CHAPTER III

REVIEW OF RELATED STUDIES

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References
3.0 Introduction

The present investigation addresses itself to the study of some psycho-social correlates of academic achievement of secondary school girls in Kheda district. The problem as it appears is very simple and straightforward. But when it comes to research there are various problems viz. tools for gathering data, research design for adequate interpretations and sampling procedure. Therefore a review of the related studies and researches done in the area is very necessary and useful.

3.1 Importance of the Review

Review of the past researches gives insight into the present problems. Many angularities and rough surfaces of the present problem can be straightened and made smooth with the help of the past researches.

The review helps the investigator in preparing her own research design of the problem in hand. At the same time, it also acquaints the investigator with the limitations of the tools and procedures used by the past researches.
As a result of her research problem with these objectives in sight, the investigator thought it worthwhile to review the past researches on achievement with specific reference to the variables. They are described in the following paragraphs. The review would be divided in two broad categories:

(i) Researches done in India
(ii) Researches done in Abroad

3.2 Researches done in India

Several studies in the areas of achievement have been undertaken in relation to the impact of variables on achievement. Some of the studies are reviewed here in brief.

3.2.1 "A Study of relationship of socio-economic factors with Achievement of the students in the secondary schools" - Chopra S.L.

Objectives:

The investigation aimed at studying the relationship between socio-economic factors and academic achievement with measured intelligence constant.
Sample:

The data on intelligence, socio-economic background and academic achievement were collected from a group of 1359 students. Selected from a sample of 1423 students of class X (age range from fourteen to fifteen years), studying in nineteen urban and sixteen rural schools of Lucknow district of Uttar Pradesh.

Findings:

The following were the findings of study:

(1) The percentage of failures among the students from the professional, administrative, executive and managerial group was twenty seven, while that for the other groups ranged between fifty nine and sixty one.

(2) The percentages of students scoring first class marks were twenty eight for the professional group while seven percent for the other group.

(3) On the basis of father's education and occupation, family income, type of lodging, size of the family, cultural level of home, students belonging to the higher qualitative group showed significantly higher mean achievement than students coming from lower categories.
The difference between the academic achievement of different castes was significant at .05 level.

3.2.2 An investigation into the relationships of reading ability with general mental ability socio-cultural status and school achievement - Shrivastav R.P. 1984

Objectives:

The major objective of the study was to assess the influence of general mental ability, SES and reading ability upon the school achievement.

Tools:

Raven's Advance Progressive Matrices and Dabas' socio-cultural status scale to measure socio-cultural status of school children and Reading Ability tests were used. To test the word meaning, Tarang's vocabulary test was used.

Sample:

Four hundred and eighty students of class VII constituted the sample of the study. These students were selected from four types of schools - one government boys
school, one government girls school, one private aided school and one public school. One hundred and twenty pupils were selected from each of these schools.

Findings:

(1) The correlation of IQ with reading ability, and the achievement in different school subjects was positive, significant and fair sized.

(2) A positive and significant correlation was found between measures of reading ability and various measures of school achievement.

(3) The correlation amongst various measures of reading ability as well as its relationship with achievement were positive and significant.

3.2.3 "A Study of Effects of Socio-economic Status on the Achievement and Behaviour of Higher Secondary School Students" - Mathur K.³

Sample:

Five hundred students (309 boys and 191 girls) of classes IX and X were selected randomly from seven boys' and three girls' higher secondary schools of Alicarh. The study was conducted at three stages, viz. pilot study,
main study and an interpretative study which was actually a supplementary study to find out the causes underlying the differences. This interpretative study was conducted on a stratified random sample selected by picking seventeen percent cases from the sample of the main study.

**Tools:**

The tools for research were:

1. The SES Scale - the ratings of independent judges on a five point scale according to the social prestige of the occupations.

2. The achievement test of the Bureau of Educational and Vocational Guidance, Bihar.

3. A five point rating scale constructed for measuring the personality components and behaviour.


5. The Bell's Adjustment Inventory (Student Form).

6. The Maslow's Security - Insecurity Inventory.

7. An Inventory of Study Habits.

Correlation and t-test techniques were used for the analysis of data.
Findings:

The following were the findings of the study:

(1) The percentage of students belonging to higher SES was high for superior intelligence.

