
Performance performance performance

Goal discrepancy Attainment discrepancy

Feeling of success or failure related to difference of level 2 & 3

Thus the analysis of scores on EAS could give us (i) goal discrepancy scores, (ii) Attainment discrepancy scores, and (iii) feeling and direction: Goal discrepancy or attainment discrepancy in terms of over under-estimation would make the individual feel about his level of dissatisfaction or orientedness from the point of view of level of aspiration in relation with efforts made or ability possessed.

The Present Scale: The EAS Form P has been developed by taking into consideration the above variables operating in the past and present so far as setting the level of educational aspiration in future is concerned. Paired comparison technique has been employed. By resolving these primary variables into different factors which could be effective in the past, present and future, 45 items designed in a paired comparison form have been developed. These items have been refined several times.
from the point of view of the phraseology, structure and presentation.

**Administration:** EAS could be administered in group-situation. It is a self-explanatory scale. There is no time limit, however, it takes about 25 minutes to administer the whole scale.

The instruction for administration is given in the test booklet.

**Scoring:** There is no right or wrong answer. The subject has to compare between a pair of statement given in each of the items, and weight one of this two by putting a cross-mark against it. Scoring Key has been prepared for EAS by the help of 5 judges. Two category responses have been admitted. Either the response would be scored as 1 or as 0. The maximum score is 45 whereas the minimum is 0.
The total score determines the standing on the scale of the individual.

RELIABILITY AND VALIDITY

(I) Reliability

(a) Coefficient of stability by Test-Retest method. $r_{tt} = .98$

Coefficient of Internal consistency by odd-even technique using S-B formula $r_{tt} = .803$
(II) **Validity**

(a) Against scholastic Achievement (Board Exam.) \( r = 0.692 \)

(b) Predictive validity with

EAS, Form V .............................................................. \( r = 0.598 \)

4.5.3. **EMOTIONAL INTELLIGENCE SCALE (ANUKOOL, SANJOT AND DHAR, 2001)**

The author after consulting literature developed 106 items. Each item was transferred on a card. A panel of 50 judges with postgraduate degree and more than 10 years of experience in their relevant fields was prepared. Definition of Emotional Intelligence was also written on a card along with necessary instructions for the selection of the items on the cards. The cards were placed before each judge who was contacted individually. The choice for categorization of each card was noted and the frequency of choice was calculated.

The 34 items thus chosen were administered on 2000 individuals items, which were chosen 75% or more times, were spotted out. The data was tabulated and item total correlations were calculated. Items having correlation less than the value of \( 0.25 \) ( \( p < 0.01 \)) were dropped. The value is taken from Fisher and Yates (1992) table of correlation coefficients and their levels of significance. The final form of the scale constituted 34 items. The inter-item correlations of the final items were determined for English as well as Hindi version. The inter-item correlations of the final items were also determined.
Reliability

The reliability of the scale was determined by calculating reliability coefficient on a sample of 200 subjects. The split-half reliability co-efficient was found to be 0.88.

Validity

Besides face validity, as all items were related to the variable under focus, the scale has high content validity. It is evident from the assessment of judges/ experts that items of the scale are directly related to the concept of Emotional Intelligence. In order to find out the validity from the co-efficient of reliability (Garrett, 1981), the reliability index was calculated, which indicated high validity on account of being 0.03.

Factors of Emotional Intelligence

Ten factors were identified by the author. These are self-awareness, empathy, self motivation, emotional stability, managing relations, integrity, self development, value orientation, commitment and altruistic behaviour.

A. Self-awareness is being aware of oneself and is measured by items 6,12,18,29. These items are" I can continue to do what believe in even under severe criticism". I have my priorities clear," I believe in myself, and" I have built rapport and made and maintained personal friendships with work associates". This factor is the strongest and explains 26.8 percent variance and has a total factor load of 2.77. The correlation of this factor with total score is 0.66.

