CHAPTER III
METHODOLOGY

3.1 RESEARCH DESIGN
3.2 UNIVERSE AND SAMPLE
3.3 TOOLS
3.4 PROCEDURE
CHAPTER III

METHODOLOGY

The validity and dependability of any research work is judged on the basis of the soundness and scientificness of its methodology. Therefore, the next step is to chalk out a suitable methodology to seek a scientific solution to the research problems through verification of its hypotheses. In the present research work, following methodological steps have been taken to obtain the empirical evidence in favour or against the problems and hypotheses stated in chapter II.

3.1 RESEARCH DESIGN :-

Research design is the plan and structure of investigation so conceived as to obtain answers to research problems (Kerlinger, 1986). It enables the researcher to arrive at valid, objective, accurate and economic solution of a researchworthy problem through empirical verification of its related hypotheses by way of collecting the disciplined data. In this sense, it has been technically referred as a mechanism of controlling variances through the principle of "Max-Con-Min". "Max" part of this principle guides the researchers to go for maximization of the systematic or experimental variance by way of varying independent variable to such levels that the variations stand too apart from each other and the various experimental conditions could be as different as possible. "Con" refers to control over all such extraneous variables that would presumably influence the dependent variable. "Min" part stands for the minimization of error variance. Error
variance are produced from those factors which are beyond manipulative control of the researcher. The best way to minimize the error variances is to execute the proper control over the independent and extraneous variable and to use objective and reliable measures in the investigation.

In the present study, a 2x2x2 factorial design was thought to be the best suited as the independent variables, viz., cognitive differentiation and extraversion and neuroticism dimensions of personality were to be varied at two levels to study their main and interaction effects on the dependent variable, viz., vocational aspiration. Therefore, a (2)^3 factorial design was employed to verify the relationship between vocational aspiration and three aforesaid independent variables or factors.

In the present investigation, it was felt necessary to control certain extraneous variables, viz., age and educational level, intelligence etc. to overcome their expected influence on vocational aspiration. Therefore, variance attributed to the factors i.e. age and educational level were eliminated by holding the age and educational level of the target persons constant during the investigation. Thus, the subjects selected in the sample were 14 to 16 years old students of class X. Intelligence were also controlled in the study through random selection of subjects in the strata, their same educational level and by using statistical control at the time of data processing. The remaining possible factors were left to chance.

The investigation undertaken was of “ex post facto” in nature because the independent variables namely, E, N and cognitive differentiation were beyond purposive manipulation of the investigator and the values of
E, N and cognitive differentiation were accepted as had been tapped by psychological tools. Since, the level of each independent variables are fixed, before conducting the investigation, it means that the investigator is interested only to find out the effect of a particular fixed value of the independent variable or factors. That is why, it is referred as fixed model in which the levels of factors are arbitrarily selected by the investigator who wished to generalize only these specific levels of the factors.

Further keeping in view of the comparative tone and nature of the first three problems and hypotheses, the extreme groups (dichotomous groups) comparison oriented "research design" has been thought to be the best suited one. Thus, it is to be registered here that in this piece of research only two, namely, "comparative" and a 2x2x2 factorial design has been employed. The method of difference as the design of proof has been applied to *ex-post facto* scientific inquiry.
FACTORIAL DESIGN \( pqr - 2 \times 2 \times 2 \) TYPE

A - Cognitive Differentiation
\[ a_1 \] - High Cognitive Differentiation
\[ a_2 \] - Low Cognitive Differentiation

B - Extraversion
\[ b_1 \] - Extraverted
\[ b_2 \] - Introverted

C - Neuroticism
\[ c_1 \] - Neurotic
\[ c_2 \] - Normal

\( p \) levels of A, where \( p = 2 \) (or \( a_1, a_2 \))

\( q \) levels of B, where \( q = 2 \) (or \( b_1, b_2 \))

\( r \) levels of C, where \( r = 2 \) (or \( c_1, c_2 \))
Fig. No. 3.1 (a)
Block Diagram of pqr (2x2x2) Factorial Design

<table>
<thead>
<tr>
<th></th>
<th>b₁</th>
<th>b₂</th>
</tr>
</thead>
<tbody>
<tr>
<td>a₁</td>
<td>c₁</td>
<td>c₂</td>
</tr>
<tr>
<td></td>
<td>s₁</td>
<td>s₂</td>
</tr>
<tr>
<td>a₂</td>
<td>s₅</td>
<td>s₆</td>
</tr>
<tr>
<td></td>
<td>s₇</td>
<td>s₈</td>
</tr>
</tbody>
</table>

