CHAPTER II

METHODOLOGY

Design:

Independent Variable:

The independent variable employed in this study is 'culture' or ethnicity with regards to different groups belonging to two races, namely Indians and Nigerians.

Dependent Variable:

Dependent variables are 'personality' and 'intelligence' in terms of 16 personality factors and intellectual capacity respectively.

Sample:

A sample of 40 Indians and 40 Nigerians was drawn on random basis from the Indian population of 150 students and 63 Nigerian undergraduate students. All the subjects were males ranging in age from 18 to 22 years. The study was conducted in Agra city. Thus, the sample studied constitutes 80 cases.
Materials:

The materials that was used in this study were:

* 16 PF by Cattell English Version.
* VSJ (Form A) by Kapoor Hindi Version of 16 PF,
  and SFM by Raven.

**Sixteen Personality Factor Questionnaire (16PF)** is an objectively – Scorable test devised by basis research in psychology to give the most completely coverage of personality possible in a brief time. This test was prepared by B. Cattell and Herbert W. lie in 1954.

Originally it was published in English version and a later it was adapted by S.P. Kapoor and translated both the instructions and items into Hindi.

**Raven Progressive Matrices (RPM) as a test was constructed by J.C. Raven in 1960. He was a Director of Psychological Research at the Crichton Royal, Dumfries. Since then it has undergone series of reprints together with norms for adult. The construction of this test was based on apriori assumption that if Spearman’s principles of neogenesis were correct, it should provide a test suitable for comparing people with respect to their immediate capacities for observation and clear thinking. This test**
practically assess a person's intellectual development, transability or mental impairment.

Procedure:

On personal contacts notifications were given to the subjects selected in sample at various places and on different dates, requesting them that their help would be needed in psychological tests, in the psychological department. A convenient date and time was fixed with them.

On the appointed date and time the subjects were contacted and a brief introduction of tests was given. Having made them seated and a good rapport established, 16 FF Questionnaires were distributed to the subjects. Hindi adaptation to the Indians and English version to the Nigerians. They were instructed to go through, first of all, the printed instructions. The instructions were easy and self-explanatory, yet clearly spelled out to the subjects.

When they were all satisfied with the instructions, the tests were administered. Time limit was not considered rather opportunity was given, to enable them strive at their pace and ensure completion. On the expiration of the test, the test booklets and test forms were taken back.
Following a brief test pause, the administration of the second test commenced. First of all, the test forms and booklets were all given out to the subjects. They were asked to fill their names and other necessary particulars in the space provided in the test forms. During this process, they were not to open the booklets. Later on, they were asked to turn to page one of the test booklets, instructions and practical demonstrations of the missing patterns were displayed. After which they turned over to the subsequent pages and began the test smoothly till they finished. The finished works and booklets were collected for scoring and analysis.

The administration of both the tests, however, were not carried out on the same day for some subjects due to time factor. The sequence of the two tests also varied from subject to subject. The testing phase was ceased when all 80 subjects had been administered both tests.

Scoring:

On completion of the administration of the tests, the response sheets were all checked for omission and doubling of responses. No form was rejected in that all the forms were adequately and duly completed in each respect. The raw scores
for 16 rF were obtained with the help of two stencil keys; each key represents raw scores for eight personality factors. The raw scores were converted into sten scores in accordance with the normalized stens for 1212 college males for Form A. From the sten scores on the primary factor, the second-order factor stens were obtained giving weight to different stens of primary factors. It yielded four second order factor sten scores for each subject.

Sten scores are distributed over ten equal interval standard score points, from 1 through 10, with the population mean fixed at sten 5.5. Stens 5 and 6 extend, respectively, a half standard deviation below and above the mean, constituting the solid center of the population, while the outer limits for stens 1 and 10 are 2½ standard deviations above and below the mean. One would consider sten of 5 or 6 as average, 4 or 7 slightly deviant (respectively in a low and high direction), 2, 3, 8 and 9 strongly deviant, and 1 or 10 extreme.

Similarly, S.P.M. raw scores were obtained with the key. The key provides number of correct solutions out of twelve problems for each of the
five sets in the test. The obtained scores were tested for their deviations from ideal distribution according to norms by Raven to assess the internal consistency.

Analysis:

Since the significance of differences between the means of two samples, was to be assessed, the 't' test was applied. The scores were in ratio scale and the samples drawn randomly from the population served the assumptions of the test. The degree of freedom was \( N-2 = 78 \) for each analysis. The confidence level of probability to accept the significance of differences was set as equal to or less than .05. A separate analysis was undertaken for sixteen primary factor scores, four second-order factor scores and SPM scores.

Other descriptive statistics such as mean, graphic representation and profile etc., were also used.