CHAPTER 4

METHOD AND PROCEDURE
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In the previous chapters we have attempted to explain the student behaviour from social and psychological points of view. We have also given special attention to explain as to what we mean by 'indiscipline' and how it manifests itself when the factors intrinsic in the students' personality and prevalent in his external world make him to behave in a particular undesired way. In the preceding chapters we have also come across a definite standpoint that all students are not bad, and as such we can not expect that the disciplined and indisciplined students possess the same personality factors and exist in identical social conditions. Obviously, it becomes logical to place the disciplined students against the indisciplined ones and trace out vital differences between their social-psychological behaviour.

We had the opportunity to study the problem, first, in 1962. But in the following twelve years we noticed that a great many tumults have taken place in the campus selected for study; viz., assault of the Vice-Chancellor and senior teaching staff-members, police firing (April 23, 1965), dissolution of the Students union and arrests of students, and shadow with authorities (Session 1965-66). Frequent strikes, demonstrations and agitations against senior teaching staff-members (from Session 1970-71 to 1972-73), closure of the University on April 4, 1973 for indefinite
period due to unruly situation, turning out of the students from hostels, P. A. C. patrolling, special arrangement of buses and railway bogies for students compelled to leave for their homes, rustications and arrests, etc. These and many other incidents, minor and major, created much curiosity to review and re-study the student behaviour in these aggravated conditions. We wanted to retest whether our findings did have any significance in the changed circumstances. As such, the study was repeated in 1974 and the old and new results were compared to establish certain facts with sufficient confidence.

Now, as this study covers a vast span of time, it becomes obvious to stress that the general experimental design of this research is, first, of matched group technique, and secondly, repeating the study of 1962 in 1974. The population of study is the same at both the stages, but the subjects could not be the same as it is not expected from nearly all the students to continue their education in the same under-graduate and post-graduate classes for such a long duration. Hence, the variable of subjects was eliminated, but the variable of population was maintained.

For the purpose of this long term study, the first thing was to select suitable tests, and if not available, adopt a few for our requirements. Next, to collect the data, and finally, to statistically analyse them for interpretation and discussion. Present chapter contains detailed information about all these three phases.

TESTS USED:

EMOTIONAL MATURITY TEST:

For measuring the emotional maturity, we selected the Emotional Maturity Test prepared by Qadri, Akhtar, and Jafri (1962) of the Department of Psychology, Aligarh Muslim University, Aligarh. It is meant for college and university students. The scale is divided into two parts. Part I and
II have 14 and 20 situations respectively, each having 3 response alternatives. The statements depicting emotional maturity–immaturity were sent to 53 psychologists of Agra, Aligarh, Lucknow, Punjab and Patna Universities for ratings. On the basis of the ratings obtained from the psychologists, scale values were determined for the various statements. Split-half reliability of Part I was found to be .73 and of Part II .62 (N=50). The test was validated against the Personality Adjustment Inventory, standardized by the Guidance Unit of the Department of Psychology, Aligarh Muslim University, Aligarh. But incidentally the authors had not worked out the norms of the test. This was done by the present researcher in 1962. Now the full details about this test are provided by Pareek and Rao (1974).

**SOCIAL MATURITY TEST**

The test for social maturity was prepared by Khan (1957) of the Department of Education, Aligarh Muslim University, Aligarh. It is meant for school, college, and university students. The test has 34 situations, each having 3 response alternatives (representing eight dimensions of social maturity) which indicate three levels of social maturity, i.e., lower, intermediate, and upper levels. Items included in the test were critically reviewed by the teachers of the Departments of Education and Psychology of Aligarh Muslim University, Aligarh. Matched-group technique was employed to validate the test, and t tests were used to determine significant differences between the social maturity of various age-level groups. Consequently, the test was found to discriminate significantly at 1% level of significance between socially mature and immature adults. The sample for standardization consisted 176 students.

While accommodating this test in the present study, we proceeded to determine the reliability coefficient and find out fresh norms, so as to ascertain whether it suited the sample under investigation.
ASCENDANCE-SUBMISSION TEST:

For the measurement of ascendancy-submission, in 1962 we could not get any Indian test or even an adaptation of the Ascendancy-Submission Test designed by Alport and Alport (1939), hence, it was decided to translate it into Urdu and Hindi, and adapt it for the Indian conditions and the present research.

The whole 33 items of the form for men were translated into Urdu and Hindi and modified to suit the socio-cultural conditions of the population under study.

