CHAPTER - III

METHOD
CHAPTER - III

METHOD

The main objectives of Phase-I of the present study as stated earlier (p. 17) are:

1. To study the relevance of motives, personality, and intelligence, from the viewpoint of sociometric status;
2. To study whether the correlates of sociometric status remain the same for pre-adolescent and adolescent stages of development;
3. To study whether the correlates of sociometric status remain the same for different sociometric criteria; and
4. To study whether the measures of sociometric status derived from different sociometric criteria are functionally equivalent.

It goes without saying that in all the sciences, including psychological and educational sciences, empirical verification of the proposed hypotheses is dependent, firstly, on the reliable measurements of the variables of ultimate interest; and, secondly, on the methods and procedures employed for deriving conclusions from such measurements. This required:

(a) selection of an adequate sample,
(b) selection of appropriate tools that could be profitably used for reliable measures, and
(c) selecting suitable statistical techniques for analyzing the data.

Thus, it is pertinent to describe the sample, the specific tools, and the methods and procedures employed in completing
the research being reported.

The description of the sample providing data for testing the proposed hypotheses of Phase-I is given in subsequent pages. This chapter also describes the tools which have been used for collecting data. In addition, the information concerning administration and scoring of the tests used is also given in subsequent pages. Moreover, the procedure of analysis has also been discussed in the subsequent pages.

SAMPLE

The present study was carried out at two age levels, comprising pre-adolescent girls and adolescent girls. The age in the pre-adolescent sample ranged from 11 to 13 years (Mean: 12.37, S.D.: 0.86); whereas, in the adolescent group, the age ranged from 15 to 17 years (Mean: 16.30, S.D.: 0.94). The detailed description about the total number of subjects in the two age groups is given on the next page;
TABLE 3.1

Details of the Subjects of Pre-adolescent and Adolescent Age Groups

<table>
<thead>
<tr>
<th>Grade</th>
<th>Pre-adolescent Age Group</th>
<th>Number of Subjects</th>
</tr>
</thead>
<tbody>
<tr>
<td>VII</td>
<td>44</td>
<td></td>
</tr>
<tr>
<td>VII</td>
<td>33</td>
<td></td>
</tr>
<tr>
<td>VII</td>
<td>38</td>
<td></td>
</tr>
<tr>
<td>VII</td>
<td>35</td>
<td></td>
</tr>
<tr>
<td>XI</td>
<td>37</td>
<td></td>
</tr>
<tr>
<td>XI</td>
<td>46</td>
<td></td>
</tr>
<tr>
<td>XI</td>
<td>45</td>
<td></td>
</tr>
<tr>
<td>XI</td>
<td>43</td>
<td></td>
</tr>
</tbody>
</table>

The students newly admitted to the classes were excluded from the study because they had a chance of being rejected or ignored by the established group simply because they were strangers to the already-existing group (Frymier, 1969; and Kakkar, 1971).

The rationale for limiting the present study to females was mainly convenience, besides the need to control the sex variable. Moreover, from the viewpoint of stability of the social acceptance level, it was decided not to consider co-educational schools, as many
investigators (Bradley and Newhouse, 1975; Gronlund, 1955; and Kundu and Maiti, 1985) have found the unsuitability of cross-sex choices. The subjects were contacted through teachers and principals who were well known to the investigator, who is working as educational and vocational guidance counsellor in the Directorate of Education, Delhi Administration, Delhi (India). It helped in establishing rapport with the subjects which is essential for data collection. From this perspective, the sample of the present investigation is incidental.

With a view to win the confidence of the subjects, they were told that the information was being collected purely for research purpose and would be kept confidential. The assurance seems to have gone a long way in establishing psychological rapport, since a large number of subjects contacted the investigator later on and enquired about their performance on the tests used.

**TESTS**

The following tests were used:

(A) Sociometric Status Measure;
(B) Hindi version of Junior-Senior High School Personality Questionnaire, Form A (Kapoor and Mehrotra, 1967);
(C) Culture Fair Intelligence Test: Scale 2, Form A (Cattell and Cattell, 1960);
(D) Hindi version of School Motivational Analysis Test (Singh, 1975); and
(E) Junior Personality Inventory (Mohan, Singh, and Kalra, 1968).
(A) **Sociometric Status Measure**

The field of usefulness of sociometry is wide, and it has become well established as a technique which can be easily applied and gives a great deal of information about individuals and groups in a demonstrable form. Investigations dealing with peer acceptance and peer relations have made use of sociometric test.

