CHAPTER IV
METHODOLOGY

The present study aimed to investigate the effect of parental and guardians’ caring on self-concept, adjustment, social competence and achievement motivation. In this chapter, details are provided on selection of the sample, selection of the tools, assessment of self-concept, adjustment, social competence and achievement motivation, besides the objectives, hypotheses, variables and research design and so on.

Problem:
The present study was undertaken to determine:

1. If there are any differences in self-concept, adjustment, social competence, achievement motivation of college students living with parents and guardians and compare it, and;

2. If these four variables, on college students, are influenced by gender, SES, locale/area of domicile, stream of study course, year of study and age.

3. If these four variables are related to each other irrespective of whom they are living with.
Objectives of the Study:

The important objectives of the study may be stated as follows:

1. To determine and compare the effect of the nature of upbringing (parents and guardians) upon self-concept, adjustment, social competence and achievement motivation of college students.

2. To examine and compare the effect of the nature of upbringing (parents and guardians) and its interaction with gender (male and female) upon the self-concept, adjustment, social competence and achievement motivation of the college students.

3. To examine and compare the effect of the nature of upbringing (parents and guardians) and its interaction with socio-economic status (SES: LIG, MIG, HIG) upon the self-concept, adjustment, social competence and achievement motivation of the college students.

4. To examine and compare the effect of the nature of upbringing (parents and guardians) and its interaction with area (urban and rural) upon the self-concept, adjustment, social competence and achievement motivation of the college students.

5. To examine and compare the effect of the nature of upbringing (parents and guardians) and its interaction with stream (Arts, Science and Commerce) upon the self-concept, adjustment, social competence, achievement motivation of the college students.

6. To examine and compare the effect of the nature of upbringing (parents and guardians) and its interaction with year of study course (I, II and III) upon
7. To examine and compare the effect of the nature of upbringing (parents and guardians) and its interaction with age of the college students (below and above 19 years) upon the self-concept, adjustment, social competence, achievement motivation of the college students.

8. To find out if there is any relationship between self-concept, adjustment, social competency and achievement motivation.

**Hypotheses:**

The following null hypotheses have been formulated for the purpose of this investigation:

**H1:** Students living under parents and guardians do not differ significantly in their self-concept with respect to the following variables.

H1a: Gender (male and female).

H1b: Socio-economic status (Low, Medium and High).

H1c: Area of Residence (Urban and Rural).

H1d: Streams of study course (Arts, Science and Commerce).

H1e: Year of the study (I, II and III).

H1f: Age (below and above 19).

**H2:** Students living under parents and guardians do not differ significantly in their adjustment with respect to the following variables.
H2a: Gender (male and female).
H2b: Socio-economic status (Low, Medium and High).
H2c: Area of Residence (Urban and Rural).
H2d: Streams of study course (Arts, Science and Commerce).
H2e: Year of the study (I, II and III).
H2f: Age (below and above 19).

H3: Students living under parents and guardians do not differ significantly in their social competency scores with respect to the following variables.
H3a: Gender (male and female).
H3b: Socio-economic status (Low, Medium and High).
H3c: Area of Residence (Urban and Rural).
H3d: Streams of study course (Arts, Science and Commerce).
H3e: Year of the study (I, II and III).
H3f: Age (below and above 19).

H4: Students living under parents and guardians do not differ significantly in their Achievement motivation scores with respect to the following variables.
H4a: Gender (male and female).
H4b: Socio-economic status (Low, Medium and High).
H4c: Area of Residence (Urban and Rural).
H4d: Streams of study course (Arts, Science and Commerce).
H4e: Year of the study (I, II and III).
H4f: Age (below and above 19 years).
H5: There will not be significant interaction effects between groups (students living under parents and guardians) and selected independent variables (gender, SES, Area of residence, streams of study course, year of study, and age).

H6: There will not be mutual relationship between self-concept, adjustment, social competency and achievement motivation.

Variables used for the study

The following is a brief mention of variables utilized in the present study:

[A] Independent variables include:

- Parents (parental care-giving): Natural/biological parents (single and both).
- Guardians (non-parental care-giving): Individuals related by affinity like uncle, aunt, grandparents, etc., or non-related including hostel wardens, boarding masters/mistress, etc.
- Gender: Varied at two levels – male and female.
- Socio-economic status: varied at three levels – low, medium and high.
- Area of Residence: Varied at two levels – urban and rural.
- Stream of study course: Varied at three levels – Arts, Science and Commerce.
- Year of study: Varied at three levels – I, II and III year.
- Age: Varied at two levels – below and above 19 years.
Dependent variables:

The following four separate measures of the college students living with parents and guardians were utilized to gather data for the present study:

- Self-concept.
- Adjustment.
- Social competence.
- Achievement motivation.