Some wardens of Aligarh Muslim University hostels were approached and asked to select two groups of ascendant and submissive students from their hostels on the basis of criteria given below. In order to maintain uniformity and avoid subjectivity and confusion, the concepts of ascendancy and submission were explained to them (according to generally accepted criteria) in the following words:

We are going to call the students who possess 'self-confidence' being personally and socially effective individuals as ascendants, and those who depend on others for their need for reassurance, affection, or approval will be called submissives.

Along with the wardens, senior students of these hostels too were approached to give the names of the students whom they considered to evidently fall in the above-mentioned two categories. As they knew their hostel-mates very well, they were able to classify the students of their acquaintance into desired two groups having the above stated criteria.

After obtaining the lists from the wardens and senior students, a screening of both the lists was done in order to sort out the common names of ascendants and submissives in them. This process facilitated us to have
final lists of the required two types of students on whom the translated version of A-S Test was administered. Responses of each and every individual on all the items were scored and a frequency distribution of total scores was prepared. Median was calculated and individuals obtaining a total score below the median were classified as submissives, whereas those scoring above it were ascendants. Finally, we selected the two groups of students (n being 29 for each group) who were unanimously found to be ascendants and submissives on the basis of both external (opinions of the wardens and senior students) and internal (median value) criteria. A $X^2$ test was applied to find out whether the two contrasted groups significantly differ in their responses on various items of the test or not. The results are reported in the Table I given below:

<table>
<thead>
<tr>
<th>Item No.</th>
<th>Value of $X^2$</th>
<th>Item No.</th>
<th>Value of $X^2$</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>7.216</td>
<td>18</td>
<td>2.786</td>
</tr>
<tr>
<td>2a</td>
<td>2.091</td>
<td>19</td>
<td>14.056</td>
</tr>
<tr>
<td>2b</td>
<td>4.162</td>
<td>20</td>
<td>5.011</td>
</tr>
<tr>
<td>3</td>
<td>0.264</td>
<td>21a</td>
<td>0.782</td>
</tr>
<tr>
<td>4</td>
<td>0.243</td>
<td>21b</td>
<td>0.000</td>
</tr>
<tr>
<td>5a</td>
<td>0.960</td>
<td>21c</td>
<td>2.140</td>
</tr>
<tr>
<td>5b</td>
<td>5.012</td>
<td>22a</td>
<td>1.292</td>
</tr>
<tr>
<td>6a</td>
<td>2.888</td>
<td>22b</td>
<td>12.033</td>
</tr>
<tr>
<td>6b</td>
<td>3.104</td>
<td>23a</td>
<td>0.087</td>
</tr>
<tr>
<td>7</td>
<td>2.248</td>
<td>23b</td>
<td>7.856</td>
</tr>
<tr>
<td>8</td>
<td>5.041</td>
<td>24</td>
<td>0.576</td>
</tr>
<tr>
<td>9</td>
<td>3.198</td>
<td>25</td>
<td>7.086</td>
</tr>
<tr>
<td>10</td>
<td>5.867</td>
<td>26</td>
<td>0.544</td>
</tr>
<tr>
<td>11</td>
<td>4.000</td>
<td>27</td>
<td>4.849</td>
</tr>
</tbody>
</table>

(continued)
From the Table I, given above, we find that the item numbers 2b, 3, 4, 5a, 6a, 7, 13, 14, 17, 18, 21a, 21b, 21c, 22a, 23a, 24, 26, 28, 32, and 33 were insignificant at 5% level of significance. These items were dropped since they failed to discriminate between the ascendants and submissives.

Split-half reliability coefficient of the finally selected 20 items was found out to be .625 (N = 40). (See Appendix: II). It was worked out on the basis of Spearman-Brown Prophecy Formula (Tate, 1955; P. 334).

**PICTURE STORY TEST:**

The projective test that we used in our study is an Indian adaptation by Eureshi (1975) of Symonds' Test of Fantasy. It measures motives, i.e., achievement, affiliation, power, aggression, and security. A set of two plates is available to assess each of the above motives. The sample for standardization consisted 119 students. The reliability coefficients as determined by Eureshi are reported below:

**TABLE II. RELIABILITY COEFFICIENTS**

<table>
<thead>
<tr>
<th>Motives</th>
<th>Split-half</th>
<th>Inter Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>Achievement</td>
<td>.85</td>
<td>.82</td>
</tr>
<tr>
<td>Affiliation</td>
<td>.81</td>
<td>.77 (continued)</td>
</tr>
</tbody>
</table>
The above quoted reliability coefficients show that the test is sufficiently reliable to measure the said motives.

Only two sets of pictures, measuring aggression and security, were selected from Kureshi's adapted set for the present study so as to determine how far the two groups differ in these personality factors.