A - Cognitive Differentiation
  (a₁) - High Cognitive Differentiation
  (a₂) - Low Cognitive Differentiation

B - Extraversion
  (b₁) - Extraversion
  (b₂) - Intraversion

C - Neuroticism
  (c₁) - Normal
  (c₂) - Neurotic

Groups/Strata/Treatment combinations = 2 x 2 x 2 = 8

a₁b₁c₁, a₁b₂c₁, a₂b₁c₁, a₂b₂c₁, a₁b₁c₂, a₁b₂c₂, a₂b₁c₂, a₂b₂c₂

No. of Ss in each stratum = 40
Total No. of subjects = 8 x 40 = 320
VOCATIONAL ASPIRATION (Realistic-Idealistic)

High Cognitive Differentiation

- Extroverted
  - Normal
  - Neurotic

- Introverted
  - Normal
  - Neurotic

Low Cognitive Differentiation

- Extroverted
  - Normal
  - Neurotic

- Introverted
  - Normal
  - Neurotic

A SCHEMATIC DIAGRAM OF 2x2x2 FACTORIAL DESIGN

Fig. No. - 3.1 (b)
3.2 **UNIVERSE AND SAMPLE:**

Universe means all the number of any well defined class of people, events or objects. Thus, the whole group from which the sample has been drawn, is termed as universe or population. Because of its large size, it is either impossible or impractical for investigators to produce statistics based on all members of the universe. Therefore, it seems necessary to select a representative sample for estimating population characteristics, so that, generalization of inferences can be scientifically made. Goode and Hatt (1952) has pointed out the two main basic characteristics of a good research sample. These are representativeness and adequacy. Representativeness of a sample means that it must include all such possible characteristics of the population that divide it into mutually exclusive segments. Adequacy of the sample refers to its size. An adequate sample is one that ensures reliable results to whatever may be its size. Thus, in the present study stratified random sampling technique, based on probability principles is used to select an unbiased representative sample from the universe. To have homogenous and unbiased sample, in the present study the sample has been drawn from the population of the students studying in the class X within the age range 14-17 years were drawn from various Hindi medium schools of Korba town (Chhattisgarh State).

A stratified random sampling is that sample plan in which the researcher randomly takes subjects in his sample according to some known or specific characteristics of the population. In this method, the universe
is divided into various homogenous subclass or strata according to one or more specific characteristics of the population. Each stratum consists of the members who are very much alike or homogenous. In the present study, the adolescent population of Class X is split into a number of categories on the basis of three specific characteristics -

1. Cognitive Differentiation - High (H.C.D.) vs Low (L.C.D.)
2. Extraversion - Extraverted vs Introverted
3. Neuroticism - Neurotic vs Normal

This type of stratification is known as complex stratification. Thus, in this study we have 2x2x2 or 8 strata as mentioned below -

1. H.C.D. - Extroverted-Neurotic Ss
2. H.C.D. - Extroverted-Normal Ss
3. H.C.D. - Introverted-Neurotic Ss
4. H.C.D. - Introverted-Normal Ss
5. L.C.D. - Extroverted-Neurotic Ss
6. L.C.D. - Extroverted-Normal Ss
7. L.C.D. - Introverted-Neurotic Ss
8. L.C.D. - Introverted-Normal Ss

**Abbreviations**

H.C.D. - High Cognitive Differentiation
L.C.D. - Low Cognitive Differentiation
Ss - Subjects

A list of all students, of all categories, is prepared and each one is assigned only to one stratum. Then after a random sample of the adolescent
students within each stratum is drawn. That is why, this type of sampling is known as stratified random sampling.

Here, stratified random sampling is reckoned suitable and more advantageous over simple random sampling because its each stratum is homogenous which admits small variations within it. Therefore, a small sample within each stratum is very likely to be a representative of that subclass within the population. Thus, the total sample of a much smaller size would then represent the entire population which reduces the cost of study. Furthermore, the stratification of the population is likely to produce more precision than simple random sampling but requires a more thorough and detailed knowledge of the population for the stratification to be successful (Mohsin, 1984).

