CHAPTER-3

METHDOLOGY
<table>
<thead>
<tr>
<th>Section</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>3.1</td>
<td>PROBLEM OF THE STUDY</td>
</tr>
<tr>
<td>3.2</td>
<td>OBJECTIVE OF THE STUDY</td>
</tr>
<tr>
<td>3.3</td>
<td>SAMPLE</td>
</tr>
<tr>
<td>3.4</td>
<td>VARIABLES OF THE STUDY</td>
</tr>
<tr>
<td>3.5</td>
<td>HYPOTHESES</td>
</tr>
<tr>
<td>3.6</td>
<td>DESIGN</td>
</tr>
<tr>
<td>3.7</td>
<td>TOOLS</td>
</tr>
<tr>
<td>3.8</td>
<td>DATA ANALYSES</td>
</tr>
</tbody>
</table>
METHODOLOGY

PROBLEM:

A STUDY OF PERSONALITY, LEVEL OF ASPIRATION AND ACADEMIC ACHIEVEMENT MOTIVATION AMONG COLLEGE STUDENTS.

OBJECTIVES:

The objectives of study are as under,

- To study some demographic variables in relation to personality among college students.
- To study some demographic variables in relation to level of aspiration among college students.
- To study some demographic variables in relation to academic achievement motivation among college students.
- To study the interaction in relation to some demographic variables between Personality and Level of Aspiration among college students.
- To study the interaction in relation to some demographic variables between Level of Aspiration and Academic Achievement among college students.
- To study the interaction in relation to some demographic variables between personality and academic achievement motivation among college students.
- To study the interaction of some demographic variables between personality, level of aspiration and academic achievement motivation among college students.
METHODOLOGY:

SAMPLE:

Four hundred college students were tested to know the relationship of their Gender, Stream and academic Status on personality, level of aspiration and academic achievement motivation. The sample of 400 college students from various colleges of Ahmedabad city was taken. To test the effect of Gender from this sample 200 female students and 200 male students were tested. To test the effect of Stream (faculty) of the study 100 female students and 100 male students from the Arts faculty and 100 female students and 100 male students from the Science faculty were selected. To test the effect of academic achievement motivation sample was selected on the base of students’ previous academic records. For this sample, 50 female students and 50 male students who scored high in last academic records - High Achievers, same as 50 female students and 50 male students who scored low in last academic records - Low Achievers in academics were selected from Arts faculty as well as from the Science faculty.

VARIABLES:

Independent Variable:

- Gender
  - Male
  - Female
- Stream of the study
  - Arts
  - Science
- Status
  - High Achievers
  - Low Achievers
Dependent Variable:

- The subjects’ Personality patterns
- The subjects’ Academic Aspiration
- Students’ Academic Achievement Motivation

Hypotheses:

1. There will be no significant difference between interaction of students’ Gender and their Stream and Status of study in relation to their Personality.
2. There will be no significant difference between male and female students in relation to their Personality.
3. There will be no significant difference between Arts and Science students in relation to their Personality.
4. There will be no significant difference between Status of students (High Achievers and Low Achievers) in relation to their Personality.
5. There will be no significant difference between interaction of students’ Gender and their Stream of study in relation to their Personality.
6. There will be no significant difference between interaction of students’ Gender and their Status of study in relation to their Personality.
7. There will be no significant difference between interaction of students’ Stream and their Status of study in relation to their Personality.
8. There will be no significant difference between interaction of students’ Gender, their Stream and Status of study in relation to their Decisiveness as a factor of Personality.
9. There will be no significant difference between male and female students in relation to their Decisiveness as a factor of Personality.
10. There will be no significant difference between Arts students and Science students in relation to their Decisiveness as a factor of Personality.
11. There will be no significant difference between Status of students (High Achievers and Low Achievers) in relation to their Decisiveness as a factor of personality.

12. There will be no significant difference between interaction of students’ Gender and their Stream of study in relation to their Decisiveness as a factor of Personality.