Research Design

The present investigation is a cross-sectional study comprising of non-professional college students, both male and female, of different age groups (17 to 23 years), belonging to different religious persuasions, of varied socio-economic status and environmental/regional (urban/rural) background. The college students, studying under three streams viz.: Arts, Science and Commerce, are also at different levels of their academic pursuits (First, Second and Third year of their course study). Two different methods of sampling (random and systematic selection) are employed while choosing the students under two broad categories: those living with their parents and those living with their guardians. The researcher systematically used the already existing independent variables since their manifestations had already occurred; hence, the researcher did not manipulate the independent variables (parents and guardians). Therefore, the present study is “ex-post-facto” in nature. However, the dependant variables (levels/measures of self-
concept, achievement motivation, social competence and adjustment) were carefully chosen and attempts were made to measure them adequately.

The measurement of the dependent variables was obtained by administering on sample standard inventory and scales individually and/or in groups. The responses of the students living with their parents and guardians were collected, scored and analyzed separately. Further, attempts were made to study the impact of parental and non-parental style on the said dependent variables.

Sample Selection

The sample size of the present study is made up of 400 non-professional college students of Arts, Science and Commerce streams in the age range of 17 to 23 years who were studying in twelve aided and non-aided non-professional colleges in the State of Goa. The sample (400) is divided into two broad categories:

- Those students living with their parents. These are two hundred (200) in number, including 100 boys and 100 girls, and
- Those living with their guardians were 200 in number of which 100 were boys and the rest were girls.

Two methods of sampling were employed:

- The male and female college students living with their parents were randomly selected from the twelve non-professional colleges situated in urban and rural areas in the State of Goa.
Male and female college students living with guardians were systematically selected after identifying them from the students’ enrollment registers of the respective colleges.

With requisite prior permission from the respective Heads of the Colleges, the researcher made several visits to the colleges in order to identify students living with their guardians from the students’ enrollment registers of the colleges. Those students living with their guardians were contacted, with due permission, and the day-schedule for the administration of tests and scales was prepared. Besides teachers, the researcher also approached students and hostels in order to obtain the required sample.

The students were enthusiastic and highly co-operative in obliging with sincere responses to the tests and scales that were administered to them by the researcher.

The total sample size of four hundred non-professional college students, both male and female, studying at a different level of their course of study (First, Second and Third Year) and streams of study (Arts, Science and Commerce), belong to different religious persuasions, of varied socio-economic status and different environmental/regional/(urban/rural) background.

The details of the sample size in tabular form are presented as hereinafter appearing:
Table 1: Distribution of the Sample by Gender and Living Status of the Subjects (Sample Design – Non-Professional College Students).

<table>
<thead>
<tr>
<th>Gender</th>
<th>Living with Parents</th>
<th>Living with Guardians</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Male</td>
<td>100</td>
<td>100</td>
<td>200</td>
</tr>
<tr>
<td>Female</td>
<td>100</td>
<td>100</td>
<td>200</td>
</tr>
<tr>
<td>Total</td>
<td>200</td>
<td>200</td>
<td>400</td>
</tr>
</tbody>
</table>

The data for the present study was collected from students from the following colleges in North and South Goa.

**North Goa**
2. D.M.C. College of Arts and Commerce, Assagao.
3. Government College of Arts and Science, Pernem.
4. Saraswat College of Arts and Commerce, Mapuça.
5. Dhempe College of Arts and Science, Miramar, Panjim.

**South Goa**
2. Rosary College of Arts and Commerce, Navelim.
3. Damodar College of Commerce, Margao.
6. Fr. Agnel College of Arts and Commerce, Pilar.
7. P.E.S. College of Arts, Commerce and Science, Ponda.
The following inclusion and exclusion criteria were considered for the selection of the sample:

**Inclusion criteria**

- Students studying in non-professional colleges of Goa University.
- Students in the age group of 17-23 years.
- Students who consented to participate in the study.

**Exclusion criteria**

- Students studying in professional colleges.
- Students studying under private universities.
- Students studying under management colleges.
- Foreign students studying in different colleges including Non-residential Indians.
- Students studying B.Ed and B.P.Ed courses.