In order to tap cognitive differentiation and personality dimensions, namely, extraversion and neuroticism as the independent variables in the present study, Cognitive Differentiation Grid and Junior Eysenck Personality Inventory (Hindi version) were administered to 854 Class X standard boys. The adolescent population could be divided into various homogenous strata according to the above specific characteristics. After scoring cognitive differentiation, subjects were classified into highly cognitively differentiated group and low cognitively differentiated group through extreme group technique with the help of Q₁ and Q₃ as cutting points in the case of cognitive differentiation. The (rounded off) scores corresponding to Q₁ and Q₃ were 49.25 and 54.70 respectively. Thus, the subjects having the same value or less than (Q₁) 49.25 were identified as low cognitively
differentiated groups whereas Ss having the same score or more than \((Q_3) 54.70\) were identified as high cognitively differentiated group.

After scoring JEPI scores of the subjects on E, N and L dimension of personality were obtained eliminating the high lie score having above mean (7.2) as a criteria and dropping Ss of below the age of 14 and above 17 years. The remaining purer cases for tapping extraversion and neuroticism dimension were selected to meet the requirement of a 2x2x2 factorial design.

In the present study each factor is to be varied at two levels. In case of extraversion, subjects were classified into introverted-extraverted group with the help of \(Q_1\) and \(Q_3\) as cutting points which were rounded off to 11 and 16 respectively. Thus, the subjects having the same value or less than \((Q_1) 11\) were identified as introverted subjects whereas Ss having the same score or more than \((Q_3) 16\) were identified as extraverted subjects. In the same way, in case of neuroticism, Ss were classified into normal-neurotic group through the same opposite extreme group technique. Thus, the subjects having the same value or less than \((Q_1) 7\) were identified as normal subjects whereas Ss having the same score or more than \((Q_3) 13\) were identified as neurotic subjects.

Thus in a 2x2x2 factorial design having atleast 40 subjects in each cell, a total number of 320 subjects were randomly drawn following the stratified random sampling technique. The particulars of the finally selected sample is shown in Table No. 3.2.
### Table No. 3.2 (a)
Particulars of the sample

<table>
<thead>
<tr>
<th>Groups</th>
<th>Extravert</th>
<th></th>
<th>Introvert</th>
<th></th>
<th></th>
<th></th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Normal</td>
<td>Neurotic</td>
<td>Normal</td>
<td>Neurotic</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>High Cognitive Differentiation</td>
<td>(S₁)</td>
<td>40</td>
<td>(S₃)</td>
<td>40</td>
<td></td>
<td></td>
<td>160</td>
</tr>
<tr>
<td></td>
<td>(S₂)</td>
<td>40</td>
<td>(S₄)</td>
<td>40</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Low Cognitive Differentiation</td>
<td>(S₅)</td>
<td>40</td>
<td>(S₇)</td>
<td>40</td>
<td></td>
<td></td>
<td>160</td>
</tr>
<tr>
<td></td>
<td>(S₆)</td>
<td>20</td>
<td>(S₈)</td>
<td>40</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>80</td>
<td>80</td>
<td>80</td>
<td>80</td>
<td></td>
<td></td>
<td>320</td>
</tr>
</tbody>
</table>

N= 320, n=40
3.3 TOOLS :-

I. OCCUPATIONAL ASPIRATION SCALE :

(DEPENDENT VARIABLE MEASURE)

The occupational aspiration scale is constructed and standardized by Hasan and Shukla (1998). Conceptually occupational aspiration has been defined as the orientation towards occupational goal (Haller & Miller, 1963). Operationally it consists only in the continuum of difficulty which is the occupational hierarchy. Here in the construction of present scale, aforementioned operational definition has been accepted.

The scale in its final form is intended to measure two types of level of occupational aspirations:

1. Idealistic level of aspiration and
2. The realistic level of aspiration

For constructing idealistic level of aspiration scale, out of 240 occupations, 80 occupations were selected on the basis of rank ordering of representative occupations representing all levels from day-to-day labour to top business professionals on a five paint scale of general social standing on 150 subjects (75 males & 75 females) drawn from the professionals representing a cross section of society. The respondent's estimate of an occupation were then averaged, and the average score were placed in rank order. The initial 240 vocations were taken from National Classification of Occupations (N.C.O.) published by the Ministry of Labour Employment and Rehabilitation, Govt. of India. Same group of experts
was employed to take prestige rating of another set of 80 occupations for utilizing in the scale of realistic level of occupational aspiration.