Administration of the test, its scoring and analysis are explained by Kureshi (1975). However in the present study a quantitative analysis has been preferred over the qualitative one, which has been discussed in the following pages.

DETERMINATION OF THE NORMS:

As pointed out earlier, the norms were not available for Emotional and Social Maturity Tests, so it was decided to determine them for these tests as well as for Ascendance-Submission Reaction Test adapted in Urdu and Hindi. For this purpose, Random Sampling Technique was employed to obtain a representative sample from each hostel of the halls of Aligarh Muslim University, Aligarh. The sample consisted of 300 men students of the University. Women representatives were deliberately kept out because they were in no way connected with this study. Some of the returns were rejected because their scores were incomplete and some important details were missing.

All the three tests, viz., Emotional Maturity, Social Maturity, and Ascendance-Submission were administered to the randomly selected students. For each test first and third quartiles were computed. The norms based on quartile values for the three tests are reported in the tables.
given below:

TABLE: III. NORMS OF EMOTIONAL MATURITY

<table>
<thead>
<tr>
<th>Levels</th>
<th>Norms</th>
</tr>
</thead>
<tbody>
<tr>
<td>Immature</td>
<td>upto - 67.69</td>
</tr>
<tr>
<td>Average</td>
<td>67.70 -to- 78.22</td>
</tr>
<tr>
<td>Mature</td>
<td>78.23 and above</td>
</tr>
</tbody>
</table>

(See Appendix: III)

TABLE: IV. NORMS OF SOCIAL MATURITY

<table>
<thead>
<tr>
<th>Levels</th>
<th>Norms</th>
</tr>
</thead>
<tbody>
<tr>
<td>Immature</td>
<td>Upto - 72</td>
</tr>
<tr>
<td>Average</td>
<td>73 -to- 82</td>
</tr>
<tr>
<td>Mature</td>
<td>83 and above</td>
</tr>
</tbody>
</table>

(See Appendix: IV)

TABLE: V. NORMS OF ASCENDANCE-SUBMISSION

<table>
<thead>
<tr>
<th>Levels</th>
<th>Norms</th>
</tr>
</thead>
<tbody>
<tr>
<td>Submissive</td>
<td>Upto - 18</td>
</tr>
<tr>
<td>Average</td>
<td>19 -to- 25</td>
</tr>
<tr>
<td>Ascendant</td>
<td>25 and above</td>
</tr>
</tbody>
</table>

(See Appendix: V)

METHODOLOGY:

As we have repeatedly mentioned, this study was once done in 1962 and again repeated in 1974 for the verification of earlier findings. Therefore, it will be required to state the procedure and method adopted, first, in 1962 and, later on, that which was employed in 1974.
It was primarily intended to find out how the behavior of indisciplined students was different from that of the disciplined ones. Therefore, the groups of both the types of students were contrasted with each other and matched-group technique was employed for getting definite results. First step of this technique was to locate those students who were deemed to be disciplined and those who were considered to be indisciplined. Keeping this fact in view, the records of the Proctor's Office, Aligarh Muslim University, Aligarh, were consulted at the outset to prepare a list of students against whom the complaints of any misconduct had ever been logged. These records provided the names of three types of students, i.e., first, those students against whom complaints were made but no punishment was given to them as there was a lack of sufficient evidences; secondly, those students against whom the disciplinary action was taken only once; and thirdly, those students against whom disciplinary action was taken more than once. Evidently, the names of the first type of students were omitted from our list and the rest two types were selected for the purposes of present study.

The list prepared from the records of the Proctor's Office spread over a span of three academic sessions, which provided the names of only 85 such students. Normally, every case of indiscipline is not referred to the Proctor, many of them pertaining to Halls of residence are dealt with by Wardens and Provosts themselves. So, we approached the Provosts, Wardens, Office-bearers, seniors of the Halls and room mates of the students as well, for getting information about some additional cases of indiscipline.

While approaching Wardens and senior students it was kept in mind that they would be the most appropriate sources by which we could conveni-
ently trace the disciplined students. Therefore, the first thing that we did was to prepare the lists of disciplined and indisciplined students before we could come in contact with University authorities. In order to prepare the lists we studied the personal files of the students maintained by the Provost Offices of various Halls and sorted out the groups of 'offending students' and 'clean record students'. Next, we contacted wardens and senior students whom we requested to write the names of the students in the two respective columns of the forms (see Appendix: XXXIV) for being disciplined and indisciplined according to the criteria mentioned therein. On the basis of their high frequencies, the two lists of disciplined and indisciplined students were prepared from these responses. Students in the doubtful category, i.e., where the respondents did not agree regarding their conduct, were dropped.