**Research Tools:**

A Personal Proforma (Appendix-I) was constructed to record relevant information of the sample group under study. Along with this general proforma, the following four psychological tests/scales were utilized:

1. **Self-concept Scale** by Rastogi (1979) was employed to measure the extent of college students' self-concept living with their parents and guardians.
2. **Adjustment Inventory**, by Palsane (1977), was used for the assessment of adjustment status in the different areas of the college students living under parents and guardians.

3. **Social Competence Scale (SCS)**, by Sharma, Shukla and Shukla (1992) was employed in order to measure college students’ social ability and interpersonal skills to effectively deal with the various problematic situations.

4. **Achievement Motivation (n-Ach) Scale** by Deo-Mohan (1985) was employed to measure the level of achievement motivation of the college students living under parents and guardians.

**Description of the Tools**

a) **Self-concept Scale**

The Self-concept Scale was developed by Rastogi (1979). The concept of self is the most important in Psychology of Personality and in Social Psychology. The term "self" has been used in many ways but the two chief meanings are: the “self” as the subject or agent and the “self” as the individual who is known to himself. Allport (1961) has described self-concept as “something of which we are immediately aware of. We think of it as the warm central private region of one’s life. As such, it plays a crucial part in our consciousness (a concept broader than self), in our personality (a concept broader than consciousness) and in our
organism (a concept broader than personality). Thus, it is some kind of core in our
being”.

Rogers (1951) defined self-concept as “an organized configuration of perceptions
of the self which are admissible to awareness. It is composed of such elements as
the perceptions of one’s characteristics and abilities, the precepts and concepts of
the self in relation to others and to the environment, the value quality which is
perceived as associated with experiences, objects, goals and ideas which are
perceived as having positive or negative balance”.

According to Hurlock (1974), “self-concepts are images that people have of
themselves. They are composites of the beliefs they have about themselves – their
physical, psychological, social and emotional characteristics, their aspirations and
their achievements”. The concept of self according to Hurlock has three major
components: the perceptual, the conceptual and the attitudinal. The perceptual
component is similar to physical self-concept that includes the image of one’s
appearance, attractiveness and sex appropriateness of the body and the importance
of the different parts of the body. The conceptual component is similar to
‘psychological self-concept’ which relates to the origin of the individual, his/her
abilities and disabilities, his/her social adjustment and traits of personality. The
attitudinal component refers to attitudes of a person about his/her present status
and future prospects, his/her feelings about his/her beliefs convictions, values, etc.

Each behaviour of an individual, however simple or complex, is influenced by how
he sees himself. Therefore, self-concept is a crucial and important element of
personality and its measurement becomes highly essential. This measurement
helps one to gauge the personality of an individual so as to understand and predict his/her life adjustment and his/her success and failure.

Examination of the different instruments that were developed to measure self-concept reveals that they lack many important components (of self-concept) and hence provide narrow and limited information depending upon the purpose and interest of investigation.

**Description of the self-concept scale**

The self-concept scale consists of 51 statements related to 10 constructs of self-concept covering the three above-mentioned elements of self-concept. The ten constructs are health and sex appropriateness, abilities, self-confidence, self-acceptance, worthiness, present, past and future, beliefs and convictions, feelings of shame and guilt, sociability and emotional maturity. These 51 items are positively and negatively framed items (Appendix-II).
### Table 2: Items Included in the Ten Constructs