Social standing of each occupation was calculated out of a rank of 100 by multiplying frequency rating in each of the five categories by 1.0, 0.8, 0.6, 0.4, 0.2 respectively. Thus, all ‘0’ to ‘9’ depending upon their ranks which ranged from ‘20’ to ‘95’ and above. Eighty out of 240 occupations with different prestige values were arranged in mixed order in eight multiple choice items.

**Idealistic and Realistic Level of Aspiration**

In the present study two types of vocational aspiration, i.e.

1. Idealistic Vocational Aspiration and

2. Realistic Vocational Aspiration have been identified.

1. Idealistic Vocational Aspiration refers to that aspiration which the individual considers best for him/her if he/she is free to choose any vacation.

2. Realistic Vocational Aspiration refers to that aspiration for which the individual is sure of getting without difficulty.

In order to assess the idealistic level of aspiration, the subjects are asked to choose the occupation for which he is free to choose any of the given occupations.

For assessing the realistic level of occupational aspiration, the subjects are asked to choose the occupation for which they are sure of getting it.
<table>
<thead>
<tr>
<th>S. No.</th>
<th>Idealistic level of Occupational Aspiration</th>
<th>Realistic level of Occupational Aspiration</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Of the job listed in this question which one would choose if you were FREE TO CHOOSE ANY of them you wished.</td>
<td>Of the jobs listed in this question, which is the BEST ONE, you are REALLY SURE GET when your SCHOOLING IS OVER</td>
</tr>
<tr>
<td>2.</td>
<td>No. of items = 8 occupations of various prestige values contained in each item = 10.</td>
<td>No. of items = 8 occupations various prestige values contained in each item=10</td>
</tr>
</tbody>
</table>

**Administration:**

The Occupational Aspiration Scale (OAS) can be administered in a group testing situation. The items are prefaced by a set of written instructions, which the tester reads over with the group at the beginning of the test period. These instructions and the first item are reproduced below-

These instructions are in Hindi:

इन प्रश्न में व्यवसायों की पसंद से संबंधित कुछ प्रश्न दिये गये हैं। प्रत्येक प्रश्न में कुल दस व्यवसाय दिये गये हैं। इन दस व्यवसायों में से आपको अपनी पसंद के अनुसार कोई एक व्यवसाय का चयन करना है। आप प्रत्येक व्यवसाय को सावधानीपूर्वक पढ़िए और स्वतंत्र और निष्पक्ष होकर जो व्यवसाय आपको सहज रूप से पसंद हो, उस पर (✓) का चिन्ह लगाइए। आपके द्वारा प्राप्त जानकारी पूर्णतः गोपनीय रखी जायेगी। इसका उपयोग केवल शैक्षक के लिये किया जायेगा।

प्रश्न:— नीचे दिए गए व्यवसायों में से किसी भी व्यवसाय को अपनी इच्छानुसार चुनने की पूरी स्वतंत्रता हो तो आप किसे चुनेंगे?

1. क्लीनर (साफ-साफ करने वाला)
2. फिल्टर एवं सेपरेटर ऑपरेटर
3. खंड विकास अधिकारी
4. रबर मोल्डर
5. मोटर कार मिस्ट्री
6. होटल रिसोज्समिंट
7. कैथियर
8. टेक्सी ड्राइवर
9. एयर-क्राफ्ट इंजिन मेकनिक
10. अर्थशास्त्री अन्येषक
Prashn :- नीचे दिए गए व्यवसायों में से किस व्यवसाय की आप आकांक्षा करते हैं, जिसके बारे में आपको यह निश्चय हो कि वह आफ्को अवश्य मिल सकता है?

1. केन कटर
2. बॉयलर बनाने वाला
3. सांख्यिकीय विशेषज्ञ
4. बटलर (खानसामा)
5. हेड कलर
6. आइसक्रीम बनाने वाला नाम
7. पेथलोजिस्ट
8. माली
9. तकनीकी सहायक
10. सी.आई.डी. इन्स्पेक्टर

Scoring Instructions :-

All the items are scored in the same way. There are ten alternatives for each question, only one alternative may be checked.

Weighted scores have been calculated on the basis of the social standing of the occupations.