B. Empathy is feeling and understanding the other person and is measured by items 9,10, 15, 20 and 25. These are" I pay attention to the worries and concerns of others". I can listen to
someone without the urge to say something, " I try to see the 
other person's point of view, " I can stay focused under 
pressure, and" I am able to handle multiple demands." This factor explains 7.3 percent variance with a total factor load of 3.11. The correlation of the factor with total score is 0.70.

C. Self motivation is being motivated internally and is measured by 2,4,7,8,31 and 34. These items are" People tell me that I am an inspiration for them, " I am able to make intelligent decisions using a healthy balance of emotions and reason, " I am able to assess the situation and then behave, " I can concentrate on the task at hand inspite of disturbances," I think feelings should be managed. and" I believe that happiness is an attitude." This factor accounts for 6.3 percent variance and total factor load of 3.28. Its correlation with total score is 0.77.

D. Emotional stability is measured by items 14,19,26 and 28. These are "I do not mix unnecessary emotions with issues at hand," I am able to stay composed in both good and bad situations,". I am comfortable and open to novel ideas and new information and "I am persistent in pursuing goals despite obstacles and setbacks". This factor explains 6.0 percent variance with a total factor load of 2.51. The correlation of this factor with total score is 0.75.

E. Managing relations are measured by 1,5,11 and 17. The statements that measure this factor are, " I can encourage others to work even when things are not favourable. I do not depend on others' encouragement to do my work well. I am perceived as friendly and outgoing, and" I can see the brighter side of any situation". This factor explains 5.3 percent variance with a total factor load of 2.38. The correlation of this factor
with total score is 0.67.

**F. Integrity** is measured by items 16, 27, and 32. "I can stand up for my beliefs," "I pursue goals beyond what is required of me, and" "I am aware of my weaknesses" are the statements that measure this factor. This factor explains 4.6 percent variance with a total factor load of 1.88.

**G. Self-development** is measured by items 30 and 33 which are" I am able to identify and separate my emotions and" I feel that I must develop myself even when my job does not demand it" and explains 4.1 percent variance with a total load of 1.37.

**H. Value orientation** is measured by items 21 and 22. The statements are ": I am able to maintain the standards of honesty and integrity, and" I am able to confront unethical actions in others" and explains 4.1 percent variance with a total factor load of 1.29.

**I. Commitment** is measured by the items 23 and 24. ".. I am able to meet commitments and keep promises, and" "I am organized and careful in my work" measure this factor. This factor accounts for 3.6 variance with a total load of 1.39.

**J. Altruistic** behaviour is measured by the items 3 and 13. The items are" I am able to encourage people to take initiative, and" I can handle conflicts around me ". It explains 3.0 percent variance with a total factor load of 1.3

**Uses of the Scale:** The scale can be used for research and survey purposes. It can also be used for individual assessment. It is self-administering and does not require the services of highly trained tester. It is eminently suitable for group as well as individual testing.
**Limitations of the Scale:** In all the tests of this nature, the subjects do manage to get some insight into what the purpose is. As such, there is always the factor of "social desirability and faking". The scale purports to measure learned optimism of which the subject has some awareness. It should not be used as a tool for individual diagnosis unless supported by other evidences. Observations of other self-related perceptions is also required.

4.5.4. **SELF CONCEPT-QUESTIONNAIRE (SCQ) (SARASWAT, 1996)**

Self-concept questionnaire provides six separate dimensions of self-concept viz, physical, social, intellectual, moral, educational and temperamental self-concept. It also gives a total self-concept score.

The operational definitions of self-concept dimensions measured by this inventory are:

1. Physical- Individual's view of their body, healthy physical appearance and strength.
2. Social- Individuals sense of worth in social interactions.
3. Temperamental- Individuals view of their prevailing emotional state or predominance of a particular kind of emotional reactions.
4. Educational - Individuals view of themselves in relation to school, teachers and extracurricular activities.
5. Moral - Individuals estimation of their moral worth right and wrong activities.
6. Intellectual- Individuals awareness of their intelligence
and capacity of problem solving and judgements.

