CHAPTER VI

SUMMARY AND CONCLUSIONS
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In the present investigation, an attempt was made to study "Some personality correlates of Academic Achievement". This chapter contains a summary of the total investigation activities - the problem, objectives, hypotheses, sample as well as tools used in the study. This chapter also includes the main findings of this study and suggestions for further research in this area.

STATEMENT OF THE PROBLEM

The title of the present study is "A Study of Some Personality Correlates of Academic Achievement".

OBJECTIVES

The following objectives have been formulated for the present study :-

1) To find out the relationship between need for achievement (n-Ach) and Academic Achievement.
2) To search the association between I - E Locus of control and Academic achievement.

3) To assess the magnitude and direction of relationship between Anxiety and Academic Achievement.

4) To study the relationship of n-Ach, LOC and Anxiety with Academic Achievement for groups formed on the basis of:
   i) Curriculum (Arts and Science);
   ii) Gender (Male and Female).

5) To explore the inter-relationship among n-Ach, LOC and Anxiety.

6) To find out whether significant mean differences exist between the groups formed on the basis of:
   i) Curriculum (Arts and Science),
   ii) Gender (Male and Female).

**HYPOTHESES**

The Hypotheses framed for the present investigation are as follows:

1) Subjects of Science faculty would have higher level of n-Ach than the subjects of Arts faculty.

2) The boys would have higher n-Ach than the girls.

3) The subjects of Science faculty would have more internal LOC than the subjects of Arts faculty.
4) The girls would be more externally controlled than the boys.

5) Subjects of Arts faculty would be more anxious than the subjects of science faculty.

6) Males and Females would differ on Anxiety.

7) The subjects having higher scores at the S.S.C. examination tend to opt for science curriculum as compared to Arts curriculum.

8) Academic Achievement of males and females differ significantly.

9) The science faculty subjects would score more marks at H.S.C. level than the Arts faculty subjects.

10) Higher n-Ach is associated with Internal LOC.

11) n-Ach and Anxiety would be negatively correlated.

12) External LOC and Anxiety are positively correlated.

13) n-Ach and Academic Achievement would be positively correlated.

14) High academic achievement would be associated with Internal LOC.

15) Anxiety would be negatively correlated with academic achievement.

16) The prior academic achievement is a good predictor of the subsequent academic achievement.

SAMPLE

The study encompassed the population of 2400 students studying in Arts and Science sections of the First year class in the colleges of Aurangabad city. It was decided to draw 20% students from
the population to constitute the sample for this study. The size of the sample, thus, arrived at was 480 Boys and Girls of First year class in the Arts and Science streams.

Since intelligence is an important correlate of Academic Achievement, an effort has been made to obtain a homogeneous sample by conducting the study on students of average intelligence only.

The students constituting the sample were administered the SPM by Raven. Subjects whose scores on this test lie in between 25th and 75th percentile (Grade III) were considered to be of average intelligence. The effective sample, thus, consisted of these 'Average' students only.

Gender-wise and Curriculum-wise distribution of effective sample is as under :-

<table>
<thead>
<tr>
<th>Gender</th>
<th>Arts</th>
<th>Science</th>
<th>Total</th>
</tr>
</thead>
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<tr>
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<td>103</td>
<td>206</td>
</tr>
<tr>
<td>Girls</td>
<td>103</td>
<td>103</td>
<td>206</td>
</tr>
<tr>
<td>Total</td>
<td>206</td>
<td>206</td>
<td>412</td>
</tr>
</tbody>
</table>

TOOLS

Following tools were used for the collection of data -

1) Standard Progressive Matrices (J. C. Raven)

2) Sentence Completion Test (B. N. Mukherjee)
3) I-E Scale (J. B. Rotter)

4) W-A Self-Analysis Form or Anxiety Scale (D. Sinha)


ANALYSIS OF DATA

The data were analyzed with the help of descriptive statistics i.e. Means and SDs for different variables i.e. n-Ach, LOC, Anxiety, S.S.C. Marks and H.S.C. Marks, the last two variables providing the measure of academic achievement. The above statistics are reported group wise, gender wise, as well as for the entire sample.

