CHAPTER V

SUMMARY AND CONCLUSIONS

Introduction:

Academic underachievement is one of the serious problems that concern the teachers, parents as well as the country. A developing country cannot afford to lose the potential manpower reserves. Attempts have been made by earlier researchers to identify the underachievers in schools and evolve remedial measures to solve the problem.


In view of the fact remedial programmes for solving the problem of underachievement were rarely attempted in India, an experimental study was undertaken by the investigator.
Theoretical Rationale:

Theoretical rationale for the study was based on the investigations of Rapaport (1951), Hartman (1959), Gill (1959), Hummel (1952) on 'Adaptive Ego-functioning' and on the writings of Coombs and Smygg (1959), Kelley (1951), Maslow (1954), Rogers (1951) and Leckey (1945) on 'self-concept. An attempt was made to integrate the principles of adaptive ego-functioning, level of aspiration and self-concept in the counselling sessions.

Purpose of the Study:

The study was undertaken to determine whether or not high school male underachievers who participate in an academic counselling programme would achieve significantly higher in an academic achievement test at the conclusion of the counselling period in comparison with the control groups of non-counselling underachievers and normal achievers.

Hypotheses:

The following null hypotheses were formulated:

(i) There will be no significant difference in academic achievement among the adjusted means of counselled underachievers and non-counselling underachievers.

(ii) There will be no significant difference in academic achievement among the adjusted means of counselled underachievers and non-counselling normal achievers.
(iii) The adjusted means in academic achievement of the non-counseled underachievers and non-counseled normal achievers will not differ significantly.

Besides the major hypotheses cited above, an additional hypothesis was formulated as follows:

(iv) There will be no significant difference in academic achievement among the adjusted means of counseled underachievers belonging to the families of professional class group, merchant class group and clerical group.

### Schematic Representation of Research Design

Research Population ($N = 680$)

<table>
<thead>
<tr>
<th>Group Test of Scholastic Abilities (Verbal)</th>
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<tr>
<th>Academic Achievement Tests (Pre-test)</th>
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<tr>
<td>Regression Prediction</td>
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<tr>
<td>Underachievers ($n = 60$)</td>
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<tr>
<td>Counseled ($n = 30$)</td>
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<tr>
<td>Non-Counseled ($n = 30$)</td>
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<tr>
<td>Experimental</td>
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<td>Control I</td>
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<th>Control II</th>
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<tr>
<td>Academic Achievement Tests (Post-test)</td>
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<tr>
<td>Analysis of Covariance of Pre-test and Post-test</td>
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</table>
Covariance Design

<table>
<thead>
<tr>
<th>Subjects</th>
<th>Experimental</th>
<th>Control 1</th>
<th>Control 2</th>
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<tbody>
<tr>
<td></td>
<td>A</td>
<td>B</td>
<td>C</td>
</tr>
<tr>
<td></td>
<td>$x_1$ $y_1$</td>
<td>$x_2$ $y_2$</td>
<td>$x_3$ $y_3$</td>
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<tr>
<td>30</td>
<td>$\bar{x}_1 - \bar{y}_1$</td>
<td>$\bar{x}_2 - \bar{y}_2$</td>
<td>$\bar{x}_3 - \bar{y}_3$</td>
</tr>
</tbody>
</table>

A = Counselling Underachievers  
B = Non-counselling Underachievers  
C = Non-counselling Normal Achievers  
$x$ = Pre-test Achievement  
$y$ = Post-test Achievement

$F * .05$ and $.01$  
$t * .05$ and $.01$
Counseled Underachievers \((N = 30)\)

<table>
<thead>
<tr>
<th>Professional Class</th>
<th>Merchant Class</th>
<th>Clerical Class</th>
</tr>
</thead>
<tbody>
<tr>
<td>family ((n = 10))</td>
<td>family ((n = 10))</td>
<td>family ((n = 10))</td>
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Analysis of Covariance of Pre-test & Post-test.

Sample:

The research population for the study was drawn from the boys of 1st standard English Medium classes \((N = 680)\) studying in 12 High Schools in Mysore City (urban) with ages ranging from 14 to 16 years.

Definition of Underachiever:

The term 'underachiever' was operationally defined as one whose predicted achievement score, on the basis of regression-equation was 0.9 Standard Error of Estimate above the obtained achievement score.

Measuring Instruments:

Mental Abilities

For deriving the index of mental abilities, Group Test of Scholastic Abilities (GfSA - Verbal) standardized by the State Bureau of Educational and Vocational Guidance, Bangalore on a representative sample of 9150 pupils of standards VIII, IX and X was used. It had sub-tests such as Synonyms, Best Answer, Number Series, Analogies, Classification and Reading Comprehension. The reliability and validity were found satisfactory.
Academic Achievement:

A battery of Academic Achievement Tests in General Mathematics, General Science and Social Studies at the IX and X Standard levels for pre-testing and post-testing were prepared. The test-items were mostly of multiple-choice type and were prepared with the help of a committee of experienced teachers handling the subjects for several years. Reliability and Validity of the tests were found to be satisfactory.

Administration of Tests and Scoring:

All possible precautions were taken to administer the Group Test of Scholastic Abilities - Verbal, and Academic Achievement Tests on two consecutive days in the respective institutions in accordance with the standardized procedures laid down in the tests. Scoring of the answer sheets both for the GTSA (Verbal) and the Academic Achievement Tests were done with the help of the scoring keys prepared in advance. Only right answers were taken into consideration.