**Self-Concept Dimensions Alongwith their Item Numbers**

<table>
<thead>
<tr>
<th>Self-Concept Dimensions</th>
<th>Code No.</th>
<th>Item Numbers</th>
</tr>
</thead>
<tbody>
<tr>
<td>Physical</td>
<td>A</td>
<td>2, 3, 9, 20, 22, 27, 29, 31</td>
</tr>
<tr>
<td>Social</td>
<td>B</td>
<td>1, 8, 21, 37, 40, 43, 46, 48</td>
</tr>
<tr>
<td>Temperamental</td>
<td>C</td>
<td>4, 10, 14, 16, 19, 23, 24, 28</td>
</tr>
<tr>
<td>Educational</td>
<td>D</td>
<td>5, 13, 15, 17, 25, 26, 30, 32</td>
</tr>
<tr>
<td>Moral</td>
<td>E</td>
<td>6, 34, 35, 41, 42, 44, 45, 47, 49</td>
</tr>
<tr>
<td>Intellectual</td>
<td>F</td>
<td>7, 11, 12, 18, 33, 36, 38, 39</td>
</tr>
</tbody>
</table>

The inventory contains 48 items. Each dimension contains eight items. Each item is provided with five alternatives. Responses are obtained on the test booklet itself. There is no time limit but generally 20 minutes have been found sufficient for responding all the items. Instructions for the time of administration of the inventory are also given on the test booklets.

**Reliability:**

Reliability of the inventory by test-retest method was found to be .91 for total self-concept measure. Reliability coefficients of various dimensions varies from .67 to .88. Table below gives the detailed picture.
Reliability Co-efficients of Various Dimensions of SCQ

<table>
<thead>
<tr>
<th>Code No.</th>
<th>Dimension</th>
<th>Reliability co-efficient</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>Physical</td>
<td>.77</td>
</tr>
<tr>
<td>B</td>
<td>Social</td>
<td>.83</td>
</tr>
<tr>
<td>C</td>
<td>Temperamental</td>
<td>.79</td>
</tr>
<tr>
<td>D</td>
<td>Educational</td>
<td>.88</td>
</tr>
<tr>
<td>E</td>
<td>Moral</td>
<td>.67</td>
</tr>
<tr>
<td>F</td>
<td>Intellectual</td>
<td>.71</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>.91</td>
</tr>
</tbody>
</table>

Validity

Experts opinions were obtained to establish validity of the test. 100 items were given to 25 psychologists to classify the items to the category to which it belongs. Items of highest agreement and not less than 80% of agreement were selected. Thus construct and content validity were established.

Scoring Method

The respondent is provided with five alternatives to give his responses ranging from most acceptable to least acceptable description of his self-concept. The alternatives or responses are arranged in such a way that the scoring system for all the items will remain same i.e. 5, 4, 3, 2 and 1 whether items are positive or negative. The summated score for all the 48 items provide the total self-concept score of an individual. High score indicates high self-concept and vice versa.
4.5.5. HOME ENVIRONMENT INVENTORY (MISRA, 1989)

The present home environment inventory (HEI) is an instrument designed to measure the psycho-social climate of home as perceived by children. It provides a measure of the quality and quantity of the cognitive, emotional and social support that has been available to the child within the home. HEI has 100 items belonging to ten dimensions of home environment.

The ten dimensions are:-

a) Control
b) Protectiveness
c) Punishment
d) Conformity
e) Social isolation
f) Reward
g) Deprivation of Privileges
h) Nurturance
i) Rejection
j) Permissiveness, Each dimension has ten items belonging to it.

Administration of the Test

Home Environment Inventory can be administered in individual or group settings.

The responses are to be given on the booklet itself. There are five cells against every item of the inventory. Each cell indicates the frequency of occurrence of a particular behaviour.
The five cells belong to five responses namely, 'Mostly', 'Often', 'Sometimes', 'Least', and 'Never'. The dimension to which a particular item belongs has been indicated by alphabets near the serial number of the items. Assign 4 marks to 'mostly', 3 marks to 'often' 2 marks to 'sometimes' 1 mark to 'least', and 0 mark to 'never' responses. Count the marks assigned to A, B, C, D, E, F, G, H, I, and J dimension. Statements on every page and then add the dimension scores awarded to statements given on the five pages so as to get ten scores for the ten dimensions of HE I.

