CHAPTER-III

METHODOLOGY

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CHAPTER-III

METHODOLOGY

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This chapter deals with objectives, hypothesis, sampling details, design, tests employed for gathering data, procedure for conducting the study and the statistical methods used for analysis.

3.1. Statement of the problem

“A study of Personality and its’ concurrent Psychological correlates of college going adolescents in respect of their medium of instruction”

3.2. Objectives

To fence the present study following objectives were formulated:

a) To study the difference between male and female adolescents in their personality.

b) To find out the variance in adolescents’ personality in relation to their medium of instruction.

c) To investigate the personality difference between male and female adolescents’ in relation to their medium of instruction.
d) To study and compare the level of achievement motivation of male and female college students belonging to English and Marathi medium.

e) To find out the differences between students of English and Marathi medium on their level of achievement motivation in respect of their gender difference.

f) To find out the differences in achievement motivation between male and female college going students in relation to their medium of instruction; English and Marathi medium.

g) To study the difference between male and female adolescents in their level of self-confidence.

h) To find out the variance in adolescents’ level of self-confidence in relation to their medium of instruction.

i) To investigate the difference in level of self-confidence between male and female adolescents in relation to their medium of instruction.

j) To study the difference between male and female adolescents in their level of adjustment.

k) To find out the variance in adolescents’ level of adjustment in relation to their medium of instruction.

l) To investigate the difference in level of adjustment between male and female adolescents in relation to their medium of instruction.

m) To find out the variance in adolescents’ level of achievement motivation introduced from their personality.

n) To ascertain the predictive role of adolescents’ personality in their level of self-confidence.

o) To investigate the role of adolescents’ personality in their level of adjustment.
3.3. Hypotheses:

On the basis of literature review following hypotheses were formulated -

a) Male and female adolescents’ will be significantly different in their personality.

b) Adolescents’ personality will significantly vary in relation to their medium of instruction.

c) Male and female adolescents will be significantly different in their personality in relation to their medium of instruction.

d) The level of achievement motivation (n-ach) will not be significantly different for male and female adolescents.

e) English and Marathi medium adolescents will be significantly different in their level of achievement motivation (n-ach).

f) The level of achievement motivation (n-ach) of male and female adolescents will not significantly vary according to their medium for instruction.

g) Male and female adolescents will not be significantly different in their level of self-confidence.

h) Adolescents’ level of self-confidence will be significantly influenced by their medium of instruction.

i) The level of self-confidence will significantly vary between male and female adolescents in relation to their medium of instruction.

j) Male and female adolescents will be significantly different in their level of adjustment.

k) Adolescents’ adjustment level will significantly differ according to their medium of instruction.
l) Male and female adolescents will be significantly different in their adjustment level as per their medium of instruction.

m) Adolescents’ personality will significantly influence their level of achievement motivation.

n) Adolescents’ personality will be a significant predictor of their level of self-confidence.

o) Adolescents’ personality will be significant to determine their level of adjustment.
3.4. Methodology

3.4.1. Sample

The randomized sample of study was consisted of 200 adolescent with age of 18 + 1 years. The subjects were selected from all Arts, Commerce and science discipline of various junior colleges situated at Aurangabad city of Maharashtra State. The whole sample comprised of 100 adolescents belonging to throughout English medium and rest 100 were those belonging to Marathi medium. Both English and Marathi medium adolescents groups were made with equal number of male and female adolescents.

Table 3.1

Sample Distribution

<table>
<thead>
<tr>
<th>Gender</th>
<th>Medium of Instruction →</th>
<th>English</th>
<th>Marathi</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>n=50</td>
<td>n=50</td>
<td>n=100</td>
</tr>
<tr>
<td>Male</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Female</td>
<td></td>
<td>n=50</td>
<td>n=50</td>
<td>n=100</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>n=100</td>
<td>n=100</td>
<td>N=200</td>
</tr>
</tbody>
</table>
3.4.2. Variable

All variables considered in the present study were described under table 3.2 given below-