Before finalising these lists, room-mates of these students were contacted and were requested to give their opinion about their 'partner' in question whether he could be called a disciplined or indisciplined student. Thus, further checking of these lists was done by interviewing the Partners of those students. In some cases the students who were declared as disciplined by Wardens, Provosts, etc., were not considered so by their room-mates. Relying on their intimate knowledge, the names of students were dropped from the list so that the doubtful cases could be eliminated.

In the case of indisciplined students, opinions of the room-mates were not considered to be very much reliable, because it was quite expected that subjective and personal bias could influence a detached opinion. Hence, in the latter case, if the opinion differed with those of the wardens, senior students, and the Provost Office records, it was rejected and the name of the indisciplined student was retained in the list. In other words, if majority of the opinions supported by office records placed a student
Finally, the list of offenders, prepared on the basis of the records of Proctor's Office, was compared with the list of indisciplined students prepared through the records of Provost Office and also with the opinions of wardens, senior students, and room-mates. Through this process it became possible to prepare a consolidated final list of 265 students known as the indisciplined ones. Our list of disciplined students, prepared with the help of the reports of wardens and opinions of senior students and room-mates, consisted 341 names. From these two lists again, as a principle, we dropped the borderline cases from our sample, and as a precautionary measure we picked out only prominent cases from both the lists so as to have significantly contrasting groups, rather these were the cases about whom there was the maximum consensus of opinion, which consequently served as the principle of sampling for our study.

After finalizing the lists of disciplined and indisciplined students, we made efforts to contact the indisciplined students first, as it was feared that this group would prove to be a hard core to tackle with. During our contact with these students we found that nearly 63 students of this group were not available in the university, for they had been either suspended or rusticated from the institution. A few of them, by that time were expelled from the hostels. From the remaining 202, some 44 students refused outright to cooperate in any way, and 24 gave one or the other excuse for sparing time for this project. Rest of the 134 students, however, were served the three inventories of Emotional Maturity, Social Maturity, and Ascendance-Submission Reaction for giving responses. These students were frequently contacted for getting prompt responses from them. In the course of contact it was experienced that 53 students had betrayed disinterestedness in a task like this for which they had patiently to sit
and fill the inventories before the investigator. They felt it to be a cumbersome job to respond to all the three inventories. When the remaining 81 sets of the three inventories were collected and scoring work was started, it was found that some 31 students had done the job very carelessly. They had left pages and items unmarked. Their information schedule was also filled in with misleading informations. These 31 students were once more persuaded to complete the tests, but they never took it so seriously and, thus, the total number of this group came down to 50 only. Since, the present study being based on matched-group technique, the extensiveness of a group is fortunately not as important as the well-defined nature of the group. We have the precedence of Nolin (1958) also in this regard, who too has done his Ph. D. study on a sample of 50 and has achieved sufficient recognition for his work.

Considering the number of cases in the indisciplined group, only 50 students from the long list 341 disciplined ones were selected for the present study. These students proved extraordinarily cooperative and sympathetic in completing the tests and giving the needful information.

After applying the three tests, i.e., Emotional Maturity, Social Maturity, and Ascendance-Submission Reaction Tests for the measurement of the three personality factors, it was proposed to have a deeper probe in the personalities of some of the cases of both the groups, in order to find out the role of other factors, such as aggression and security. As the test for this purpose was more time consuming, it was difficult to persuade all the subjects to respond to it, we decided to limit the number of subjects to the extreme cases of the two groups only; both of which, consequently, contained 10 disciplined and 10 indisciplined students. All these 20 subjects, selected for the depth study, were individually served the plates of pictures and were asked to write stories, for which standard instructions (Atkinson, 1958) were given. The scoring of responses was done accord-
ing to the behavioral sequence scheme (McClelland, et al; 1953) as evolved
by Kawanishi (1972).

The data obtained through all these tests were analyzed through
appropriate methods. The results were discussed and interpreted which led
to final conclusions of the study.

As regards the educational attainment, socio-economic status, and
rural or urban habitation, the data were collected through the fact-find-
ing schedule which was printed on the title page of Emotional Maturity,
Social Maturity, and Ascendancy-Submission Reaction Tests. These data were
also statistically analyzed for getting the final results for interpreta-
tion and discussion.

1974

After so many turmoil and disturbances in the peace and harmony
of the campus, it was decided to repeat the study and verify the results
found out in a comparatively less unrest campus.