13. There will be no significant difference between interaction of students’ Gender and their Status of study in relation to their Decisiveness as a factor of Personality.

14. There will be no significant difference between interaction of students’ Stream and their Status of study in relation to their Decisiveness as a factor of Personality.

15. There will be no significant difference between interaction of students’ Gender, their Stream and Status of study in relation to their Responsibility as a factor of Personality.

16. There will be no significant difference between male and female students in relation to their Responsibility as a factor of Personality.

17. There will be no significant difference between Arts students and Science students in relation to their Responsibility as a factor of Personality.

18. There will be no significant difference between Status of students (High Achievers and Low Achievers) in relation to their Responsibility as a factor of Personality.

19. There will be no significant difference between interaction of students’ Gender and their Stream of study in relation to their Responsiblity as a factor of Personality.

20. There will be no significant difference between interaction of students’ Gender and their Status of study in relation to their Responsibility as a factor of Personality.
21. There will be no significant difference between interaction of students’ Stream and their Status of study in relation to their Responsibility as a factor of Personality.

22. There will be no significant difference between interaction of students’ Gender, their Stream and Status of study of study in relation to their Emotional Stability as a factor of Personality.

23. There will be no significant difference between male and female students in relation to their Emotional Stability as a factor of Personality.

24. There will be no significant difference between Arts students and Science students in relation to their Emotional Stability as a factor of Personality.

25. There will be no significant difference between Status of students (High Achievers and Low Achievers) in relation to their Emotional Stability as a factor of Personality.

26. There will be no significant difference between interaction of students’ Gender and their Stream of study in relation to their Emotional Stability as a factor of Personality.

27. There will be no significant difference between interaction of students’ Gender and their Status of study in relation to their Emotional Stability as a factor of Personality.

28. There will be no significant difference between interaction of students’ Stream and their Status of study in relation to their Emotional Stability as a factor of Personality.

29. There will be no significant difference between interaction of students’ Gender, their Stream and Status of study in relation to their Masculinity as a factor of Personality.

30. There will be no significant difference between male and female students in relation to their Masculinity as a factor of Personality.
31. There will be no significant difference between Arts students and Science students in relation to their Masculinity as a factor of Personality.

32. There will be no significant difference between Status of students (High Achievers and Low Achievers) in relation to their Masculinity as a factor of Personality.

33. There will be no significant difference between interaction of students’ Gender and their Stream of study in relation to their Masculinity as a factor of Personality.

34. There will be no significant difference between interaction of students’ Gender and their Status of study in relation to their Masculinity as a factor of Personality.

35. There will be no significant difference between interaction of students’ Stream and their Status of study in relation to their Masculinity as a factor of Personality.

36. There will be no significant difference between interaction of students’ Gender, their Stream and Status of study in relation to their Friendliness as a factor of Personality.

37. There will be no significant difference between male and female students in relation to their Friendliness as a factor of Personality.

38. There will be no significant difference between Arts students and Science students in relation to their Friendliness as a factor of Personality.

39. There will be no significant difference between Status of students (High Achievers and Low Achievers) in relation to their Friendliness as a factor of Personality.

40. There will be no significant difference between interaction of students’ Gender and their Stream of study in relation to their Friendliness as a factor of Personality.
41. There will be no significant difference between interaction of students’ Gender and their Status of study in relation to their Friendliness as a factor of Personality.

42. There will be no significant difference between interaction of students’ Stream and their Status of study in relation to their Friendliness as a factor of Personality.

43. There will be no significant difference between interaction of students’ Gender, their Stream and Status of study in relation to their Heterosexuality as a factor of Personality.

44. There will be no significant difference between male and female students in relation to their Heterosexuality as a factor of Personality.

45. There will be no significant difference between Arts students and Science students in relation to their Heterosexuality as a factor of Personality.

46. There will be no significant difference between Status of students (High Achievers and Low Achievers) in relation to their Heterosexuality as a factor of Personality.

