CHAPTER - III

Methodology

Statement of the problem

Research Design & Variable Network & Working Definition

Sample

Research Tools

Data collection

Data Analysis
CHAPTER III

METHODOLOGY

Statements of the problem

A cross cultural study of Rigidity, Flexibility, and psychological Normality in Iranian and Indian college students.

In order to fulfil the aims, objectives and hypothesis which described in Chapter one the following methodology is applied.

A. Research Design, Variable Network and Working Definition

The research design of the present study are made on the basis of various independent and dependent variables. Table 3.1 shows that variable networks of present study. (next page)
<table>
<thead>
<tr>
<th>VARIABLES</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Independent Variables (Demographic Variables)</td>
<td>Dependent Variables</td>
</tr>
<tr>
<td><strong>1. Cultural groups</strong></td>
<td><strong>1. Psychological Normality</strong></td>
</tr>
<tr>
<td>A. Iran Students</td>
<td>2. Rigidity Versus Flexibility</td>
</tr>
<tr>
<td>a) Male students</td>
<td>a) Introversion</td>
</tr>
<tr>
<td>b) Female Students</td>
<td>b) Conservatism</td>
</tr>
<tr>
<td>B. Indian Students</td>
<td>c) Fusion of fear</td>
</tr>
<tr>
<td>a) Male students</td>
<td>d) Automatism</td>
</tr>
<tr>
<td>b) Female students</td>
<td>e) Intolerance</td>
</tr>
<tr>
<td><strong>2. Gender Groups</strong></td>
<td>f) Adaptability</td>
</tr>
<tr>
<td>A. Male (Combination of Two cultural male groups)</td>
<td></td>
</tr>
<tr>
<td>B. Female (Combination of two Cultural female groups)</td>
<td></td>
</tr>
</tbody>
</table>
Working Definition of Variables

In this study two cultural as well as two gender groups which are demographic variables has been considered as independent variables which are as follows:

1. Cultural Groups

A) Iranian Culture:

Iranian students are representative of Iranian cultures versus Indian cultures, which combination of male and female.

B) Indian Culture

Indian students are representative of Indian cultures versus Iranian cultures, which combination of male and female.

2. Gender Groups

Both the cultural male groups of the students are combined versus two cultural female groups as a gender comparison.

Dependent Variables

1. Psychological normality:

Normality test by Raval H.P (1989) are used to estimate the level of normality for two cultural and gender group
2. Rigidity Versus Flexibility:

Test of rigidity by Ansari F.B (1979) are used to estimate the level of rigidity for two cultural and two gender groups. Also rigidity sub-factors as table 3. shows considered as a sub-variables of the research study, which estimate the level of; (a) introversion (b) conservatism (c) fusion of fear (d) automatism (e) intolerance and (f) adaptability.

B. Sample:

The present study was conducted on two cultural and two gender groups. The samples were incidentally chosen from the district of Tehran (Iran) and district of Ahmedabad (India). The age range of the respondents was 19 to 23 years, with a means of 21 years. The procedure for their selection was incidental. The researcher contacted the principle of the colleges and appraised them about his plan. After that the researcher prepared a list of the classes and out of the selected classes 600 subjects incidentally chosen. 300 students from each city, 150 male and 150 female both of the groups belonging to faculty of Arts, Commerce and Science from the English medium colleges. Table No.3.2 shows the distribution of the sample for two cultural and gender groups.