<table>
<thead>
<tr>
<th>Sr. No.</th>
<th>Constructs</th>
<th>Item Numbers</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Health and sex appropriateness</td>
<td>6  20 29 32 34 46</td>
</tr>
<tr>
<td></td>
<td></td>
<td>P  P N N P P</td>
</tr>
<tr>
<td>2</td>
<td>Abilities</td>
<td>4  8 12 23 36 38 39 42</td>
</tr>
<tr>
<td></td>
<td></td>
<td>P  P N N P N N P</td>
</tr>
<tr>
<td>3</td>
<td>Self-confidence</td>
<td>6  9 14 16 44</td>
</tr>
<tr>
<td></td>
<td></td>
<td>P  P N N P</td>
</tr>
<tr>
<td>4</td>
<td>Self-acceptance</td>
<td>1  10 17 35</td>
</tr>
<tr>
<td></td>
<td></td>
<td>P  N N N</td>
</tr>
<tr>
<td>5</td>
<td>Worthiness</td>
<td>1  3 19 25 27 41 48</td>
</tr>
<tr>
<td></td>
<td></td>
<td>P  N N P P N P</td>
</tr>
<tr>
<td>6</td>
<td>Present, past and future</td>
<td>18 22 26 31 40</td>
</tr>
<tr>
<td></td>
<td></td>
<td>P  P N N P</td>
</tr>
<tr>
<td>7</td>
<td>Beliefs and convictions</td>
<td>24 47 49</td>
</tr>
<tr>
<td></td>
<td></td>
<td>N  P P</td>
</tr>
<tr>
<td>8</td>
<td>Feeling of shame and guilt</td>
<td>5  13 28 30 50</td>
</tr>
<tr>
<td></td>
<td></td>
<td>N  N N N N N</td>
</tr>
<tr>
<td>9</td>
<td>Sociability</td>
<td>33 37 43 45</td>
</tr>
<tr>
<td></td>
<td></td>
<td>N  P P N</td>
</tr>
<tr>
<td>10</td>
<td>Emotional maturity</td>
<td>11 15 21 51</td>
</tr>
<tr>
<td></td>
<td></td>
<td>N  N N N</td>
</tr>
</tbody>
</table>

Administration

The self-concept scale is self-administering. It can be administered individually as well as to a group. The respondents are to indicate their agreement or disagreement vis-à-vis each statement on a five-point rating scale i.e. “strongly agree”, “agree”, “undecided”, “disagree”, “strongly disagree”.

Scoring

The self-concept scale provides the respondent with five response alternatives to give his/her response viz. “strongly agree”, “agree”, “undecided”, “disagree” and “strongly disagree”. Thus, a score from one to five is obtained for each item. The positive items (as shown in the table, the letter ‘P’ or ‘N’ indicate whether items are positive or negative) are scored five to one for responses “strongly agree”, “agree”, “undecided”, “disagree” and “strongly disagree” respectively, while the negative items are scored one to five for the same response alternatives indicated. All the ratings are then summed up and a total score is calculated.

Reliability

Reliability of the self-concept scale, by split-half method following Spearman-Brown Prophecy formula, was found to be 0.87.

Validity

In order to establish the validity of the scale, the 103 items were given to 50 experts (fourteen psychologists, six social workers, five clinical psychologists and
University teachers, teaching education and psychology) to rate them in terms of their degree of favorableness and unfavorableness on a nine-point rating scale. On the basis of the rating by experts, Q and scale values were determined and sixty items with low Q-values were selected so that the scale values of the items are equally spaced.

The set of sixty items were further administered to a sample of four hundred respondents belonging to different ages, socio-economic status, occupation and sex. Only 341 cases were analyzed. The respondents were asked to indicate their agreement or disagreement with each item on a five-point scale. Two groups were extracted: one, obtaining 25% of highest scores and other 25% obtaining lowest scores. ‘T’ test was worked out on each statement separately. Thus, ‘T’ is an index of discriminability of items.

Homogeneity was also determined statistically for each total construct score was co-related with the total test score and all ten constructs were found to be significantly correlated (< 0.01 level) with the total test score. Thus, the content and construct validity was established.

**Norms**

Mean scores of the ten constructs and total tests were computed separately which are given below in table 3.
Table 3: Mean scores for the Construct and Whole Scale

<table>
<thead>
<tr>
<th>Sr. No.</th>
<th>Constructs</th>
<th>Male</th>
<th>Female</th>
<th>General</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Health and sex appropriateness</td>
<td>21</td>
<td>19</td>
<td>20</td>
</tr>
<tr>
<td>2</td>
<td>Abilities</td>
<td>29</td>
<td>27</td>
<td>28</td>
</tr>
<tr>
<td>3</td>
<td>Self-confidence</td>
<td>18</td>
<td>16</td>
<td>17</td>
</tr>
<tr>
<td>4</td>
<td>Self-acceptance</td>
<td>15</td>
<td>15</td>
<td>15</td>
</tr>
<tr>
<td>5</td>
<td>Worthiness</td>
<td>28</td>
<td>22</td>
<td>25</td>
</tr>
<tr>
<td>6</td>
<td>Present, past and future</td>
<td>17</td>
<td>19</td>
<td>18</td>
</tr>
<tr>
<td>7</td>
<td>Beliefs and convictions</td>
<td>11</td>
<td>11</td>
<td>11</td>
</tr>
<tr>
<td>8</td>
<td>Feelings of shame and guilt</td>
<td>13</td>
<td>19</td>
<td>16</td>
</tr>
<tr>
<td>9</td>
<td>Sociability</td>
<td>14</td>
<td>14</td>
<td>14</td>
</tr>
<tr>
<td>10</td>
<td>Emotional motivation</td>
<td>13</td>
<td>11</td>
<td>12</td>
</tr>
</tbody>
</table>


