CHAPTER NO.3

METHODOLOGY
Chapter 3 Methodology

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This chapter deals with Title of the problem, Statement of the problem, significance of the study, Purpose of the study, Scope to the study, Operational definition of the terms, Objectives and Hypotheses of the study, variables included in the study, research design, Tools used for the data collection, Data collection procedure, Statistical analysis and Limitations of the study.

3.1 Statement of the problem

The present study is concerned with the comparative study of certain personality characteristics and the study habits of both English and Marathi medium school going students. It also examines the effect of socioeconomic status on the student’s study habits as well as personality characteristics. It establishes the relationship of socioeconomic status and study habit as well as the personality characteristics of both English and Marathi medium school going students.

3.2 Title of the problem

“A STUDY OF CERTAIN PERSONALITY CHARACTERISTICS & STUDY HABITS OF HIGH SCHOOL STUDENTS”.

3.3 Significance of the Study

Education aims at tapping the potentialities of an individual to the maximum. Efforts are made to make the teaching–learning process more effective. Sometimes we hear that some student is bright and intelligent still he/she does not score good marks,
such instances show that many school children work far below than what could be expected of their level of intellectual functioning. Consequently, a great deal of intellectual potential is wasted.

There are many factors responsible for underachievement like motivation, study habits, attitude, attitude towards teacher and education, school and home background, concentration, mental conflicts, level of aspiration, self confidence, Examination fear, etc.

Students that practice study habits in their education may study in groups, individually or attend tutorials, study habits are reflection of the student’s culture. In other words, the study habits are nothing but an outcome of the total personality of the students.

The study of personality characteristics in the present work aimed at 14 different dimensions of the personality such as warmth, intelligence, emotional maturity, excitable, assertive, enthusiastic, superego strength, venturesome, dependent, individualistic, depressive, self-sufficient, controlled and tense. By working on some of the personality characteristics, researcher has obtained certain typical characteristic differences among the English and Marathi medium school going students.

### 3.4 Scope of the study

The main intention of the present study is to make a survey of the study habits of high school students specially class ix and x of English and Marathi medium school going students confined to an urban area of some districts of Marathwada region of Maharashtra state; their personality characteristics along with their socioeconomic status.
The study attempted to identify the type of relation between the dependent variable, personality characteristics and study habit and independent variable medium and gender as well as the effect of socio economic status on these two.

3.5 Objectives of the study

The present study aimed at constructing and testing a model for providing causal explanation of secondary school students study habit and personality characteristics in terms of student variable English and Marathi medium school going students, gender, academic class and socio economic status. Based on following mentioned objectives, the prime motivation is to compare the English and Marathi medium school going student’s personality characteristics and study habits. The aim is to establish if any relation between the personality characteristics and study habits. The following are main objective of the present study:

1. To study the personality characteristics of English Medium school going students.
2. To compare the English medium and Marathi Medium school going students on their personality characteristics and study habits.
3. To compare the personality characteristics of the male and female school going students of both English medium and Marathi Mediums.
4. To observe and analyse study habits of English Medium and Marathi Medium school going students
5. To find the relation between the study habits and personality characteristics of English and Marathi medium school going students.
6. To study the impact of socioeconomic status on certain personality characteristics of English Medium Marathi Medium school going students.

3.6 Operational definitions of the term

1) **Personality characteristics**: A personality characteristics includes an individual’s pattern of thought, feelings and behaviours that makes a person unique possesses the characteristics as participative, ego strength, obedient, expedient, timid, tough minded, zestful and confident altogether or one by one.

2) **Study habits**: “A Study habit includes student’s habits of comprehension, concentration, task orientation, study sets, interaction, drilling, supports, recording and language”.

3.7 Hypotheses

1) There will be a significant difference on following dimensions of personality characteristics of English and Marathi medium school going students.

   1) A (Reserved Vs participative)                                          5) H (Timid Vs Socially bold)
   2) C (Lower Ego Strength Vs higher Ego strength)                          6) I (Tough minded Vs Tender minded),
   3) E (Obedient Vs Assertive)                                             7) J (zestful Vs Individualistic)
   4) G (Expedient Vs Conscientious)                                        8) O (Confident Vs Apprehensive)

2) There will be a significant difference between Male and female school going students on their personality characteristics in following dimensions-

   1) A (Reserved Vs participative)                                          5) H (Timid Vs Socially bold)
   2) C (Lower Ego Strength Vs higher Ego strength)                          6) I (Tough minded Vs Tender minded),
   3) E (Obedient Vs Assertive)                                             7) J (zestful Vs Individualistic)
   4) G (Expedient Vs Conscientious)                                        8) O (Confident Vs Apprehensive)
3) High socio economic status of school going students will be higher on their following dimensions of Personality characteristics as compared to those school going students who belong to low socio economic status-

1) A (Reserved Vs participative)  
2) C (Lower Ego Strength Vs higher Ego strength)  
3) E (Obedient Vs Assertive)  
4) G (Expedient Vs Conscientious)  
5) H (Timid Vs Socially bold)  
6) I (Tough minded Vs Tender minded),  
7) J (zestful Vs Individualistic)  
8) O (Confident Vs Apprehensive)

4) There will be a significant effect of following interactions among independent variables on factors A, C, E, G, H, I, J and O of the personality characteristics of the students.