A sociometric test is designed to give an objective picture of the relationships existing among the members of any group of people. Its objective is to bring into light the 'attraction' or 'repulsion' among the individual members. The usual way of measuring interpersonal attraction in a group is that of asking each member to name the other member or members, whom he 'likes' or 'dislikes'. Since such a direct question is usually rather threatening, researchers are more likely to ask who are 'preferred companions' for a particular activity. The number of times each group member is chosen by others is an index of his being accepted or attracted. Similarly, each individual can be rated in terms of the extent to which he is 'disliked' or 'ignored'. More specifically, the purpose of most sociometric studies has been to assess the degree to which a child's peers wish to have some positive, friendly, contact with him. These may be considered as studies of social acceptance or popularity. Sociometric tests are also used to assess the extent to which a child is ignored by the peer group, is disliked by it, is respected, is seen as a 'powerful' person, or is seen as a leader. Thus, as
professed by Moreno (1953, p. 92), a sociometric test is only a favourable and strategic first step for the more thorough investigation of the depth-structure of groups. Bain (1943, cf. Moreno, 1960, p.viii) emphasized that "sociometry is, and probably will remain, a generic term to describe all measurements of societal and interpersonal data".

It can be noted from earlier studies that sociometric data have been obtained by using various sociometric instruments. There are several procedures, but they have one thing in common; the fact that individuals are asked to nominate from among other members of their group, the members with whom they would most (or least) like to live, go on a mission, or carry out some project (Moreno, 1953). Likewise, Asher and Hymel (1981) have noted, "Assessment approaches vary considerably in their procedures, questions they are best suited to address, and in their limitations, but each has a contribution to make" (p.2).

Thus, to select an appropriate sociometric status measure, several important decisions have to be made concerning the following points:

(i) Sociometric technique to be used, and
(ii) Criteria to be used.

A review of studies (cf. Moreno, 1960; pp. 333-354; Sharma, 1970, pp. 46-51) reveals that different sociometric techniques have been used by different investigators to operationally define 'popularity' or 'acceptance'. Partial rank-order scale (three limit versus five limit choices for each criterion), paired comparison, unlimited choices,
behavioural observations in natural settings, and sociometric rating scales are the most commonly used techniques. The decision to use 'sociometric rating scale' in the present study was based upon the findings of Thompson and Powell (1951), Witroyal and Thompson (1953), and Sushma's (1979) investigations. Thompson and Powell (1951) concluded that as a research instrument, the sociometric rating scale procedure has definite merits not potentially present in the partial rank-order scale. More recently, Sushma (1979, p.82) concluded that the sociometric rating scale, in comparison to the other commonly used sociometric techniques, is comparatively a better tool for identifying reciprocally meaningful friendships and sociometric status.

After deciding about the sociometric techniques to be used, the researcher is faced with another question concerning the sociometric criterion to be employed. Sociometric questions asked, or the nature of the sociometric criterion, makes a very considerable difference. Generally, any activity in which subjects engage or potentially engage with other persons may become a test criterion. A wide variety of criteria have been employed by different investigators. The criteria employed range from "chatting with others" (Yablonsky, 1952; cf. Moreno, 1960) to "confiding" in others (Bassett, 1944; cf. Moreno, 1964). Sitting together, choice of room-mates, choice of companions for meals, walking together, working together, playing together, visiting other families, are typical examples of this class of sociometric test criteria. In many studies (Vreeland and Corey, 1935-36; Wherry and Fryer, 1949; Izard, 1960; and Pierce, 1970), friendship configuration has been
studied by using a general criterion: 'Who are your best friends?'. In such like criteria, the term 'friend' is very much ambiguous and subjective. The fact that investigators have used such varied criteria in their sociometric studies points up the fact that social status is a multidimensional, rather than a unidimensional, aspect of group structure. Therefore, the choice of a particular sociometric criterion is of great significance. The findings of a particular sociometric study must be interpreted in the context of the particular sociometric criterion that is involved.

Moreover, in the light of numerous criteria used by earlier investigators, it becomes difficult to choose the sociometric criterion to be used. For most school children 'playing together during recess' would probably be suitable, but for workers in a certain industry 'working at the same bench' would be more appropriate. Thus, for the present study, the investigator selected only those areas in which members have, or could have, real opportunity for associating and interacting with each other. These areas were pertinent to the exact group. These areas were made the basis of a question in the sociometric test and are called sociometric criteria.