(2) Achievement was highly correlated \((r = .67)\) to adjustment.

(3) More secure individuals were better in their behaviour as well as in achievement.

(4) Calculated ratios between scores of adjustment inventory with rated conduct, security-insecurity inventory and intelligence were .87, .72 and .89 respectively.

(5) The variable of study habits was highly correlated \((r = .78)\) with scholastic achievement.


Objectives:

The investigation was designed to study the influence
of socio-economic status on academic achievement of rural and urban high school students.

**Tools:**

(1) The Samoohik Mansik Parikshan by Tandon, was used to measure IQ.

(2) Saxena's Socio-economic status Scale was used for assessment of socio-economic status of the families.

(3) The marks in the high school examination were taken as the criterion for academic achievement.

**Sample:**

The sample for the study consisted of 1000 students of secondary schools. Of them 500 were boys and 500 girls. Both among them, 300 belonged to urban area and 200 to the rural area.

**Findings:**

(1) There was a positive relationship between socio-economic status and academic achievement of the students.

(2) There was a positive relationship between the IQ and academic achievement.
IQ positively affected academic achievement of the pupils.

The academic achievement of the rural students was lower than the achievement of the urban students.

The academic achievement of girls was superior to the performance of the boys.

3.2.5 A psycho-social study of academic under-achievement at secondary school level in the state of Rajasthan - Agarwal, S.K.

Objectives:

The objectives of the investigation were:

1. To identify the relationship between personality and academic achievement

2. To find out the relationship between the values of students and their academic achievement.

3. To study the relationship between parents' values and academic achievement.

4. To study the relationship between socio-economic status of the family and academic achievement.
To study the influence of rural-urban residence on academic achievement.

Sample:

The sample consisted of 1,408 class XI students selected through the stratified sampling technique.

Tools:

The tools used in the study were: Verbal Group Test of General Mental Ability, Personality Questionnaire, Students Value Scale, Parents' Value Scale, Socio-economic Status Index and Bhatnagar's Attainment Test.

Findings:

The major findings of the investigation were:

(1) The under achievers were comparatively less emotionally mature, less calm, less placid, less prone to getting into difficulties and less able to face reality and possessed less ego strength than the over achievers.

(2) The rural over-achievers in comparison to urban over-achievers were relatively more outgoing, more warm-hearted, more easy-going, more participating, more trustful, more adective and more social.
The urban under-achievers as compared to rural under-achievers were relatively more tense, more driven, more over-wrought and more frustrated.

(3) The over-achievers had stronger educational, social and humanistic values than the under-achievers, but on the remaining three values materialistic, religious and personal - the two groups were alike.

(4) The urban over-achievers had stronger educational, social and humanistic values than the rural under-achievers. The rural under-achievers and over-achievers gave more importance to education of their wards than the parents of the under-achievers.

(5) Socio-economic status of the parents of the under-achievers and over-achievers was related to their achievement.

3.2.6 An Enquiry into Reading Interest of the pupils of Standards VIII to X in relation to Intelligence, SES (Socio-Economic Status) and Academic Achievement - Goswami R.

Objectives:

The main objectives of the study were:
(1) To inquire into reading interests of pupils of standards VIII, IX and X.

(2) To find out relationship between reading interests and different pupil characteristics namely, age, sex, standard, socio-economic status, intelligence and academic achievement.

(3) To find out the difference in reading interests among different groups of students classified in terms of standard, age, sex, SES, intelligence and academic achievement.

Sample:

Ten English medium schools of Baroda were selected and 679 students were drawn randomly from standards VIII, IX and X who constituted the sample for the study.

Tools:

(1) Reading interests of the students were measured with the help of a questionnaire constructed by the investigator.

(2) Intelligence was measured by Madhukar Patel's Non-Verbal Test of Intelligence.
SES was measured using the Socio-Economic Status Scale constructed by Parikh and Trivedi. The records of total marks of annual school examination were taken to represent the academic achievement of the pupils.

The data were analyzed using mean, standard deviation, product moment correlation and t-test.

Findings:

The major findings of the study were:

1. There was negative relationship between reading interests and age. The reading interests of the students reached a peak value at the age of 12 to 18 years and then started declining with the increase of age.