47. There will be no significant difference between interaction of students’ Gender and their Stream of study in relation to their Heterosexuality as a factor of Personality.

48. There will be no significant difference between interaction of students’ Gender and their Status of study in relation to their Heterosexuality as a factor of Personality.

49. There will be no significant difference between interaction of students’ Stream and their Status of study in relation to Heterosexuality as a factor of Personality.

50. There will be no significant difference between interaction of students’ Gender, their Stream and Status of study in relation to their Ego Strength as a factor of Personality.
51. There will be no significant difference between male and female students in relation to their Ego Strength as a factor of Personality.

52. There will be no significant difference between Arts students and Science students in relation to their Ego Strength as a factor of Personality.

53. There will be no significant difference between Status of students (High Achievers and Low Achievers) in relation to their Ego Strength as a factor of Personality.

54. There will be no significant difference between interaction of students’ Gender and their Stream of study in relation to their Ego Strength as a factor of Personality.

55. There will be no significant difference between interaction of Stream and their Status of study in relation to their Ego Strength as a factor of Personality.

56. There will be no significant difference between interactions of students’ Gender, their Status of study in relation to their Ego Strength as a factor of Personality.

57. There will be no significant difference between interaction of students’ Gender, their Stream and Status of study in relation to their Curiosity as a factor of Personality.

58. There will be no significant difference between male and female students in relation to their Curiosity as a factor of Personality.

59. There will be no significant difference between Arts students and Science students in relation to their Curiosity as a factor of Personality.

60. There will be no significant difference between Status of students (High Achievers and Low Achievers) in relation to their Curiosity as a factor of Personality.
61. There will be no significant difference between interaction of students’ Gender and their Stream of study in relation to their Curiosity as a factor of Personality.

62. There will be no significant difference between interaction of students’ Gender and their Status of study in relation to their Curiosity as a factor of Personality.

63. There will be no significant difference between interaction of students’ Stream and Status of study in relation to their Curiosity as a factor of Personality.

64. There will be no significant difference between interaction of students’ Gender and their Stream of study in relation to their Status Dominance as a factor of Personality.

65. There will be no significant difference between male and female students in relation to their Dominance as a factor of Personality.

66. There will be no significant difference between Arts students and Science students in relation to their Dominance as a factor of Personality.

67. There will be no significant difference between Status of students (High Achievers and Low Achievers) in relation to their Dominance as a factor of Personality.

68. There will be no significant difference between interaction of students’ Gender and their Stream of study in relation to their Dominance as a factor of Personality.

69. There will be no significant difference between interaction of students’ Gender and their Status of study in relation to their Dominance as a factor of Personality.

70. There will be no significant difference between interaction of students’ Stream and Status of study in relation to their Dominance as a factor of Personality.
71. There will be no significant difference between interaction of students’ Gender, their Stream and Status of study in relation to their Self Concept as a factor of Personality.

72. There will be no significant difference between male and female students in relation to their Self Concept as a factor of Personality.

73. There will be no significant difference between Arts students and Science students in relation to their Self Concept as a factor of Personality.

74. There will be no significant difference between Status of students (High Achievers and Low Achievers) in relation to their Self Concept as a factor of Personality.

75. There will be no significant difference between interaction of students’ Gender and their Stream of study in relation to their Self Concept as a factor of Personality.

76. There will be no significant difference between interaction of students’ Gender and their Status of study in relation to their Self Concept as a factor of Personality.

77. There will be no significant difference between interaction of students’ Stream and their Status of study in relation to their Self Concept as a factor of Personality.

78. There will be no significant difference between interaction of students’ Gender, their Stream and Status of study in relation to their Level of Aspiration.

79. There will be no significant difference between male and female students in relation to their Level of Aspiration.

80. There will be no significant difference between Arts students and Science students in relation to their Level of Aspiration.

81. There will be no significant difference between Status of students in relation to their Level of Aspiration.
82. There will be no significant difference between interaction of students’ Gender and their Stream of study in relation to their Level of Aspiration.