   Gender * Medium  
   Gender * Socio Economic Status  
   Medium * Socio Economic Status  
   Gender * Medium * Socio Economic Status

5) There will be a significant difference on the study habits of the English medium and Marathi medium school going students.

6) There will be a significant difference in the study habits among male and female school going students.

7) There will be a significant effect of following interactions among independent variables on school going students study habits.

   Gender * Medium  
   Gender * Socio economic status  
   Medium * Socio economic status  
   Gender * Medium * Socio economic status
8) There will be a correlation between personality characteristics and the study habits of English and Marathi medium school going students.

3.8 Methods and Procedure

Inferential statistics are the statistical processes by which conclusions are drawn in some way from certain facts or premises. By applying the inferential statistics one can obtain conclusions in his study. In applying the inferential statistics in social and behavioural sciences the probability of occurrence of events are predicted.

In studying some aspect of the behaviour of a population, it will not be possible to study the whole population. Only a portion of the population is chosen, and the results are attributed to the whole population. The sampling methods try to solve this problem. In studying a problem, hypothesis is formulated and tested and the errors involved in this are also determined.

In testing a hypothesis the inferential statistics provide several methods, like the chi square, the ‘t’ test, the critical ratio, Duncan’s Range Test, and the analysis of variance. The researcher can make use of any one of them and test his hypothesis, the basic subject-matter for all inferential statistics is the sampling, mostly representative sampling.

A small portion or group of people taken from the large population is called a sample. The process of selecting those people from the large population is called
sampling. According to D’Amato (1970) “a population is any complete collection of objects or things; a sample is any subtotal portion of a population.” There are several types of sampling. A sampling plan should specify how the elements are drawn from the large parent population and also how many elements are drawn.

Blalock (1960) stated that all sampling plans can be brought under two broad categories such as

(i) Non-Probability Sampling                (ii) Probability Sampling.


Statisticians believe that by applying the Probability Sampling plans it is possible to estimate error accurately that occurs in the estimation of the characteristics of the parent population by analysing the characteristics of the sample drawn from the parent population. Following are the types of probability sampling plans.


1) Simple Random Sampling Method

All the characteristics described above are applicable to the Simple Random Sampling Method. Mostly in all sampling plans with small populations this sampling method is included by the investigators in all social sciences. This method ascertains
that every element/person of the population has an equal and independent chance to be included in the sample and in the subsequent samples.

The simple random sampling method provides chance for every element in the population to be included in the sample. Therefore, the sample becomes a representative sample. The simple random sampling method is the basis upon which all other types of random sampling methods are designed. The researcher need not know the correct population size before planning the sampling. The sampling can be easily estimated from the samples drawn from the population.

This method fails to make use of the investigator’s knowledge about the population as well as this method does not include certain elements of the population in the sample. There is chance for greater sampling error in simple random sampling method compared to the stratified random sampling method of the same sample size. It is because of the presence of heterogeneous characteristics in the sample the error chance is greater.

3.8.1 Population and the Sample

The samples under study were taken from various schools of English and Marathi medium selected randomly located in Marathwada region (Aurangabad, Jalna, Beed, Latur, Parbhani). At first 1600 students were taken into account and out of them random 400 effective samples between the age group of 13 to 17 years studying in ix and x class from urban settings only belong to lower and higher socioeconomic status from each English and Marathi medium school and gender with equal break up for study.
### Table 3.1
Sample Distribution Table

<table>
<thead>
<tr>
<th>Gender</th>
<th>English Medium</th>
<th>Marathi Medium</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>High SES</td>
<td>Low SES</td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>(n=50)</td>
<td>(n=50)</td>
<td></td>
</tr>
<tr>
<td>Female</td>
<td>(n=50)</td>
<td>(n=50)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>(n=50)</td>
<td>(n=50)</td>
<td>(n=50)</td>
</tr>
</tbody>
</table>

\[N=400\]

### 3.8.2 Research Design:

#### Table 3.2 Design of the study

<table>
<thead>
<tr>
<th>Gender (C)</th>
<th>English Medium (A1)</th>
<th>Marathi Medium (A2)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>High SES (B1)</td>
<td>Low SES (B2)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>C1</td>
<td>A1 B1 C1</td>
<td>A2 B1 C1</td>
</tr>
</tbody>
</table>