Starting once again with the study, we first contacted the Principal's
Office, Aligarh Muslim University, Aligarh, and consulted their reco-
ords with their permission. We were able to make out a longer list, in compa-
rison with that of 1962, of those students who were reported to that offic-
e. This time too, we dropped the names of those students who were not
charged against the reported misconduct. We also dropped the names of those
students who had been suspended or turned out of the hostels for a long
term. List of the remaining names had a serial number of 463. On the second
stage, we contacted the Provosts of all the halls to obtain the permission
for consulting personal records of the students residing in their halls.

From here again we prepared a list of 479 students. On the third stage, we
served the forms (see APP. XXXIV) to the wardens, senior students and
zoom-mates of those students who were either very much conspicuous due to
their activities and behavior. Though this source too we got a list of
396 students categorized as indisciplined.

By comparing the three lists we found that there were 169 names common in all of them. Hence, the rest of the names were dropped from our list of the indisciplined students.

As far as the disciplined students were concerned we did not have any records about them in any office. So, it mainly related to the wardens, senior students, and the room-mates of such students to give dependable information. The above referred persons were one source to collect the names of disciplined students, and personal contact of the investigator with the informers and the students concerned was the other means to verify the genuinity of the report. By this process we collected 397 names of such students about whose good conduct there was no difference of opinion.

As we wanted to have a matched sample with that of 1962, we appreciated to reduce the number of disciplined and indisciplined groups to n = 50 each. Our previous experience showed that the students from the indisciplined group were less cooperative than the other group. Therefore, we started contacting the former students first. When they all 169 filled the three tests of Emotional Maturity, Social Maturity, Ascendence-Submission Reaction, each of its copy was screened. The students who had not given response to us and left the tests with incomplete entries or who abstained from cooperating with us were once again dropped out of our sample. Thus, we had some 98 cases from the indisciplined group, out of which we selected those 50 cases who were the extreme ones in their group. For matching with them, we approached the 50 apparently well disciplined students and got the above said tests filled by them. This approach was quite easy and free of troubles, so we finished the task quickly.

The next step was the depth study of the two groups for aggression and security. In the study at the first stage, i.e., in 1962, we had taken 10 extreme cases from both the groups of disciplined and indisciplined
students. We adopted the same course in 1974 as well. We served on them the plates of pictures adapted by Kureshi (1973) and got the stories written by them according to the method prescribed by him.

The data regarding the social factors of educational attainment, socio-economic status, and rural or urban inhabitation, was gathered through the fact-finding schedule printed on the earlier mentioned three tests.

All the data collected through these procedures were statistically treated and the results interpreted and discussed accordingly.

**STATISTICAL ANALYSIS:**

For analysing the data we have applied various appropriate statistical methods, amongst which the measures of central tendency, viz., mean and median have been extensively used. Tate (1955) suggests that the measures of central tendency and variability "in addition to providing the basis for exact comparisons of the two series, are indispensable in the analysis and interpretation of a single series". The variability of a series may be more important and reveal more about the series than average value. Again, "averages are always more meaningful and less susceptible to misinterpretation when accompanied by statements regarding variability". (Tate, 1955; P. 117). Hence, standard deviation and coefficient of variance (cv) were used to find out the extent of variation among the two groups that we studied. CV expresses the standard deviation as a percentage of the mean, and as such, it provides a measure of variability relative to average value. The formulae used to calculate the above mentioned variabilities were taken from Edwards (1954).

In order to draw statistical inference, particularly testing of hypothesis, we have used non-parametric tests which are also known as distribution-free tests. We have used the Kolmogorov-Smirnov two-sample test to find out whether two independent samples of disciplined and indisciplined
students have been drawn from the same population. Siegel (1956) contends that this two-tailed test is sensitive to any kind of difference in the distributions from which the two samples were drawn — differences in location (central tendency), in dispersion, in skewness, etc." K-S test, apart from being a powerful test, operates more conservatively, according to Goodman (1954), even when it is used with data which do not meet the assumption of continuity. This test has again been used to find out the differences between the two results of 1952 and 1974.

In making inferences about populations and in generalizing beyond specific samples the $\chi^2$ test is considered to be one of the most appropriate techniques (Dubois, 1965). When the data consists of frequencies in discrete categories this test is employed for determining the significance of differences between two independent groups (Siegel, 1956; P. 104).

It has been suggested that when the smallest expected frequency is less than 5, Fisher's Exact Probability Test is to be used (Siegel, 1956; P. 110). This is an extremely useful nonparametric test for analyzing discrete data especially when the sample drawn are independent and small in size (McNemar, 1962).

These statistical tests have enabled us to have definite quantitative results for the present empirical study and infer certain conclusions which may prove of some utility in tackling the student problems in future.

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