83. There will be no significant difference between interaction of students’ Gender and their Status of study in relation to their Level of Aspiration.

84. There will be no significant difference between interaction of students’ Stream and their Status of study in relation to their Level of Aspiration.

85. There will be no significant difference between interaction of students’ Gender, their Stream and Status of study in relation to Academic Achievement Motivation.

86. There will be no significant difference between male and female students in relation to their Academic Achievement Motivation.

87. There will be no significant difference between Arts students and Science students in relation to their Academic Achievement Motivation.

88. There will be no significant difference between Statuses of students in relation to their Academic Achievement Motivation.

89. There will be no significant difference between interaction of students’ Gender and their Stream in relation to their Academic Achievement Motivation.

90. There will be no significant difference between interaction of students’ Gender and their Status of study in relation to their Academic Achievement Motivation.

91. There will be no significant difference between interaction of students Stream and Status of study in relation to their Academic Achievement Motivation.
DESIGN:

In this research to test the relations of Gender, Stream of the study and academic Status on personality among college students in relation to students’ aspiration as well academic achievements, three different tests were used. To measure the personality Singh’s Differential Personality Inventory (S.D.P.I ) was used. To measure the aspiration V.P.Sharma and A Gupta’s Educational Aspiration Scale and for academic achievement motivation Deo Mohan’s Academic Achievement Motivation Test and last/previous academic records of the students were used. Each selected student from the sample was tested for said three tests and scored as per manual of each test. Scores of the tests were analyzed by 2x2x2 Analysis of Variance.

<table>
<thead>
<tr>
<th></th>
<th>Boys</th>
<th>Girls</th>
<th>Total</th>
</tr>
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<tbody>
<tr>
<td></td>
<td>Arts</td>
<td>Science</td>
<td>Arts</td>
</tr>
<tr>
<td>High Achievers</td>
<td>50</td>
<td>50</td>
<td>50</td>
</tr>
<tr>
<td>Low Achievers</td>
<td>50</td>
<td>50</td>
<td>50</td>
</tr>
<tr>
<td>total</td>
<td>100</td>
<td>100</td>
<td>100</td>
</tr>
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</table>

A-Gender – A<sub>1</sub>–Boys, A<sub>2</sub>–Girls,

B-Stream – B<sub>1</sub>–Arts, B<sub>2</sub>–Science,

C- Status – C<sub>1</sub>–High Achievers, C<sub>2</sub>–Low Achievers
Tools:

Three different tests used are as under.

- Singh’s Differential Personality Inventory
- V.P. Sharma and A Gupta’s Educational Aspiration Scale
- Deo Mohan’s Academic Achievement Motivation Test

**Singh’s Differential Personality Inventory:**

(SDPI) *Singh’s Differential Personality Inventory* (SDPI) was developed by *Arun Kumar Singh* (2002). It is a self-report measure. The items of the test were largely constructed on the basis to analysis the various factors of personality. Ten different factors like decisiveness, responsibility, emotional stability, masculinity, friendliness, heterosexuality, ego strength, curiosity, dominance, self concept were measured by 15 various sentences/items for each factor. Each item in the test has two answers true or false. The student of the sample whose personality to be measured has to read the item carefully and mark (v) for true if he/she agree with the sentence and (√) for wrong for disagreeing. The scoring method is 1 (one) score for each right/true mark and 0(zero) for (√) true/false /disagree response. From ten-each personality factor can be scored differently. Each dimension can have maximum score of 15 (fifteen) as well 0(zero) can be minimum score. Higher score of any factor suggests greater possessiveness of concern trait; same as lower score on any dimension indicates poor possessiveness of concern dimension of personality.