b) Adjustment Inventory

The Adjustment Inventory was developed by M.N. Palsane (1977) to determine/measure the levels of adjustment of high school and college students of both sexes. This, in turn, would help parents and teachers to better understand the behaviour of the children under their care and help in the development and enrichment of their personality.

Adjustment is a relationship between the individual and his/her environment. According to Parameswaran and Beena (2002), adjustment is a process by which a living organism acquires a particular way of acting or behaving or changes an existing form of behaviour or action. Adjustment, according to Hanni (1972), is a ‘state in which the individual on the one hand and the claims of the environment on
The concept of adjustment was originated by Darwin who used it as adaptation to survive in the physical world. This biological concept of adaptation was borrowed by psychologists and renamed 'adjustment'. Thus, adjustment refers to the individual's compliance to a variety of demands or pressures, which are basically social, inter-personal and intra-personal that influences the personality development of the person (Chauhan, 1983).

According to Lazarus (1969), "adjustment consists of the psychological processes by means of which the individual manages or copes with various demands or pressures".

Adjustment is defined as the continuous process of satisfying one's desires, and it involves many aspects of behaviour. Adjustment also exists as a continuum. At one end, there is the so-called well-adjusted person who, in many respects, is ever changing and ever adapting; while on the other end is the poorly adjusted person, who may show signs of anxiety, aggression or disordered thinking. Such an individual is less adaptive. The distinction between these two ends of the continuum is a difficult one as adjustment is a continuous process.

Freud (1917) described mental health as expressing oneself in love and work. The well-adjusted individual experiences fulfillment in both these areas. Erikson (1968) considered adjustment as a lifelong process. According to him, the resolution of the crises at each successive stage of life defines the mental health of
an individual. Maslow (1970) considered a well-adjusted person in terms of self-actualization. Persons seeking expression and development of their potential to the fullest are said to be self-actualized.

Rogers (1951) speaks of openness to experience and trust in oneself as two dimensions of the adjustment process.

College students have, also, described the well-adjusted person in the following ways:

a) One student mentioned that a well-adjusted person does not resort to work as an escape.

b) Another student stated that a well-adjusted individual is able to form close relationships with a few people and is able to enjoy his independence and solitude.

c) The third view put forth was that even a well-adjusted person can have problems because of his active involvement in life.

Description of each area of adjustment

This Inventory assesses the individual’s adjustment levels in the following five areas:

* Home and family adjustment

The very fundamental area of adjustment is the home. Since an individual is born in a home and has to live his/her lifetime in his home and family,
he/she is faced with many situations and personalities, which call for specific adjustments.

The inventory consists of statements regarding individual home adjustment i.e. his/her relationships with his parents, siblings and their attitude towards him, his/her position in the home, and whether he/she is satisfied with the various characteristics of his/her family. Individuals scoring high tend to be unsatisfactorily adjusted to their home surroundings. Low scores indicate satisfactory home adjustment.

- **Social adjustment**

  Adjustment in social area refers to the person’s relations with other individuals and social institutions. The statements in this area consists of whether the person is very popular, prefers few or more friends, likes to be social and friendly with strangers, is the centre of attraction and life of parties, etc. Individuals scoring high tend to be submissive and retiring in their social contacts. Individuals with low scores are good in social contacts.

- **Personal and emotional adjustment**

  Statements of personal adjustment are related to the personal and emotional poise of people, i.e. whether the person is over-critical, fault-finding or whether he has faith and confidence in himself and others, etc.

  Emotional adjustment covers fluctuations of mood, feelings of guilt, worry, loneliness, daydreaming, excitability, calmness, control of emotions, etc.
This area measures emotional maturity. High score indicates that the person is emotionally unstable. While persons with low scores tend to be emotionally stable.

**Health adjustment**

This area is concerned with the individual’s health problems. It covers whether he/she suffers from any chronic diseases, pains and aches, etc. High scores indicate unsatisfactory health adjustment, low scores indicate satisfactory adjustment.