Table No. 3.2

<table>
<thead>
<tr>
<th>Cultural Groups</th>
<th>Male</th>
<th>Female</th>
<th>Total Numbers</th>
</tr>
</thead>
<tbody>
<tr>
<td>Iranian</td>
<td>150</td>
<td>150</td>
<td>300</td>
</tr>
<tr>
<td>Indian</td>
<td>150</td>
<td>150</td>
<td>300</td>
</tr>
<tr>
<td>Total</td>
<td>300</td>
<td>300</td>
<td>600</td>
</tr>
</tbody>
</table>
C. Tools of Research

The tools used in the present study are given below:

1. Rigidity test (Ansary F.B)
2. Normality test (Raval P.H)

Higher score in rigidity test is indication of higher rigidity and higher score in normality test is indication of lesser normality

1. Rigidity Test (Ansary F.B., 1976)

This test was constructed by Ansary F.B (1976). For the purpose of measuring level of rigidity - flexibility. This test consists of 42 "True" "False" items which have been drawn from a large number of personality inventories like, Minnesota multiple personality inventory (MMPI) and Institute of Personality Assessment and Research (IPAR). The construction of this test involved item analysis. In this process top scores (above 75% percentile) and lowest (25 percentile) are cut off and are compared for the purpose of selecting subjects who scoring high rigidity and low rigidity. The middle scores are not considered necessary and useful for any purpose, therefore ignored for the finalizing the test of Rigidity.

The construction of this test is based on the following six characteristics.

1. Introversion
2. Conservatism
3. Fusion or fear,
4. Automatism, and
5. Intolerance
6. Adaptability

In order to understand these characteristics very clearly, the number of items possessing this characteristics with their meanings are given below:

1. Introversion. Total number of items 8.
   Such person finds interest and values in one's own thought, feelings, and ideas, dreams for future, socially and emotionally constricted, anxious, unable to speak before audience or in social gathering.

2. Conservatism. Total number of items 8.
   This refers to the tendency to have the establish ways of behaving, conservative in making decision, conventional in nature, adherence to certain place, people m, and mode of conduct and ever persistence of purpose.

3. Fusion of fear. Total number of items 6.
   This characteristics refers to anxiousness and helplessness. People having this traits become anxious when they can not solve problem relating to life, want someone to help them, feel some times that uncertain and unpredicted things give them torture. They also show aggressive behaviour when they find that a friend or relative is not approving of them, and also show hostile or selfish tendency towards persons whom they love most because they love themselves too much.

4. Automatism. Total number of items 8.
   People suffering from this trait become frightened when they have to perform same task time and again, are slow in making of mind, do compulsive acts like changing one type of work to another when put in an ambiguous situation. They
often repeat the same error while performing a task, show unfavorable attitudes towards any nation group or class of people.

5. Intolerance of ambiguity. Total number of items 6.

Such an individuals depicts discomfort when faced with complex or uncertain situations they does not easily cop with any difficult situations and thus seeks help from outside to resolve or explain the ambiguity or shall simplify the situation. They also avoids difficult problems of their lives.

6. Lack of adaptability. Total number of items 6

Such people have adjustment problem ard lack in readiness, prefer the company of others or younger and consider themselves to be very inferiors. That is why they do not adjust themselves in any situation very easily. Novel situation seems to a Herculean task to them.

These characteristics may be said to be a connotative definition of the terms rigidity established empirically.

As mentioned above, this scale consists of 42 yes/ No items. The subjects are required to mark (✓) on 'Yes' or 'No' in their responses. If the subjects respond 'yes' on 30 item are given one score on each response. Out of remaining 12 items, one score is given if the subjects respond on 'NO' items A total score for the subjects is then obtained part I and part II shows the level of rigidity.

The reliability of this scale has been estimated by split-half technique and Test-retest method, the value of which come to 0.71 & 0.73 respectively in a sample of 200 college going students and 100 college teachers. The age of the students was
16 to 20 years with a mean age of 18.5 years & teachers age range was 27 to 45 years with a mean age of 36 years. The researcher has applied this scale because he feels that this type of scale can be applicable for Indian and Iranian social cultural condition.

### Table No.3.3
**Reliability of Rigidity Test**

<table>
<thead>
<tr>
<th>Variables</th>
<th>N</th>
<th>R</th>
</tr>
</thead>
<tbody>
<tr>
<td>College students</td>
<td>200</td>
<td>.71</td>
</tr>
<tr>
<td>College teachers</td>
<td>100</td>
<td>.73</td>
</tr>
</tbody>
</table>

2. **Normality Test (Raval P.H., 1989)**: -

Meehl (1978) developed the normality test as a sub-scale on the basis of his empirical testing. He has traced 78 item. From MMPI and groups them in to the normality scale which was a screening instrument for general population to assess the level of normality.