2 x 2 x 2 factorial design was used.

\[A = \text{Medium of Learning} \quad B = \text{Socio-economic Status} \quad C = \text{Gender}\]

\[A1 = \text{English Medium} \quad B1 = \text{High SES} \quad C1 = \text{Male}\]

\[A2 = \text{Marathi Medium} \quad B2 = \text{Low SES} \quad C2 = \text{Female}\]
3.8.3 Variables used for Study

In the present study, following variables have been treated as independent variables.

a) Dependent Variables

Personality Characteristics is taken as the dependent variable. Cattell’s personality High School Personality questionnaire- form A consist fourteen factors, but out of these investigator has chosen only eight factors i.e. A, C, E, G, H, I, J, O.

Study habits score (i.e. Study habits total score) is taken as the dependent variable. The study habit Inventory consist of nine areas namely comprehension, concentration, task orientation, study sets, interaction, drilling, supports, recording and language”.

b) Independent Variables

1) Medium- English and Marathi
2) Gender- Male and Female
3) Socio-economic status- Higher and Lower

3.8.4 Psychometric Devices:

a) High School Personality Questionnaire Form-A (HSPQ)

The investigator searched for the theories of the personality and the means of measuring the totality of behavior. Cattell’s theory, of all numerous theories, is the only theory based on the principle of totality of behavior of the individual.

The HSPQ is a standardized test that can be given within a class period, to single individuals or in groups, to yield a general assessment of personality development. The HSPQ measures fourteen distinct dimensions or traits of personality which have been found by psychologists to come near to covering the total personality. By working with these fourteen scores, the psychologist can obtain predictions of school achievement, of vocational fitness, of danger of delinquency, of likelihood of leadership qualities, of need for clinical help in avoiding neurotic conditions, etc. The reading level of the test is adapted to ages 11 or 12 through 18 years. In this questionnaire there are one forty two (142) questions, each question have three alternatives namely a, b, c., student should asked to choose only one alternative. Researcher provided one booklet of HSPQ and separate answer sheet to each student.

**Scoring procedure for the HSPQ:**

In the HSPQ, there are totally 142 questions; three alternative answers are given in each question. The students are motivated to give only one answer for each question. A preliminary inspection was made to know whether the students are answering properly or not. Then the answers were scored according to weightage given by the author. The scoring was done for each student and for eight factors (A, C, E, G, H, I, J, O) out of fourteen factors. The scoring is done with the help of scoring key provided with the manual.
Reliability Coefficients of Single-and-Two Form (A + B)...

HSPQ

<table>
<thead>
<tr>
<th>Interval</th>
<th>Length</th>
<th>HSPQ Personality Factor</th>
<th>Number In Group</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>A</td>
<td>B</td>
<td>C</td>
</tr>
<tr>
<td>Immediate Retest</td>
<td>A+B</td>
<td>.94</td>
<td>.89</td>
</tr>
<tr>
<td></td>
<td>A or B</td>
<td>.86</td>
<td>.85</td>
</tr>
<tr>
<td>Retest after One Day</td>
<td>A+B</td>
<td>.91</td>
<td>.87</td>
</tr>
<tr>
<td></td>
<td>A or B</td>
<td>.85</td>
<td>.78</td>
</tr>
<tr>
<td>Retest after Six Months</td>
<td>A+B</td>
<td>.76</td>
<td>.74</td>
</tr>
<tr>
<td></td>
<td>A or B</td>
<td>.62</td>
<td>.60</td>
</tr>
</tbody>
</table>

From Baltes and Nassolraad

Validity of HSPQ

<table>
<thead>
<tr>
<th>Personality Factor</th>
<th>A</th>
<th>B</th>
<th>C</th>
<th>D</th>
<th>E</th>
<th>F</th>
<th>G</th>
<th>H</th>
<th>I</th>
<th>J</th>
<th>O</th>
<th>Q2</th>
<th>Q3</th>
<th>Q4</th>
</tr>
</thead>
<tbody>
<tr>
<td>One Form</td>
<td>.67</td>
<td>.69</td>
<td>.71</td>
<td>.63</td>
<td>.65</td>
<td>.68</td>
<td>.68</td>
<td>.72</td>
<td>.70</td>
<td>.58</td>
<td>.77</td>
<td>.61</td>
<td>.57</td>
<td>.74</td>
</tr>
</tbody>
</table>

b) Study Habit Inventory

Study Habit Inventory: Constructed by M. Mukhopdhyaya & B. N. Sansanwal, 1992.