Items numbered I, 11, 21, 31, 41, 51, 61, 71, 81 and 91 belong to the 'Control' dimension, items al S. N. 2, 11, 22, 32, 42, 52, 62, 72, 82, and 92 belong to 'Protectiveness' dimension, skill 3, 13, 23, 33, 43, 53, 63, 73, 83 and 93 belong to 'Punishment' dimension, items 4, 14, 24, 34, 44, 54, 64, 74, 84 and 94 belong to the 'Conformity' dimension; items 5, 15, 25, 35, 45, 55, 65, 75, 85 and 95 belong to the 'Social Isolation' dimension, item. at no. 6. 16, 26. 36, 46, 56, 66, 76, 86 and 96 belong to the 'Reward' dimension; items at no. 7. 17, 27, 37, 47, 57, 67, 77, 87 and 97 belong to 'Deprivation of Privileges' dimension; 'Nurturance' to be measured through items at no. 8, 18, 28, 38, 48, 58, 68, 78, 88 and 98; items at no. 9, 19, 29, 39, 49, 59, 69, 79, 89 and 99 belong to the 'Rejection' dimension while items al no. 10, 20, 30, 40, 50, 60, 70, 80, 90 and 100, belong to the 'Permissiveness' dimension.

RELIABILITY

The 'Home Environment inventory was administered to 113 students (54 boys and 59 girls) studying in intermediate classes of five schools. Split half reliabilities were worked out
separately for all the ten dimensions of home environment. The split-half reliabilities (Corrected for length) for various dimensions of home environment are as follows:

Split half reliability coefficients for ten dimensions of Home Environment as measured by HEI.

<table>
<thead>
<tr>
<th>Inventory dimensions</th>
<th>Reliability Coefficient</th>
</tr>
</thead>
<tbody>
<tr>
<td>A Control</td>
<td>.879</td>
</tr>
<tr>
<td>B Protectiveness</td>
<td>.748</td>
</tr>
<tr>
<td>C Punishment</td>
<td>.947</td>
</tr>
<tr>
<td>D Conformity</td>
<td>.866</td>
</tr>
<tr>
<td>E Social Isolation</td>
<td>.870</td>
</tr>
<tr>
<td>F Reward</td>
<td>.875</td>
</tr>
<tr>
<td>G Deprivation of Privileges</td>
<td>.855</td>
</tr>
<tr>
<td>H Nurturance</td>
<td>.901</td>
</tr>
<tr>
<td>I Rejection</td>
<td>.841</td>
</tr>
<tr>
<td>J Permissiveness</td>
<td>.726</td>
</tr>
</tbody>
</table>

4.6. DATA COLLECTION

All the tools i.e. mental health, level of Aspiration, Emotional Intelligence, Self concept and Home Environment were administered to the adolescents studying in X class. The data were collected from the Sr. Sec. Schools from the State of Punjab. The Principals of the respective schools were requested
for permission to collect data.

The tools which were employed for the purpose of data collection for this study were lengthy and time consuming.

All the five tests were administered strictly according to the instructions given in the manual of each test. Each test was explained to subjects. The students were encouraged to give correct information and were assured that data will be used only for research purpose and will remain confidential. Instructions for each test as mentioned in the test manual were read out to the subjects and they were also requested to go through the instructions printed at the cover page of the test. The examples given in the tests were explained to the subjects. Doubts if any were removed before the actual tests were administered.

4.7. SCORING

The scoring of the response sheets was done by the investigator herself according to the instructions in the manuals.

4.8. STATISTICAL TECHNIQUES USED

1. Pearson’s product Moment co-efficient of co-relation.

2. Mean, Median, S.D., t-ratio techniques.