Table 3.2

Description of variables

<table>
<thead>
<tr>
<th>Name of Variable</th>
<th>Category of Variable</th>
<th>No. of Level /Dimensions</th>
<th>Name of Level</th>
<th>Nature of variable</th>
</tr>
</thead>
<tbody>
<tr>
<td>Medium of instruction</td>
<td>IV</td>
<td>2</td>
<td>• English • Marathi</td>
<td>Categorical (Nominal)</td>
</tr>
<tr>
<td>Gender</td>
<td>IV</td>
<td>2</td>
<td>• Male • Female</td>
<td>-</td>
</tr>
<tr>
<td>Personality</td>
<td>IV &amp; DV</td>
<td>2</td>
<td>• Neuroticism • Extroversion</td>
<td>Measurable (Continues)</td>
</tr>
<tr>
<td>Adjustment</td>
<td>DV</td>
<td>As a whole</td>
<td>-</td>
<td>Measurable (Continues)</td>
</tr>
<tr>
<td>Achievement Motivation (n-Ach)</td>
<td>DV</td>
<td>As a whole</td>
<td>-</td>
<td>Measurable (Continues)</td>
</tr>
<tr>
<td>Self-Confidence</td>
<td>DV</td>
<td>As a whole</td>
<td>-</td>
<td>Measurable (Continues)</td>
</tr>
</tbody>
</table>
3.4.3 Research design

To reach out the objectives of the present investigation following designs will be employed:

➢ 2 X 2 Factorial design

To study the main effect of gender difference and medium of instruction and also their interaction effect on all considered psychological measures, 2 X 2 factorial design was used as depicted below-

Table 3.3

<table>
<thead>
<tr>
<th>Medium of Instruction (A)</th>
<th>English (B1) N= 100</th>
<th>Marathi (B2) N= 100</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Male (A1) N= 100</td>
<td>A1B1 N= 50</td>
<td>A1B2 N= 50</td>
<td>100</td>
</tr>
<tr>
<td>Female (A2) N= 100</td>
<td>A2B1 N= 50</td>
<td>A2B2 N= 50</td>
<td>100</td>
</tr>
<tr>
<td>Total</td>
<td>100</td>
<td>100</td>
<td>200</td>
</tr>
</tbody>
</table>
All experimental groups are described as follows:

- A1 – Male adolescents
- A2 – Female adolescents
- B1 – English Medium Adolescents
- B2 – Marathi Medium Adolescents
- A1B1 – Male adolescents using English language as medium of instruction
- A1B2 – Male adolescents using Marathi language as medium of instruction
- A2B1 – Female adolescents using English language as medium of instruction
- A2B2 – Female adolescents using Marathi language as medium of instruction

Correlational design:-

To identify the role of personality dimensions that are to predict adjustment, self-confidence and achievement motivation of adolescents, the present study dealt with single group different measures design (Type of within Group Design). In this design a group of 200 adolescents were measured on all considered aspects. The design is depicted as below-

Table 3.4 Correlation design

<table>
<thead>
<tr>
<th>Sample N= (200)</th>
<th>Personality</th>
<th>Adjustment</th>
<th>Achievement motivation</th>
<th>Self-confidence</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>√</td>
<td>√</td>
<td>√</td>
<td>√</td>
</tr>
</tbody>
</table>
3.4.1. Test and measurements

1. Agnihotri’s Self Confidence Inventory (ASCI):

This is developed by Rekha Agnihotri (1987). This consists of 50 items with two response alternatives viz., ‘Yes’ or ‘No’. Abbreviated name ASCI has been used so that the respondent may not decipher the real purpose of the test and fake good. For each item, a score of one is assigned for a response indicative of lack self-confidence. Hence, lower the score, higher would be the level self-confidence and vice versa.

2. Adjustment Inventory for School Students (AISS):

Adjustment Inventory for School Students (AISS) by A. K. P. Sinha & R. P. Singh (1971) developed to measures the adjustment level of school students. The adjustment inventory has been designed for use with Hindi knowing school students of India. The inventory seeks to segregate well-adjusted secondary school students (age group from 14 to 18 years) from poorly adjusted students in the three area of adjustment: Emotional, Social and Educational.

The inventory consisted 60 items, 20 items in each area out of three areas of adjustment. It is self-administering inventory. The questions were to be answered in "Yes" or "No". Coefficient of reliability was determined by (i) Split-half method, (ii) Test retest method and (iii) K-R formula which is depicted below in table

Validity co-efficient were determined for each item by biserial correlation method and only such items were retained which yielded biserial correlation with both criteria (i) Total Score and (ii) Area Score, significance level being .001. Inter
correlations among the three areas of the inventory were calculated. Percentile norms were computed for both males and females of all the three areas (Emotional, Social and Educational) of adjustment separately as also for the whole inventory. The subjects can be classified in respect to three areas, into five categories in accordance with the raw scores obtained by them on the inventory ie. Excellent, Good, average, unsatisfactory and very Unsatisfactory.