**Educational Adjustment**

Statements in this area are concerned with his/her education; whether he/she is satisfied with it or not; what improvements he/she wishes to suggest and do; whether he/she wants to pursue higher education, etc. It also covers the students’ relations with the teachers the administrators and also the co-students. High scores indicate difficulties in adjustment in this area, while low scores indicate a better functional relationship.

**Administration**

The inventory is self-administering and instructions are printed on its front cover page. Responses to 375 statements are marked on a separate answer-sheet in the form of “Yes/No/Undecided”. The last option (viz. ‘undecided’) should be avoided as far as possible (Appendix-III).
Scoring

There are five scoring stencils for the five scales. Each one of the answer-sheet should be adjusted with the respective stencil in such a way that the items No. 1 and No. 375 can be seen through the punched holes of the stencils; by counting the cross marks through the remaining punches, a score on a specific scale can be obtained.

Reliability

With a sample of 200 pre-university students (both, male and female), the test-retest with an interval of four weeks, the validity of the various scale, as shown under, is high. Therefore, the test is reliable.

Table 4: Scale Validity

<table>
<thead>
<tr>
<th>Scale</th>
<th>Validity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Home/family</td>
<td>0.83</td>
</tr>
<tr>
<td>Personal/emotional</td>
<td>0.89</td>
</tr>
<tr>
<td>Social</td>
<td>0.85</td>
</tr>
<tr>
<td>Educational</td>
<td>0.96</td>
</tr>
<tr>
<td>Health</td>
<td>0.79</td>
</tr>
</tbody>
</table>

Source: ‘Manual for Adjustment Inventory’ by Palsane, M.N, 1979
Validity

The content validity has been ensured by reference to the other scales of adjustment as well as to the concept of the adjustment in different areas chosen for assessment. Item-analysis was carried out scale-wise on the basis of a statistical index of item-total consistency (Chi-square). This is an index of item validity. It can therefore be said that the different scales of the inventory are internally consistent and homogeneous. However, data on cross-validation and independent validation of entire scales are not available at present.

c) Social Competence Scale (SCS)

In order to determine the college student's Social competency, the social competence scale (SCS) developed by Sharma, Shukla and Shukla (1992) was used. Social Competence is a very important aspect of modern civilization and as such considered to be an essential attribute of the member of a progressive modern society.

The cultural plurality and societal diversity of India provide ample opportunities to Indian college students for varied interpersonal interactions and the acquisition of high level of social competence. However the success of developing social competence depends largely upon the kind of platform and upbringing the parents and the other social agents provide them with. Infact, "a fundamental need of young people is for a few stable supportive relationships with caring; mature adults who can help them access resources, encourage them to persist in difficult
situations such as schooling and provide support and ethical guidance” (Takanishi, 1997). Social competence has been defined as the social ability and interpersonal skill of an individual in effectively meeting a person-situation interaction or successfully dealing with an individual environmental factors (Eisler, 1970).

Despite great importance and relevance of social competence to redefinition of modern society, relatively little attention has been paid in its measurement. The two social competence scales by Jones (1974) and Kohn (1977) have been found inappropriate for Indian sample because of their non-conformity with Indian social system, social norms and cultural differentiation. Even Jones (1981) attempts to revise Rochester Adaptive Behaviour Inventory (RABI), which claims to measure social competence on 12 dimensions and Kohn’s (1977) Two factor model: Factor I:- Interest-participation v/s Apathy withdrawal, and Factor II:- Co-operation-compliance v/s Anger-Defiance, hardly provide a good measurement of social competence under Indian social system and cultural contents.

Therefore, Sharma, Kiran and Shukla (1992), came forward to provide appropriate, relevant and valid measure of social competence for the Indian sample. In the development of the present Social competence scale, the Investigators employed the concept and constructs of Kohn’s Social Competence Scale and incorporated the Indian social norms and values in such a way as to get expression of the composite culture on India and meet the need and demands of social skills and interpersonal behaviour of Indian social settings and cultural patterns.
The present Social Competence scale (SCS) designed for Indian students of 15 years and above of both sexes, consist of 50 items (statements) measuring 18 factors of social Skills and behaviour. Each statement has to be evaluated on a Five Point Scale ranging, from “very high”, “High”, “Average”, “Low”, “Very Low”. The items in the scale have been randomly presented as seen in the table measuring 18 factors on social skills and behaviour (Appendix-IV).