The next problem connected with the design of a sociometric test relates to the number of criteria to be used. Fixation of the number of criteria is, however, rather difficult. It can be seen from the related studies that criteria used have ranged in number from one to eight.
or even more. Neither experimental evidence nor rational explanation is given to justify the number. However, it has been suggested that the criteria should cover wide areas and different aspects of life within the group (Northway, 1953, p.3). Thus, an attempt should be made to include only those criteria in which subjects have, or could have, real opportunity for interacting with each other. Moreover, they must be pertinent to the group concerned.

In addition, still another decision must be made with regard to whether sociometric criteria should include either the 'positive' nominations, or the 'negative' nominations, or 'both'. A methodological consideration of some importance in sociometric measurement concerns the sign of the expressed preferences. The individual might be asked to make a positive choice, or a negative one to indicate with whom he would most like to engage in a certain activity; or whom he would least like as a partner. In sociometric research, the primary focus has been on positive choices (Bjerstedt, 1956, p.54); this trend stemmed from Moreno's orientation towards positive relationships and his interest in the reorganisation of groups in terms of these positive choices.

There has been some controversy regarding the relative merits of rejection reports as compared with positive choices (Bjerstedt, 1956, p.53), and certain objections have been made to the use of rejection reports (Northway, 1952, p.5). However, little systematic research has been done on this question, and the general tendency has been for researchers to use acceptance rather than rejection measures.
Asking individuals to indicate those whom they would least prefer as associates is generally avoided. The omission of negative sociometric nominations from past research was often made on ethical grounds by investigators who were reluctant to have children make what are thought to be pejorative decisions about their peers. It has been pointed out (Northway, 1953) that the use of such criterion has resulted in expressed resentment among group members. Cronwell (1958; cf. Evans, 1962; p.14) found that asking for 'rejection' makes the students repellent and repugnant, causing bad feelings in the mind and leaving a sense of inward guilt. Rejection was more difficult and less pleasant than choosing. At the same time he recognised that the inclusion of rejections as well as choices gave a truer picture of the group and was fairer to the great majority who, though not chosen, were also not rejected. It also made it possible for something to be done to help the people who, as a result of the test, were found to be rejected. To be rejected is often more important in its effects on the individual concerned than to be chosen.

Peery (1979) recently demonstrated the importance of using both positive and negative dimensions in predicting pre-schoolers' social comprehension skills (Gottman, 1977).

Keeping in view what has been stated in the preceding paragraphs, the following three sociometric criteria, involving both positive and negative nominations, were employed:

(1) Sitting in the classroom,
(2) Playing together, and
(3) Working together in craft period.
These three criteria were selected on the basis of observation of the classes. They were considered to be the ones common to all the sections; familiar to all members of the group; equally available for all members to participate; and least influenced by extraneous environmental factors.

For measuring sociometric status, three sociometric rating scales concerning three sociometric criteria were employed. The subjects were asked to rate each of the pupils from the group to which they belong on the five points of the scale in relation to three sociometric criteria separately. The five points of the scale ranged from:

(i) I would always like to sit next to her in the classroom;
(ii) I would sometimes like to sit next to her in the classroom;
(iii) My sitting with her in the classroom makes no difference to me;
(iv) I would not like to sit next to her in the classroom; and
(v) I would not like at all to sit next to her in the classroom.

Similar scales were prepared for the other two sociometric criteria. Pupils were asked to make separate choices for different criteria.
The Junior - Senior High School Personality Questionnaire (HSPQ) is a suitable aid for teachers, guidance specialists, and for general clinical and research use. It gives an objective analysis of the individual personality. The HSPQ is a standardized test that can be given within a class period, to single individual or in groups, to yield a general assessment of personality. The questionnaire measures fourteen distinct dimensions of personality which have been found by psychologists to come near to covering the total personality. Each of the fourteen dimensions of personality measured by the HSPQ has a technical name, and an alphabetical symbol for convenience of rapid reference.