3. Maudsely Personality Inventory (MPI)

The Maudsley Personality Inventory (MPI) is a brief but standard as well as an easily administrated and scored inventory which is designed for assessing Neuroticism-Stability and Introvert-extrovert dimension of personality. It is suitable for normal and abnormal adults and also for adolescents. This test can be used as a group or an individual test, for person of age 15 to 16 years and above. The vocabulary required is that of the average newspaper. Although no time limit is enforced in the testing but the short scale takes about 3-5 minutes while the long scale takes about 15 to 20 minutes. Items for serial number 1 to 12 given on the front page of the test booklet make the short scale, while all the 48 items of the booklet constitute the long scale. Each of these items is answerable by making a tick mark into one of the three boxes, marked with “yes” “?” and “No”. Total 48 items of the test booklet are distributed among the two personality dimensions and scored as per given in the manual. Its Hindi and Panjabi version was prepared by S.S. Jalota and S.D. Kapoor in 1975. This test has a high reliability and validity measured by the test constructor.
4. Deo-Mohan Achievement Motivation (n-ach) Scale : (DMAMS)

The present scale is developed by Pratibha Deo & asha mohan in 1985. The scale consists of total 50 items in which 13 are negative and 37 are positive. The scale is self-rating type and can be administrate in a group with five points to rate viz always, Frequently, Sometimes, rarely and Never. The scoring device was simple stencil type. Two stencil keys are to be used one for positive items and one for negative items. A numerical weightage from 4 to 0 for positive item and the reverse of it for the negative items. The total score is the summation of all the positive and negative items scores. The minimum score obtained can be 0 and the maximum can be 200. Higher score indicating higher the achievement motivation within subjects.

The test-retest method was applied to obtain the reliability coefficient of the scale and found to be sufficiently high. As far as validity of this scale is concerned, the concurrent validity was also measured and found to be .54.

3.4.6. Data collection procedure

First of all the list of various junior colleges situated in the Aurangabad district of Maharashtra was prepared. For the selection of the sample various colleges were visited one by one. The written permission was sought out from the respective Principals after discussing the purpose of the present study. In order to finalize initial sample students of each college were requested to fill the personal information schedule which was intended to confirm their medium of instruction. On the basis of their information on personal schedule both English and Marathi medium adolescents students were randomly assigned into four experimental groups namely (A1B1)- Male adolescents using English language as medium of instruction,
(A1B2)- Male adolescents using Marathi language as medium of instruction, (A2B1)- Female adolescents using English language as medium of instruction and (A2B2) - Female adolescents using Marathi language as medium of instruction. Hence all four experimental groups were constituted as per sample distribution criteria. Before selecting students in sample their consent to participate in this study was taken into consideration. To obtain the data, selected students were administrated on the Maudsely Personality Inventory, Agnihotri’s Self Confidence Inventory (ASCI), Adjustment inventory for school students. Deo-Mohan Achievement Motivation (n-ach) Scale.

Before administration of the test, rapport was built with considered cohort of adolescents and they were also ensured that their answers and identity will be kept confidential. Tests were administrated one at a time in order to reduce fatigue and boredom effect. To fill the test subjects were given general instructions regarding each test and administrated after their assurance that they are able to fill response. Finally the data were obtained by using particular scoring pattern standardized for each test. To attain all the objectives of the present study, 2 X 2 factorial design and single group different measure design was employed. The obtained data were further statistically analysed.

3.5. Statistical Analysis

Looking into the aim of present research study the data was analysed under appropriate descriptive and inferential statistical techniques as follows-
3.5.1. Descriptive statistical

The mean (with graphical representation) and standard deviation of each variable for considered sample of adolescents were analysed.

3.5.2. Inferential statistical

- To study the difference between male and female adolescents in relation to their medium of instruction (English & Marathi) on their considered psychological aspects includes personality (MPI), self-confidence, achievement motivation (n-ah) and adjustment two way analysis of variance (2X2 ANOVA) was used.
- To study the adolescents’ personality type as a predictor of their self-confidence, achievement motivation (n-ah) and adjustment correlation & stepwise multiple regression analysis was employed.

Data were analyzed using the Statistical Package for Social Sciences (SPSS) version 17.0 (SPSS for Windows, 2009), and a p value of less than 0.05 and 0.01 was determined to be statistically significant.