Identification of Underachievers:

The statistical techniques of 'regression' was employed and regression equations computed to predict the pupil-performance in academic achievement on the basis of his scholastic ability score. The predicted achievement score was compared with the obtained achievement score. Underachiever was one whose obtained achievement score was more than 0.9 Standard Error of Estimate below his predicted achievement score.
Formation of Groups:

Out of the total sample of 680 pupils, 90 were identified as under-achievers distributed in 12 high schools. 45 underachievers were chosen at random for inclusion in the Experimental (counselling) group. There were drop-outs after the first counselling session with the result, only 30 underachievers availed of the counselling help till the end. Another group of 30 underachievers constituted the Control group. The investigator kept an additional Control group of normal achievers (having no discrepancy between scholastic ability and academic achievement).

Counselling Sessions:

To conduct counselling sessions, in each school, a classroom was used. To avoid distraction, interviews were held before the commencement of the school during morning hours. The investigator chose to follow an eclectic approach, by adopting the techniques of both directive and non-directive counselling. Profiles of eminent men from different fields were used during counselling sessions with the following objectives:

(a) To stimulate the interests and abilities of the underachievers and arouse in them a desire for emulation.

(b) To enable them to identify themselves with the characters presented in profiles and have vicarious experiences.

(c) To assist them in developing ego-strength and raising the level of aspiration.
Moreover, frequent quizzes on school subjects and General Knowledge were conducted to modify their study-habits and improve academic achievement.

Outline of the Interviews

First Interview:

(1) Meeting of parents and underachievers.

(2) Discussion of pupils' problems related to their studies at home and school.

(3) Suggestion of remedial measures - (Attention, Interest and Effort).

(4) Assignment for the next session (An essay on 'What am I going to be in life and what should I do to realise this ambition?')

Second Interview:

(1) Asking the pupils to read out the essays.

(2) Discussion of the essays in terms of the clarity of goal and the level of aspiration.

(3) A tape-recorded talk on 'Attention, Interest and Effort'. Asking the pupils to summarize the talk.

(4) Assignment for the next session (An essay on the subject related to his vocational goal).

Third Interview:

(1) Check on homework, its quality and suggestions for improvement.

(2) A tape-recorded talk on 'Sir Isaac Newton' followed by a discussion of his theory.

(3) Assignment for the next session (An essay on an eminent scientist and his contribution. Preparation for a quiz on the first two chapters in General Science, Mathematics and Social Studies).
Fourth Interview:

(1) Check on homework and discussion.

(2) Quiz in General Science and Social Studies.

(3) Reading out the story of 'A greater teacher indeed!' (To modify their attitude toward homework).

(4) Assignment for the next session (Preparation for General Knowledge Quiz)

Interviews Five Through Ten:

(1) Profiles of eminent men such as Hans Christian Anderson, Srinivasa Ramanujan, Sir C.V. Raman and Carl Gauss were read out and discussed.

(2) Progress of the pupils watched in terms of their performance in the series of quiz programmes on school subjects conducted during the counselling sessions.

(3) Pupils were asked to write on any aspect of school life that impressed them most.

(4) Review of the performance of pupils in class tests and suggestions for improvement.

(5) Stress on improvement in academic achievement till the optimal level was reached.

(6) Pupils were told that their performance in the public examination would be watched by the investigator with great expectations.

Post-test:

After allowing a gap of one month from the last counselling session, post-test was conducted for pupils in the Experimental and Control Groups (N = 90). Data collected in the post-test were subjected to Analysis of
Covariance to answer two questions:

(a) Whether the counselled underachievers improved their scores in comparison with the non-counselled underachievers and non-counselled normal achievers.

(b) Whether, among the counselled, those belonging to professional class families scored better than those from merchant class and clerical class families.

Results and Conclusions:

(1) Hypothesis I predicted that there will be no significant difference in academic achievement among the adjusted means of counselled and non-counselled underachievers.

This has been rejected on the basis of the analysis of data.

The academic achievement of the counselled underachievers was significantly greater (at .01 level) than that of the non-counselled underachievers.

(2) Hypothesis II predicted that there will be no significant difference in academic achievement among the adjusted means of counselled underachievers and non-counselled normal achievers.

This has also been rejected on the basis of the analysis of data.

The academic achievement of the counselled underachievers was significantly greater (at .01 level) than that of the non-counselled normal achievers.
(3) Hypothesis III predicted that the adjusted means in academic achievement of the non-counselling underachievers and non-counselling normal achievers will not differ significantly.

This has been accepted on the basis of the analysis of data.

(4) Hypothesis IV predicted that there will be no significant difference in academic achievement among the adjusted means of counselled underachievers belonging to the families of Professional Class, Merchant Class, and Clerical Class.

This has been rejected on the basis of the analysis of data.

While there was no significant difference in academic achievement among counselled underachievers belonging to Merchant Class and Clerical Class, the underachievers belonging to the Professional Class differed significantly from the other two groups at .01 level.

This study has demonstrated that counselling could help the underachievers to improve their academic achievement. Therefore, there is a clear-cut need for the establishment of a Guidance and Counselling Centre in every school with a full-time counsellor.