*Singh’s Differential Personality Inventory* (SDPI) was treated with test–retest and internal consistency reliability method for establish reliability. To check test–retest reliability the test was administrated twice with a gap of 14 days on the sample of 100. The coefficient of the
test was found ranging in 0.73 to 0.86, which is significant. Whereas the internal consistency reliability was tested by odd-even split half method in which for each dimension of personality it was found highly significant with the coefficient in ranging 0.73 to 0.90. As it was used in Gujarat, for the convenience of the participant test was translated in Gujarati. The reliability in both the forms was found to be 0.83; which shows highly correlated with each other.

Validity of Singh’s Differential Personality Inventory (SDPI) against the score of Bell Adjustment Inventory adapted by Mohsin and Shamshad (1870) and personal and biographic variables was proved highly significant on both the criteria.

**Educational Aspiration Scale:(E.A.S.) :**

**Educational Aspiration Scale (E.A.S.)** was developed by Dr. V.P.Sharma and Dr. (Km) Anuradha Gupta (1996) to test the educational aspiration level of the individual at different grades of educational cedar. This scale was constructed on the bases of students’ past experience in terms of marks obtained and estimated goal set.

In the scoring there is no right or wrong answer but subject has to compare between a pair of statement by putting ‘X’ cross mark for the item. Responses were scored by ‘1’ or ‘0’.The maximum score of the scale can be ‘45’- as 45 items/pair of statement are there in the scale; and ‘0’ can be for minimum.

Reliability of **Educational Aspiration Scale (E.A.S.)** was established by test-retest method in which coefficient was found to be 0.98 and 0.80 for internal consistency by odd-even spilt half method. Whereas validity was tested against scholastic achievement found to be 0.69 and predictive validity with E.A.S. form-V 0.59. This scale was translated in
Gujarati and reliability of both the forms was found to be 0.79. The high coefficient suggests high correlation between the forms.

**DeoMohan Achievement Motivation Scale (DMAMS):**

*Deo Mohan Achievement Motivation Scale (DMAMS)* was developed by DeoMohan (2002) to measure the achievement motivation of students in general; not in any specific field. This scale can be administrated in a group, with five points to rate -‘Always’, ‘Frequently’, ‘Sometimes’, ‘Rarely’ and ‘Never’ with the scoring device of ‘4’ to ‘0’ numerical weight age for positive items and reverse for negative items. Maximum score of the scale can be ‘200’ as scale is having 50 sentences. Minimum score for this scale can be ‘0’ (zero).

Test–retest method was applied to obtain the reliability coefficient on three different groups of sample- Mixed Group, Males Females. The coefficient was found to be 0.69 for mix group, **0.67** for males and for females **0.78**. To test validity of the test scores of this test were correlated with the score of Aberdeen Academic Motivation Inventory of *Entwistle (1968)* where coefficient was **0.75**; which is quite high to validate the scale. Coefficient of this scale and its Gujarati version was found to be **0.74**.

**9. Data collection:**

Looking to the objective of the present research the sample of the 400 college students were selected from various colleges. From which 200 college students were males and 200 were females to test the Gender effect on Personality, Aspiration level and Academic Achievement. Further both subgroups were again equally subdivided according to Stream of the students- Arts and Science to examine the effect of the
Stream of the study on the dependent variables. To catch the effect students’ achievement on Personality, Aspiration level and Academic Achievement 200 students’ High Achievers And 200 Low Achievers were selected on the bases of their previous academic records. Obtained data will be analyzed by computing F-test (ANOVA) to see the effect of Gender, Stream of study and Status of study on Personality, Aspiration level and Academic Achievement.

Data analysis:

The obtained data is analyzed by using analysis of variance (ANOVA) technique in order to study main effects as well as interactional effect of the independent variables Gender of the students, Stream of their study and Status of students’ study on Personality. Again, in same way data was analyzed to know the effect of Gender, Stream of their study as well as their Status of study on Aspiration level of student. Interactional effect was also tested for the same variables. Main effects as well as interactional effect of the Gender of students, Stream of their study as well as their Status of study on students’ academic achievement motivation was even studied and tested by using **Analysis of Variance (ANOVA)** technique.