Each one of the fourteen dimensions of personality measured by the Junior - Senior High School Personality Questionnaire has been designated as a distinct bi-polar dimension ranging from low to high as follows:
<table>
<thead>
<tr>
<th>Alphabetic Designation of Factors</th>
<th>Low Sten Score Description</th>
<th>High Sten Score Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>Reserved</td>
<td>Warm hearted, outgoing</td>
</tr>
<tr>
<td>B</td>
<td>Less intelligent</td>
<td>More intelligent</td>
</tr>
<tr>
<td>C</td>
<td>Affected by feelings</td>
<td>Emotionally stable</td>
</tr>
<tr>
<td>D</td>
<td>Undemonstrative</td>
<td>Excitable</td>
</tr>
<tr>
<td>E</td>
<td>Obedient</td>
<td>Assertive</td>
</tr>
<tr>
<td>F</td>
<td>Sober</td>
<td>Enthusiastic</td>
</tr>
<tr>
<td>G</td>
<td>Disregards rules</td>
<td>Conscientious</td>
</tr>
<tr>
<td>H</td>
<td>Shy</td>
<td>Adventurous</td>
</tr>
<tr>
<td>I</td>
<td>Tough-minded</td>
<td>Tender-minded</td>
</tr>
<tr>
<td>J</td>
<td>Zestful</td>
<td>Circumspect Individualism</td>
</tr>
<tr>
<td>O</td>
<td>Self-assured</td>
<td>Apprehensive</td>
</tr>
<tr>
<td>Q2</td>
<td>Socially group-dependent</td>
<td>Self sufficient</td>
</tr>
<tr>
<td>Q3</td>
<td>Uncontrolled</td>
<td>Controlled</td>
</tr>
<tr>
<td>Q4</td>
<td>Relaxed</td>
<td>Tense</td>
</tr>
</tbody>
</table>

The reading level of the test is adapted to ages 11 or 12 through 18 years, and the scoring can be done rapidly by a stencil key.

For these fourteen personality factors, the indices of test-retest reliability after a time gap of six months have been reported to be ranging from .53 to .69, while the coefficients of construct validity range from .58 to .77. In the Indian setting, Upmanyu and Upmanyu (1982)
reported indices of test-retest reliability ranging from .50 to .76. Guinouard and Rychlak (1962), Hrabal (1975), Sushma and Upmanyu (1979), Misra (1980), Upmanyu and Upmanyu (1982), and Shukla (1983) made use of high school personality questionnaire to study personality correlates of sociometric popularity in elementary school children.

(C) Culture Fair Intelligence Test : Scale 2, Form A
(Cattell and Cattell, 1960)

The Culture Fair Intelligence Test (CFIT) aims at singling out the most consistent core of basic mental capacity, which is free from the accidental circumstances of better or poorer schooling, social class etc. The CFIT, Scale 2, Form A which was used in the present study operates over 8 through 14 years. The scale consists of two forms A and B.

Each form consists of four sub-tests:

(i) series,
(ii) classification,
(iii) matrices, and
(iv) topology.

The scores on these four sub-tests are combined to give a single index of general mental ability and each having a substantial 'g' saturation. Moreover, the scale does not depend on any one type of sub-test. It avoids the construction error of 'putting all its eggs in one basket' and, instead, utilizes four designs of proved validity, thus eliminating a large single 'specific' from the score. The test, therefore, deals with the core of general 'relation education capacity'
which many researchers have shown to be (a) largely inborn, (b) a relatively constant characteristic for the individual, and (c) operative in quite different fields of content, e.g. verbal, numerical, spatial, and social skills (Cattell and Cattell, 1960; p.5).

The number of items and time allotted to each sub-test are as follows:

<table>
<thead>
<tr>
<th>Sub-tests</th>
<th>Number of items</th>
<th>Time allotted</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Series</td>
<td>12</td>
<td>3 minutes</td>
</tr>
<tr>
<td>2. Classification</td>
<td>14</td>
<td>4 minutes</td>
</tr>
<tr>
<td>3. Matrices</td>
<td>12</td>
<td>3 minutes</td>
</tr>
<tr>
<td>4. Topology</td>
<td>8</td>
<td>2.30 min.</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>46</strong></td>
<td><strong>12.30 min.</strong></td>
</tr>
</tbody>
</table>

The test has been reported to be reliable as well as valid. Studies in India (Rao, 1965; Hundal, Sudhakar, and Sidhu, 1972; Sushma and Upmanyu, 1979 have also found reliability coefficients comparable to those reported by the authors.

The test is also reported to have been used successfully in a number of countries. However, a reviewer (Tannenbaum, 1965) has added a note of caution by expressing his doubts regarding the 'g' saturation of all the four sub-tests and also about the evidence concerning the claim of outstanding freedom from cultural effects of this test.
Inspite of all this, studies have shown that the test is a dependable measure of general intelligence.

(D) **School Motivational Analysis Test**

The Hindi version of Cattell's School Motivational Analysis Test prepared by Singh (1975) was used for obtaining different measures pertaining to motives. This test attempts to measure ten psychologically meaningful unitary motivation systems, established by comprehensive and objective factor-analytical research. This covers person's interests, drives, and the strength of his sentiment and value system. Out of these 10 dynamic dimensions, 5 are 'ergs' and the other 5 are 'sentiments'.