The scores for each alternative are as follows -

<table>
<thead>
<tr>
<th>Alternative</th>
<th>Weighted Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>2</td>
<td>5</td>
</tr>
<tr>
<td>3</td>
<td>9</td>
</tr>
<tr>
<td>4</td>
<td>3</td>
</tr>
<tr>
<td>5</td>
<td>7</td>
</tr>
<tr>
<td>6</td>
<td>4</td>
</tr>
<tr>
<td>7</td>
<td>8</td>
</tr>
<tr>
<td>8</td>
<td>1</td>
</tr>
<tr>
<td>9</td>
<td>6</td>
</tr>
<tr>
<td>10</td>
<td>10</td>
</tr>
</tbody>
</table>
Norms:

Norms have been determined by administering the scale on class 10th students belonging to different age, sex, residential and cultural group.

Percentile rank with respect to grade was determined.

<table>
<thead>
<tr>
<th>Percentile</th>
<th>Norms for Class X Student</th>
</tr>
</thead>
<tbody>
<tr>
<td>99</td>
<td>74</td>
</tr>
<tr>
<td>90</td>
<td>73</td>
</tr>
<tr>
<td>80</td>
<td>70</td>
</tr>
<tr>
<td>75</td>
<td>66</td>
</tr>
<tr>
<td>70</td>
<td>60</td>
</tr>
<tr>
<td>60</td>
<td>65</td>
</tr>
<tr>
<td>50</td>
<td>53</td>
</tr>
<tr>
<td>40</td>
<td>50</td>
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<tr>
<td>30</td>
<td>49</td>
</tr>
<tr>
<td>25</td>
<td>47</td>
</tr>
<tr>
<td>20</td>
<td>44</td>
</tr>
<tr>
<td>10</td>
<td>40</td>
</tr>
<tr>
<td>05</td>
<td>30</td>
</tr>
</tbody>
</table>

Mean = 52.15  
S.D.=7.44

Reliability:-

Test-retest reliability of the realistic and idealistic level of occupational aspiration scale was worked out. The coefficient of stability for the idealistic and realistic LOA scale was found to be 0.74 and 0.71 respectively (N=500).

Validity:-

The scale has been validated against Grewal’s occupational aspiration scale. The validity coefficient was found to be 0.68.
II. COGNITIVE DIFFERENTIATION GRID (CDG) 
(INDEPENDENT MEASURE)

Operationally cognitive differentiation has been defined as the ability to differentiate among job titles on the basis of certain vocationally relevant variables.

Cognitive differentiation grid (CDG) constructed by Manchanda and Hasan (1998) has been used as independent measure for cognitive differentiation ability of Ss. The grid uses a modification of Kelly’s (1955) Repertory Grid Technique to assess cognitive differentiation. The instrument uses a grid format similar to cognitive differentiation grid developed by Bodden (1970) and used by several researchers from time to time to measure the cognitive complexity (Bodden & Klein, 1972; Bodden and James, 1976; Neimeyer and ebben, 1985; Brown, 1987; Neimeyer et al, 1989; etc.).

In this grid 12 occupational titles (teacher, beautician, news photographer, sales marketing executive, interior decorator, librarian, general merchant, tailor, insurance agent, computer operator, architect, bank clerk) across the top to the grid and twelve vocationally relevant constructs (eg. income, power, peace, respect, satisfaction, orderliness, travel, interest, social importance, creativity future, education) along the side of the grid have been used. Subjects rated each occupation on the basis of each vocational constructs utilizing a 6-point Likert Scale.

The vocationally relevant constructs (job values) used in this grid were obtained from the list of the 80 jobs values suitable under Indian
conditions. Because of sharp cultural divergence, 12 jobs values were selected from the list through method of Cluster Analysis and obtained β coefficient. Occupational title were obtained from National Classification of Occupations published by Ministry of Labour, Employment & Rehabilitation, Govt. of India (1968).

Scoring of the cognitive differentiation grid can be accomplished by comparing each occupational title's rating with the other occupational title's rating for every job values by using the paired comparison technique. In comparing each pair a score of 1 is given for differentiated rating and scores of 0 (zero) is given for similar ratings. This comparison procedure is done for all possible comparisons and score for each comparison are added to yield a total score. For every job values 66 possible pair combination of occupational titles rating will be made which yield maximum score of 66. Thus in this grid of 12 x 12 matrix, the highest score is 792 (i.e. 12x66) for all vocationally relevant variables (Job values). The higher the score, the higher the cognitive differentiation level or the higher the level of cognitive complexity. Thus cognitive differentiation score represents the degree of differentiation among 12 occupations given in the grid on the basis of 12 vocationally relevant variables.