Raval (1989) tried to develop the Indian adaptation of Meehl instrument and administer in three groups on the same subject and tried to compare the result separately. First group of the item 1 to 26 3rd group consists 27 to 53 and the third group of items 54 to 78. A group of 28 student has scored nearly the same score in each group and the one way F was non significant. Hence the 1st group of 26 items
was omitted and the rest of the items i.e. 52 were included in the Indian adaptation of the scale. All the three groups were significantly correlated to each other to a acceptance level. The test is standardised on the sample of 200 people from the population of college students.

So this scale consist of 52 to " True", " False" items. Scoring was done as it is instructed in the manual.

If the subjects response "Yes" on 37 items, each items will be given one score on each response. And remaining 15 items, one score is given if the subjects response on 'No' items.

A total score used to determine the level of normality. Higher the score lower is the normality.

**Reliability of normality and rigidity**

Reliability has been done for both the test in English and Persian version. First both the tests was translated in Persian language and then it is applied in twenty Persian language students in India and finally after two weeks of interval the English version of same tests has been applied on same sample.

The reliability of the both the test done by test-retest technique for Persian and English version as shown on Table Number 3.4.
Table No. 3.4

Test-retest reliability of English and Persian version for normality and Rigidity test.

<table>
<thead>
<tr>
<th>Persian version</th>
<th>English Version</th>
<th>N</th>
<th>r</th>
</tr>
</thead>
<tbody>
<tr>
<td>Normality</td>
<td>Normality</td>
<td>20</td>
<td>.59</td>
</tr>
<tr>
<td>Normality odd</td>
<td>Normality odd</td>
<td>20</td>
<td>.39</td>
</tr>
<tr>
<td>Normality Even</td>
<td>Normality Even</td>
<td>20</td>
<td>.28</td>
</tr>
<tr>
<td>Rigidity</td>
<td>Rigidity</td>
<td>20</td>
<td>.67</td>
</tr>
<tr>
<td>Rigidity odd</td>
<td>Rigidity odd</td>
<td>20</td>
<td>.56</td>
</tr>
<tr>
<td>Rigidity Even</td>
<td>Rigidity Even</td>
<td>20</td>
<td>.48</td>
</tr>
</tbody>
</table>

Level of significant at 0.01 level

D. Data collection:

After the subjects were selected, by the incidental sampling, then the researcher contacted them in their institution. They were persuaded to seat in the room according to the plan in the day and the time already fixed up with them by the researcher. In this way, the data was collected from institution to institution. The college teacher was present with him at the twice of administration of the questionnaire and data collection. This facilitated in the establishment of rapport with the subject and made the task of data collection easier and convenient.

In the group, there were 20 to 60 students contacted at one time, on an average there were 30 student in one group. The duration of each session was roughly 70 minutes, 10 to 15 minutes spending in giving instruction leaving 50 to 55 minutes for actual work for both the tools used in the study. The whole data were collected
in 20 batches (10 batches from each country), and care was taken to keep best possible uniformity among group in every respect.

In this way, researcher applied both the tools one by one and collected the data.

E. Data Analysis

In this study three statistical methods are undertaken to examining and calculating the various hypotheses. These methods are Anova, 't' test and correlational methods. Ten hypotheses are formulated on the basis of Anova to examine the cultural and gender groups differences in respect to rigidity and normality as well as rigidity sub-factors.

Forty-eight hypotheses are formulated on the basis of 't' test to examine the cultural and gender groups differences. And also twenty-eight hypotheses are formulated to find out the correlations between normality versus rigidity and normality versus rigidity six sub-factor and rigidity versus its six sub-factors. Tables and graphs are plotted to display the results.