The description of the ten dynamic structures, as given by the authors, follows:

<table>
<thead>
<tr>
<th>Erg or Sentiment</th>
<th>Title</th>
<th>Symbol</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sentiment</td>
<td>School-sentiment</td>
<td>Ss</td>
<td>Amount of development of interest in school;</td>
</tr>
<tr>
<td>Sentiment</td>
<td>Home</td>
<td>Ho</td>
<td>Strength of attitudes attaching to the parental home;</td>
</tr>
<tr>
<td>Erg</td>
<td>Fear</td>
<td>Fr</td>
<td>Level of alertness to external danger;</td>
</tr>
<tr>
<td>Erg</td>
<td>Narcism</td>
<td>Nr</td>
<td>Level of drive to sensuous, self-indulgent satisfaction;</td>
</tr>
<tr>
<td>Sentiment</td>
<td>Super-ego</td>
<td>Se</td>
<td>Strength of development of conscience;</td>
</tr>
<tr>
<td>Sentiment</td>
<td>Self-concept</td>
<td>Sc</td>
<td>Level of concern about self-concept, social repute, and more remote standards;</td>
</tr>
<tr>
<td>Erg</td>
<td>Mating</td>
<td>Mt</td>
<td>Strength of normal heterosexual or mating drive;</td>
</tr>
<tr>
<td>Erg</td>
<td>Pugnacity</td>
<td>Pg</td>
<td>Strength of destructive and hostile impulses;</td>
</tr>
<tr>
<td>Erg</td>
<td>Assertiveness</td>
<td>As</td>
<td>Strength of the drive of self-assertion and mastery;</td>
</tr>
<tr>
<td>Sentiment</td>
<td>Profectiveness</td>
<td>Pr</td>
<td>Strength of drive for protectiveness.</td>
</tr>
</tbody>
</table>
Each of these dynamic structures is measured by four devices (sub-tests):
(1) uses,
(2) paired-words,
(3) information, and
(4) estimates.

These four sub-tests can be used to derive the following three types of score concerning each motive:

(a) Integrated or conscious motivation scores obtained from sub-tests concerning paired-words and information;
(b) Unintegrated or unconscious motivation scores obtained from sub-tests concerning uses and estimates; and
(c) Total motivation scores obtained from all the four sub-tests.

Thus, one can either use two scores (unintegrated and integrated) for each of the ten dynamic dimensions, or integrated and unintegrated scores can be added to yield a simple total motivation score for each of the ten dynamic dimensions.

The test has been used in India and found useful for research purpose. More recently, investigations of Sushma (1979), Pahwa (1980), and Upmanyu and Upmanyu (1982) with school children, have revealed fairly satisfactory reliability coefficients of different motives.
Junior Personality Inventory

Following Eysenck's theoretical framework concerning conceptualization of personality, Mohan, Singh, and Kalra (1968) developed Junior Personality Inventory (JPI) intended to measure two most important personality factors:

1. Extraversion,
2. Neuroticism.

Indeed, Eysenck in a large number of factor-analytical studies, has found evidence for these two most important personality factors. Extraversion, as opposite of introversion, refers to outgoing, uninhibited, social proclivities of a person. 'Neuroticism' refers to general emotional lability of a person, his emotional overresponsiveness, and his proneness to neurotic break-down under stress. The two dimensions are conceived of as independent of each other. Apart from extraversion and neuroticism, the inventory also yields a score which is indicative of faking tendency or how seriously the subject has worked.

JPI consists of 68 items and each item can be responded to in either of the two ways: 'Yes' or 'No'. Out of these 68 items, 34 items are meant for extraversion, while another 34 items are meant for neuroticism. These 34 items meant for extraversion and neuroticism are further classified into two sets of 17 items each i.e., Na, Nb, and Ea, Eb. This was done on the assumption that two sets of items of neuroticism and extraversion refer to parallel forms of the same measure.
The authors recommended that if the difference in scores on the two sets exceeds 5, the responses are to be considered with caution. In the present study, such cases were ignored. Numerous research workers (Mohan and Menon, 1968; Mohan and Sehgal, 1968; Mohan and Sethi, 1968; Mohan and Purang, 1969; and Mohan and Raman, 1971) have found the inventory to be fairly reliable and valid.