The test-retest reliability coefficient of correlation for the grid is found to be 0.80 after an interval of two weeks. Similar coefficients of correlation (.82) have also been reported for Bodden’s (1970) Cognitive Differentiation Grid.
III. JUNIOR EYSENCK PERSONALITY INVENTORY (JEPI)
(Independent Measure)

Since the population under the investigation was that of X grade adolescent students and the two independent variables were Extraversion and Neuroticism as specified by Eysenck, to measure these E and N dimensions of personality, a Hindi version of Junior Eysenck Personality Inventory (JEPI) prepared by Helode (1985) was reckoned suitable. This test is based on original JEPI constructed by S.B.G. Eysenck (1965) and mainly useful to tap E and N dimensions in children ranging in age from 13 to 16 years. It has 50 items in all, of which 20 are for tapping extraversion (E), 20 for neuroticism (N) and 10 for measuring to tell a lie (L). Thus, it has three sub-scales E, N & L.

The inventory is highly reliable as its split-half reliabilities for the scales were calculated by Rulon’s (odd-even) formula which does not require correction for length. The overall split-half reliabilities of the E, N and L scales of JPEI (Hindi version) are 0.767; 0.835 and 0.754 respectively. The test-retest over all reliability for scale E is 0.638, for scale N is 0.703 and for scale L is 0.511 after a one month time gap between test and retest.

This inventory is found to be valid as its concurrent and construct validities were established by correlating its subscales age-wise with those of S.B.G. Eysenck’s (1965) original JPEI. The overall correlations for 413 boys between the E, N & L scale of JEPI (Hindi version) and JEPI (original) turned out to be 0.456, 0.465 & 0.565 respectively. Thus in the present
study a Hindi version of JEPI is used to measure the personality dimensions like E, L & N as well as L of high school students with an applicable degree of scientific ness. There is no time limit for the test. Generally, the subjects take 20 to 30 minutes to complete the test. Each question had two alternatives answer, yes or no. Subjects were required to give their opinions by putting (√) mark for 'yes' and (X) mark for 'no'.

Scoring of test was done according to the scoring system prescribed by author of the inventory. There is a separate scoring key for E, N and L. If the response given by a subject matches with the scoring key then subject is awarded 1 mark. Thus the maximum possible score for E, N and L is 20, 20 and 10 respectively. Higher scores on these sub-scales indicated greater magnitude of the corresponding dimension of personality.
3.4 PROCEDURE :-

After explaining the objectives of the research work, permission was obtained from the principals of the selected schools to administer the questionnaires to the students of class X standard. A good rapport was established with subjects. It was assured that subject's responses and their identities would be kept in strict confidence and not disclosed to anywhere. Thus, they are free to give their answers comfortably and honestly, whatever they felt. In this way, Ss were encouraged to give their proper cooperation during the testing.

To get a final sample of at least 40 cases in each cell of 8 cells of 2x2x2 factorial design, stratified random sampling method was used. Details of sampling procedure has been given under the caption “Universe and Sample (3.2). From initial population of 884 male students, first of all cognitive differentiation grid by Manchanda and Hasan (1998) was administered under laboratory like condition, in a group of 10 to 20 students at a time with the help of class teachers. All the doubts raised by the subjects were cleared by thorough explanations. Generally, the subject took 40 to 50 minutes to complete the test.

After that, Hindi adaptation of JEPI prepared by Helode (1985) was administered. The printed instructions given on the cover page of the questionnaire were explained to the subjects before the administration. Generally, the subject took 20 to 30 minutes to complete the test.
After this the scoring was completed according to the scoring system prescribed by the authors of the tests. Then after, subjects were classified into with high and low cognitively differentiated, neurotic and normal and extraverted and introverted groups by using two opposite extreme groups technique with the help of $Q_3$ and $Q_1$, as cutting point. Thus, using stratified random sampling technique, final samples were selected having 40 cases in cell of 8 cells design, making a total of 320 subjects.

Finally, identified 320 cases were subjected on occupational aspiration scale prepared by Hasan and Shukla (1998) to measure their idealistic and realistic vocational aspiration.

After obtaining the responses of all 320 cases on occupational aspiration scale, the scale was put to scoring as prescribed by the authors of the scale as described under caption ‘tools’. The obtained data were further analysed by using relevant statistical tools as presented in the next chapter “Analysis and Interpretation.”