To evaluate the faculty-wise and the gender-wise differences in the various variables employed in this research, two-way multivariate analysis of variance (MANOVA) has been carried out with faculty and gender as the independent variables and n-Ach, LOC, Anxiety, S.S.C. Marks and H.S.C. Marks as the dependent variables. The pooled within cells correlations were also computed among the dependent variables.

Multiple correlations of S.S.C. marks and H.S.C. marks with n-Ach, LOC and Anxiety have been calculated separately for the four groups: Group I – Arts-male subjects; Group II – Arts-female subjects; Group III – Science-male subjects; Group IV – Science-female subjects and for the entire sample.

Two multiple regression analysis also have been carried out using S.S.C. marks and H.S.C. marks as the dependent variables.
RESULTS OF THE PRESENT STUDY

1) There are significant differences between mean scores of science faculty subjects and Arts faculty subjects on n-achievement ($F = 183.733$, $df_1 = 1$, $df_2 = 408$, $P < .001$); science faculty subjects scoring higher than the arts faculty subjects. This indicates that faculty has influence on n-achievement.

2) There are no significant differences in mean scores of boys and girls on n-achievement ($F = 2.375$). This indicates that gender has no influence on n-achievement.

3) There are significant differences in mean scores of science faculty subjects and arts faculty subjects on LOC ($F = 41.863$, $df_1 = 1$, $df_2 = 408$, $P < .001$). Since the lower score on LOC scale denotes internality it can be concluded that the subjects of science faculty have significantly more internal LOC than the subjects of arts faculty.

4) There are no significant gender differences on LOC ($F = 0.127$). Thus, gender has no influence on LOC.

5) There are significant differences in mean scores of science faculty subjects and arts faculty subjects on anxiety ($F = 137.444$, $df_1 = 1$, $df_2 = 408$, $P < .001$). Arts faculty subjects are found to be more anxious than the science faculty subjects.

6) No significant differences in mean scores of boys and girls on anxiety were observed ($F = 0.145$). This indicates that gender has no influence on anxiety.
7) The students having higher scores at the S.S.C. examination tended to opt for science curriculum as compared to arts curriculum (F = 96.202, df₁ = 1, df₂ = 408, P < .001).

8) There are significant differences in average marks of science faculty subjects and arts faculty subjects at H.S.C. examination (F = 169.366, df₁ = 1, df₂ = 408, P < .001). Science faculty subjects scored better at H.S.C. examination than arts faculty subjects.

9) Significant gender differences were found on academic achievement (For S.S.C. marks, F = 7.712, P < .01 and for H.S.C. marks, F = 11.045, P < .001). Females scoring higher than the males at both the levels, S.S.C. and H.S.C.

10) Higher n-achievement is found to be associated with internal locus of control (r = -0.682, P < .001; for entire sample).

11) n-Achievement is found to be associated negatively and significantly with anxiety (r = -0.655, P < .001; for entire sample).

12) External LOC and anxiety are found to be positively correlated (r = 0.636, P < .001, for entire sample).

13) Need for achievement and academic achievement are found to be positively correlated (r = 0.789, P < .001, for S.S.C. marks and r = 0.785, P < .001 for H.S.C. marks, both for entire sample).

14) Both S.S.C. marks and H.S.C. marks (academic achievement) were found to be associated with internal LOC for entire sample (for S.S.C. marks, r = -0.580, P < .001 for H.S.C. marks, r = -0.578, P < .001). Since
the higher scores on LOC scale denotes externality, these correlations imply that high academic achievement is associated with internality.

15) Anxiety was found to be negatively correlated with academic achievement for the total sample. (For S.S.C. marks, $r = -0.614, P < .001$; For H.S.C. marks, $r = -0.600, P < .001$). Thus, high anxiety went with low academic achievement.

16) Prior academic achievement was found to be a good predictor of the subsequent academic achievement. S.S.C. marks and H.S.C. marks are highly correlated ($r = 0.853, P < .001$, for entire sample). This indicated that the students who scored higher at S.S.C. examination also scored higher at H.S.C. examination.

**CONCLUSIONS**

On the basis of data and discussion of results, the hypotheses were tested and verified. Some of them were retained and some were rejected. Following conclusions were drawn:

1) Science faculty subjects scored higher than arts faculty subjects on n-achievement.

2) There are no gender differences on n-achievement.

3) Subjects of science faculty have significantly more internal Locus of control than the subjects of arts faculty.

4) There are no gender differences on LOC.