**Administration and Scoring of Tests**

The tests were administered in the following order:

(i) Sociometric Rating Scale: First Criterion;
(ii) High School Personality Questionnaire, Form A;
(iii) School Motivational Analysis Test;
(iv) Sociometric Rating Scale: Second Criterion;
(v) Culture Fair Intelligence Test: Scale 2, Form
(vi) Junior Personality Inventory; and
(vii) Sociometric Rating Scale: Third Criterion.

The tests were administered in four sessions. In the first session, the sociometric rating scale pertaining to first criterion (sitting in the classroom), and high school personality questionnaire were administered with 15 minutes rest between the two tests. Similarly, in the second session, sociometric rating scale pertaining to second criterion (to play with) and school motivational analysis test with sufficient rest between the two tests were administered. Furthermore, culture fair intelligence test was administered in the third session. Finally, in the last session, junior personality inventory and sociometric rating scale concerning
third criterion (to work together in the craft period) were administered. The four sessions were arranged to avoid the influence of fatigue and maintain the interest of the students.

Specific research group generally comprised fifteen to twenty subjects. As it happens many a time in psychological research, collection of data was not very easy. Lengthy time required for the administration of tests, and sometimes lack of research consciousness on the part of the subjects, tended to make it really tedious at times. Sincere efforts, however, were made to establish 'rapport' with the subjects in order to elicit reliable and authentic information. Subjects were told that the information was being collected purely for research purpose. They were also assured that the information to be collected would remain strictly confidential and presented only in a form in which no person could be identified. The promise of privacy appeared to have gone a long way in establishing psychological rapport, since a large number of subjects contacted the investigator later on and enquired about their performance in the tests used. Co-operation of various principals and teachers also helped in drawing out reliable information from the subjects.

Administration and scoring of all the tests, except sociometric rating scale, were done, following the instructions given in the respective test manuals. In case of sociometric rating scale, however, the following instructions were given:

"In the school, you interact with your classfellows in different situations. You would like to interact more with
some of the classmates and you would not like at all to interact with some other classfellows. This test is designed to know your choices for interaction with your classfellows. This is not a test of ability and there is no pass or fail on this test. Your choices would be kept strictly confidential, and in no way this is going to influence your performance in the school.

There are three social-interactional situations:

(i) sitting in the classroom,
(ii) playing together, and
(iii) working together in the craft period.

With each situation, a list of students of your class is attached. You are to rate each member of your class on the five points of the scale, separately for each social-interactional situation. If you always wish to sit with someone in the class, please put a mark (✓) in the column labelled as 1, before the name of that particular student. Moreover, if you sometimes wish to sit with someone in the class, please put a mark (✓) in the column labelled as 2. Further, if your sitting with someone in the class makes no difference, please put a mark (✓) in the column labelled as 3. In addition, if you do not like to sit with someone in the class, put a mark (✓) in the column labelled as 4. Finally, if you do not like at all to sit with someone in the class, put a mark (✓) in the column labelled as 5. You are requested to give your choice for each member of the class. The same procedure is to be followed for the other two social-interactional situations.
If any of the subjects indicated that he did not understand, the investigator repeated the appropriate part of the instructions.

For the purpose of scoring, the choices of the subjects were scored on a continuum ranging from 5 to 1. For the purpose of comparison across different grades/sections, the sociometric status score of each subject was divided by the number of subjects in the particular group. Here, it is pertinent to emphasize that a higher sociometric status score stands for popularity, while low sociometric status score reveals rejection. The sociometric status scores of the subjects were obtained for all the three sociometric criteria separately.

ANALYSIS

The analysis was carried out separately for pre-adolescent and adolescent groups. For each subject, 30 types of score were available. These were:

1. Sociometric status scores on the three sociometric criteria;
2. Scores of 14 personality factors and 10 motives;
3. Scores on neuroticism and extraversion; and
4. Scores on measure of general intelligence.

In view of the objectives of Phase I of the present investigation, the relationship between the measured variables, was studied, both by correlational technique and factor analysis. The results reached with the help of these statistical operations are discussed in the chapter concerning results and discussion.
Comparison of Extreme Groups (‘Populars’ versus ‘Rejectees’)

Keeping in view the sociometric status scores concerning different sociometric criteria, two groups were selected to form 'populars' and 'rejectees' separately for each group and sociometric criterion. The individuals falling above P75 were termed as 'populars' whereas, those below P25 were labelled as 'rejectees'.

The two groups of 'populars' and 'rejectees' were compared in relation to their scores on different measures. This was done by making use of the t-test of significance.