This inventory used for to assess the study habits of research sample (High school students). There are fifty two (52) items including nine sub components of study habits. Each items has five alternatives i.e. Always, Frequently, Sometimes, Rarely,
Never; students were asked to choose only one alternative for each items. Each sub-components and items carry equal value.

**Scoring procedure:**

The inventory comprises 52 items pertaining to nine sub-components namely Comprehension, concentration, Task orientation, and Study sets, Interaction, Drilling, Supports, Recording and Language which characterize the basis of the study habits. The items have been drafted in affirmative (34 items) and negative (18 items) forms.

**Affirmative (+) Items:** 1, 2, 3, 4, 5, 6, 7, 8, 9, 11, 12, 13, 14, 15, 22, 23, 24, 25, 27, 29, 30, 31, 32, 34, 38, 39, 41, 43, 44, 46, 49, 50, 51, 52, (34 items).

**Negative(-) Items:** 10, 16, 17, 18, 19, 20, 21, 26, 28, 33, 35, 36, 40, 42. 45. 47, 48 (18 items)

Positive item should be given 4, 3, 2, 1, and 0 for responses ‘always’, ‘frequently’, ‘sometimes’, ‘rarely’ and ‘never’ respectively, where as for negative items should be given reversed as 0, 1, 2, 3, and 4 respectively.

**Internal Consistency:**

Internal consistency is evident—all the coefficient are significant at.01 level and they range between a minimum of .49 to a maximum of .87.

**Reliability of Study Habit Inventory:**

The reliability of the whole inventory was worked out by using split half method. The reliability coefficient is .91 which is fairly high and indicates that the inventory is reliable.
c) Socio Economic Status Scale

Socio Economic Status Scale constructed by Dr. Rajbir Singh, Radhey Shyam & Satish Kumar, 2006; It is used to determine the Socio economic status of the parents of the students under study.

The scale is comprised of twenty five (25) statements in all. The items in the scale are related to Caste/ Class, Occupation, Family education, Income, Housing, Relational network and Material and livestock possessions. Each statement has some alternatives, student should tick (✓) against the answer/alternative to their choice in box (□) provided for each response. The scoring procedure has been followed given as per instructions in the manual.

Reliability of SESS:

Coefficient of stability was calculated by test-retest method. One hundred subjects were administered the SES scale twice after a gap of one year. The coefficient of stability was found to be 0.653. Fifty subjects were administered the scale again after a gap of 30 days and the coefficient of stability was 0.944. For the internal consistency Cronbach alpha was calculated on normalized (with a mean of 50 and SD 10) T scores (N=500) and was found to be 0.79.

Validity of SESS:

To assess the validity of the questionnaire, manifold criteria were set. Firstly, 150 subjects were asked to rate on a three point scale, 1 indicates low SES. 2 indicate middle class SES and 3 indicates high SES category. Secondly the neighbors’ and colleagues of the respondent were also asked to rate the respondents SES. Thus, two types of criterion
scores were available i.e. self rating and other ratings. The ratings were correlated with the obtained SES scores, the coefficient of correlation between self and other’s rating was $r=0.98$. Self ratings correlated with SES score positively $=0.737$. Other’s rating also found to be correlated significantly with SES scores, $r=0.55$.

3.8.5 Data Collection Procedure.

The tests were administered on small group of subjects about 30 to 50 male and female students of each school selected for study after taking prior permission from the head of the concerned school and as per their convenience. The programme and time schedule were communicated to the respective heads of the schools selected. The required no. of pupils were selected and properly motivated to respond genuinely to all items in the data gathering tools instructions were given to them in detail for all the three tests (HSPQ, SHI and SESS). SESS test was administered on each group in the first instance for motivation purpose and the rest of the two i.e. SHI and HSPQ were administered on the selected group one by one after the break.

3.8.6 Scoring and Analysis

The collected data were scored following the procedures already described. The analysis was carried on the basis of objectives of the study and the hypotheses formulated employing appropriate statistical techniques. Tables and graphs were used wherever necessary to present the data.

3.9 Limitations of the Study

The study was confined to high school students, Moreover, the study was conducted in only some districts of Marathwada as well as very few schools have been
taken under survey. Only urban schools have been taken into considerations; schools in rural area were not considered. A wider coverage was not possible due to shortage of time. Though, the student investigator has taken utmost care while collecting data, possibility of some errors creeping in cannot be ruled out.

3.10 Statistical Analysis

The data were analyzed as follows; the mean (with graphical representation) and standard deviation of Dependent variables which are Personality characteristics and Study Habits of English and Marathi medium school going students were analyzed. Looking to the objectives of the present investigation, after the calculation of descriptive statistics; ANOVA techniques was employed. Then the Karl Pearson’s Product Moment Correlation coefficient has also been calculated to see the internal consistency among the dependent variables.

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