**Technical Characteristics of SCS:**

**Reliability:** The coefficient of temporal stability employing Test-Retest method with an interval of 20 days has been estimated to be $r_{tt} = 0.56$ whereas the coefficient of inter-rater reliability has been found to be $r_{rr} = 0.67$.

**Validity:** Apart from the item-validity as analyzed, the English version of SCS has been validated against Kohn’s Social Competence Scale and predictive validity to the extent of $r = 0.72$ was obtained. Further, the English and Hindi version of the Social Competence Scale was found to be correlated to extent of $r = 0.84$.

The Social Competence Scale has also been validated against Teacher’s Rating on a five Point Scale of the normative pupils of Grade VIII and a coefficient of correlation to the extent of $r = 0.79$ was obtained between Teacher’s Rating and Pupils’ total score of Social Competence Scale.
Inter-Componental Relationship and Factor Analysis:

i) **Co-relational Analysis:** Correlation Matrix for 19 components of the Social Competence Scale was prepared employing method of Pearson’s Product Moment Coefficient of Correlation for identifying inter-componental validity. All the coefficients of the correlation of 171 indices, have been estimated positive ranging from $r = 0.702$ to $r = 0.102$. Out of these 171 indices, 108 have been found significant at 0.01 level of confidence whereas 27 have been estimated significant at 0.05 level. Thus, the inter-component functional validity of the Social Competence Scale is high. The significant positive inter-componental relationship as well as the correlations between its various components and the composite social competence has high functional validity, which speaks of its functionality and applicability with confidence. Not only the composite Social Competence Scale, but also each of its 18 components measures the various dimensions of social competence. Thus, social competence scale measures what it purports to measure.

ii) **Factor Analysis:** The Centroid Method of Factor Analysis was employed to diagnose the strength and weakness of each component and identify important components that contribute significantly, as the inherent variance of social competence. The 18 components were transformed into Factor Matrix that enabled to extract five factors of social competence as shown herein under with their relative order of significance and weight ages:
Table 5: Factors of Social Competence with Order and Weightage

<table>
<thead>
<tr>
<th>Sr. No.</th>
<th>Name of Factor</th>
<th>Percentage of Variance</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Pro-social Attitude</td>
<td>70.22</td>
</tr>
<tr>
<td>2</td>
<td>Social Competition</td>
<td>21.09</td>
</tr>
<tr>
<td>3</td>
<td>Social Leadership</td>
<td>6.47</td>
</tr>
<tr>
<td>4</td>
<td>Social Tolerance</td>
<td>2.20</td>
</tr>
<tr>
<td>5</td>
<td>Social Maturity</td>
<td>0.02</td>
</tr>
</tbody>
</table>

Thus, the Social Competence Scale is highly standardized and ensures greater significance and wider application and the measurement of social competence among the Indian children who display “unity in diversity” in their social norms and cultural values.

d) Deo-Mohan Achievement Motivation (n-Ach) Scale:

The Deo-Mohan Achievement Motivation (n-Ach) scale was developed by Deo and Mohan (1985) to measure achievement motivation in a simple and uncomplicated manner unlike projective tests that are time-consuming in administration and complicated in scoring procedure. This scale measures achievement motivation in general and also in particular fields like achievement motivation in school, college, university, etc.

The term ‘motivation’ refers to any organismic state that mobilizes activity that is in some sense selective or directive (Lahey, 1983). Achievement motivation, which is the acquired tendency and is one of the most important social needs, is
defined as a disposition or the need to strive for success in competition with others with some standard of excellence set by the individual (McClelland, 1953).

Deo-Mohan’s Achievement Motivation (n-ach) scale is based on the following three factors:

- **Academic Factors**: The academic factors that are taken into consideration are: academic motivation, need achievement, academic challenge, achievement anxiety, importance of grades/marks, meaningfulness of daily college tasks, relevance of college or students’ future goals, attitude towards education, work methods, attitude towards teachers, warm interpersonal relations, concern for the individual and implementation of educational objectives.

- **Factors of General Field of Interest**: The factors of general field of interest that are taken for consideration are: competition in curricular and co-curricular activities viz. sports and athletics, fine arts and dramatics, dancing, music, painting (aesthetics), debates and orations, boating, mountaineering or hill climbing or hiking, cross-country races, domestic crafts for girls e.g. cooking, embroidery etc, reading and writing, and experimentation or any act of creation.