5) Arts faculty subjects are more anxious than science faculty subjects.
6) There are no gender influences on anxiety.

7) The students having higher scores at S.S.C. examination opted for science curriculum as compared to arts curriculum.

8) Science faculty subjects scored higher at H.S.C. examination than arts faculty subjects.

9) There are significant gender differences on academic achievement, female scoring higher than the males at both the levels, S.S.C. and H.S.C.

10) There is significant and positive correlation between n-Ach and internal LOC.

11) There is significant and negative correlation between n-Ach and anxiety.

12) There is significant and positive correlation between external LOC and anxiety.

13) There is significant and positive correlation between n-Ach and academic achievement.

14) High academic achievement is associated with internal LOC.

15) High anxiety is associated with low academic achievement.

16) There is significant and positive correlation between S.S.C. and H.S.C. marks.

EDUCATIONAL IMPLICATIONS

The findings of this study have revealed that low level of n-Ach, external locus of control and high level of anxiety hamper the
academic achievement. Parents need to see that their wards and children do not develop low level of n-Ach. Achievement motive is developed at an early age and it appears to depend to a large extent on the child's training in independence. The principal psychological factor in the development of n-Ach is the attitudes of the parents. Therefore, parents should instigate self-reliance and independent behaviour in the child.

Teachers and parents need to see that their wards and children do not develop externality. This is perhaps possible through careful nurturance of experiences that encourage self-reliance and independence. This should be taken care from early childhood; over protection and belief in factors like fate, chance etc. as casual factors in the outcome should be discouraged. A belief in internality, hard work, self-confidence, ability etc. have been found to be conducive in learning outcomes. Thus, children should be encouraged to develop internality.

When parents impose all their wishes on their children, they develop high anxiety which interferes with their cognitive processes. This results in lowering of achievement among children (High anxiety creates need to avoid learning situations). Warmth and support with little personal criticism are needed if the high anxiety learners have to do well.

Significant mean differences of different groups have been observed on variables studied. Arts and Science students were found to differ from each other significantly with respect to their academic achievement. This may be due to the difference in importance attached to the subjects of both the curricula and the study habits of students. To
bridge this gap changes have to be brought about in teaching methods, evaluation system and attitudes of pupils.

Another important finding of the study is the significant contribution of n-Ach, Locus of control and anxiety in predicting academic achievement. It followed logically that these variables can be of help to teachers, parents, guidance workers and counselors in understanding the phenomenon of academic failure and under-achievement among students. Through counseling and positive parental attitudes, positive personality and motivational factors may be fostered among children which in turn would modify their academic behaviour.

In short, the results of this study point to the necessity of giving better and highly structured series of training exercises to teachers, parents, those concerned with the education and bringing-up of children so that they are able to bring about a shift in their perception of control in the right direction. Children are to be helped in actualizing their potential, setting up goals which are realistic and managing their anxiety to a level that can optimise their achievement. These shifts in control expectancies, at times, can become instrumental in the return of confidence.

This study has focused the importance of factors like n-Ach, LOC, anxiety in academic achievement of students. Each factor by itself may not be a very reliable indicator of future academic performance. But taken together, they are likely to yield better prediction of student's success or failure than any one single predictor.
SUGGESTIONS FOR FURTHER RESEARCH

Following suggestions are being made to guide further researches in this area:

1) Institutional variables such as the climate of the school or college and the classroom, teacher characteristics, methods of teaching, interpersonal relationship etc. and background variables such as child-rearing practices, home environment, parent-child relationship, family size, type of family, socio-economic conditions of the family etc. of the learner should also been taken up besides personality variables studied here, to get an overall picture of the variables affecting academic achievement.

2) Studies should be carried out using other standardised tools to validate the results of the study.

3) The study may be conducted using factorial design in order to study the main and interactive effects.

4) Instead of taking the global achievement scores as the criterion variable, marks in different subjects could be taken up as in some subjects the students may achieve higher and in others low.
5) Follow up studies should be taken up in which training exercises should be given to students with high anxiety levels, external control and low n-Ach. This can help them in reducing their levels of anxiety to a moderate level, develop an internal locus of control and high level of n-Ach. The purpose should be to see the effect of training exercises on academic behaviour.

6) The same study may be replicated on another population to get wider generalization of results.