- **Social Interests**: Those factors related to social interests that are taken into consideration are organizing and participating in social activities and arranging exhibitions and social functions.
Scoring

The scale consists of 50 items. Of these, 13 are negative and 37 are positive. The responses to the statements are scheduled or a five-point rating scale (Appendix-V) in the form of either “Always”, “Frequently”, “Sometimes”, “Rarely” and “Never”. Scoring of the responses is done by using two stencil keys, one to be used (placed) for the positive items and the other for the negative ones. The positive items carry the weightages of 4, 3, 2, 1 and 0 respectively for the categories “Always”, “Frequently”, “Sometimes”, “Rarely” and “Never”. The negative items are scored with weightages of 0, 1, 2, 3 and 4 for the above-mentioned categories. The total score is the summation of all the positive and negative items scored. The minimum score that can be obtained is zero while the maximum can be 200.

Reliability

The Test-Retest method was used to obtain the reliability coefficient of the scale. The administration of the scale was repeated with different sets of sample on several occasions. The following coefficient of reliability was found to be sufficiently high and found to be significant at 0.01. For the mixed group of 51 (with the interval of 4 weeks, $r = 0.69$). For a male sample with the interval of 5-6 weeks the coefficient correlation, $r$ was found to be 0.67 and for the females sample with the interval of 5-6 weeks, the coefficient correlation was 0.78.
Validity

The scale was used for validating the projective tests of achievement motivation. The coefficient of correlation between the scale and the projective test was observed to be 0.04 which speaks, for the validity of the scale as also the validity being of concurrent nature. The scale's scores were also correlated with the scores obtained by administering the Aberdeen Academic Motivation Inventory of Entwistle (1968) yielding a coefficient of correlation as 0.75 for a mixed sample of 93. This correlation is high enough to establish the validity of the scale.

Norms

The scores can theoretically range from 0 to 200. Ordinarily, an obtainable score will be in between. For the interpretation of the score, norms are presented in three forms: Frequency distribution with mean and standard deviation, percentile norms and T-Scores. (Source: ‘Manual for Deo-Mohan Achievement Motivation (n-Ach) Scale’ (1985). National Psychological Corporation, Agra).

Procedure

To get a clear picture regarding the number of students studying in and around Goa, the researcher personally visited Goa University and collected a list of colleges affiliated under Goa University jurisdiction. Giving equal weightage to North and South districts of Goa, the researcher selected 12 colleges randomly and consulted the respective principals for further data collection.
In order to collect the relevant data, four tools namely self-concept scale, adjustment inventory, social competence scale and Deo-Mohan achievement motivation scale were employed. They were administered on the selected sample individually and in some cases in groups of five. Prior permission was sought from college authorities and adequate arrangement and proper testing environment/conditions were maintained for the administration of the measurement and collection of data. Well-lit classrooms with proper ventilation and minimum disturbance were selected. Rapport was established between the individual/group of subjects and the researcher, in order to make the subjects comfortable and to enlist their co-operation. The data collection for the present study was done in three sessions, as appearing hereunder.

<table>
<thead>
<tr>
<th>Sessions</th>
<th>Tools Administered</th>
</tr>
</thead>
<tbody>
<tr>
<td>Session I</td>
<td>Socio-demographic data sheet, and Self concept scale</td>
</tr>
<tr>
<td>Session II</td>
<td>After 5 days’ gap after the first session, Social competence and achievement motivation scales were administered</td>
</tr>
<tr>
<td>Session III</td>
<td>After 5 days’ gap of second session, Adjustment scale was administered</td>
</tr>
</tbody>
</table>

The researcher explained the purpose of the project and distributed the proforma to record personal information. Following the general instructions, four tests were administered as shown in the above table. Every subgroup of the test group read the instructions individually and responses were promptly given. No time limit was set, but they were advised to answer promptly. Guarded and continuous supervision was provided so as to assist the subject/s to complete the tests.
difficulty and doubt vis-à-vis the test were adequately dealt with. After the completion of the test, the subjects were requested to read through the responses to detect any lapse while responding to the test material.

Finally, the researcher personally checked the answer sheets and then collected the test booklets/answer sheets and proforma from the subjects. Subject/s were thanked and ushered out of the testing room. The correct answers were scored and entered on the scoring sheet provided on the answer sheet and total scores were entered and then subjected to statistical analysis. The results of the test were treated with confidentiality.

Once the data sheets were collected, they were scored, coded and a master chart was prepared and fed to the computer. The statistical methods applied and obtained results are presented in the next chapter.