2. There was no difference in the reading interests of the boys and girls at the secondary stage.

3. There was significant relationship between socio-economic status of the students and their reading interest. Difference between the reading interest scores of high and middle groups was not significant and those between middle and low groups as well as between high and low groups were significant.
There was significant relationship between academic achievement and reading interests.

Relationship between the intelligence and the reading interest of the students was significant.

3.2.7 Effect of certain socio-economic factors on the scholastic achievement of the school children, psycho-metric research and service unit - (ISI) Chatterji, S.; Mukherjee, M. and Banerjee.

Objectives:

The main aim of the study was to investigate the effect of some important aspects of social class such as income, parents' education, family size, general condition of the home, etc. upon the scholastic achievement.

Sample:

The subjects were 230 students, both boys and girls studying in classes VI and VII in eight different Bengali medium schools in Calcutta.

Tools:

(1) The intelligence tool of the students was measured using the Non-Language Test of Verbal Intelligence.
(2) Information regarding the socio-economic status of the subjects was collected through a questionnaire.

(3) Annual examination marks in English, Bengali, mathematics, science, history and geography and total marks in the subject were considered the measure of achievement.

Findings:

The findings of the study were:

(1) The family size and the number of siblings were inversely related to the scholastic achievement specially in the low intellectual level. In some case, parent's help had significant positive contribution towards higher achievement.

(2) Parent's educational level was directly related to the achievement of their children.

(3) In high ability group, children had greater achievement when they had no private tutor than when they prepared their lessons under the guidance of a private tutor.

(4) Father's occupation was not consistently related to children of serviceman excelled the children of businessman but the trend was reversed for the average and low intellectual groups.
3.2.8 School Achievement of BC and Non-BC pupils in the context of Reading Ability and Reading Speed.

Formulation of Hypotheses:

(1) There is no difference in school achievement of BC and Non-BC pupils.

(2) There is no difference in school achievement of the different categories of readers of BC and Non-BC pupils.

(3) There is no difference in school achievement of the fast and slow readers of BC and Non-BC pupils.

(4) There is no difference in school achievement of the pupils of both the sex of BC and Non-BC pupils.

(5) There is no interaction between or among the independent variables as far as school achievement is concerned.

Tools:

The following tools were made to gather data:

(1) Reading Ability Test by Trivedi and Patel was used to measure reading ability and reading speed of the pupils of grade X. The test is valid and reliable for the purpose.
(2) The General Register of the school was referred to get the information regarding castes of the pupils and these were checked with the circulars of the Gujarat Government.

(3) To have uniform measure of the school achievement, the March 1982 S.S.C.E. results (New S.S.C.E.) of the pupils were recorded.

Sample:

Initially 779 tenth-grade pupils of some 12 schools took Reading Ability Test to isolate good and poor readers as well as slow and fast readers. From the two distributions of ability and speed scores $Q_1$ and $Q_3$ values were calculated separately for each distribution so as to act as cut-off scores of isolating the pupils.

Findings:

As shown by ANOVA summary, the main effects of caste and reading ability of pupils were the major predictors to school achievement, while reading speed and sex of the pupils, contrary to our expectation, were not the factors contributing to the school achievement. Reading speed was not at all significant at .01 level signifying thereby that the increased reading rate had no value if it did not
enhance comprehension simultaneously. The latter result is supported by the researches of Burl Brin and Ronald Carver.

3.3 Researches done in Foreign Countries

As has been mentioned earlier in this chapter, varied type of reading research studies has been undertaken prior to the advent of the present age of reading, but researches on reading comprehension or reading ability in foreign countries are meagre. If the 1960s were the time of large scale studies of beginning reading, the 1970s were the time of large scale studies of reading comprehension/reading ability. Abundant research work on reading comprehension has been conducted in foreign countries, specially in Europe and America. Pure researches on reading ability in India are legion. Comparatively a great deal of quantitative as well as qualitative research work on reading ability has been done abroad. The researches that would be described in the pages to follow would throw light on some of the most significant and relevant reading ability researches done in foreign countries.

3.3.1 Probable Types of Difficulties Underlying Low Scores in Comprehension Tests."
One of the most illuminating studies in the field of reading and the factors influencing its development was made by Hilliard. He was the first to identify, through a survey of literature on a silent reading, twelve factors that might influence comprehension. Six of those factors were eliminated from further study because satisfactory methods of isolating them could not be devised. An effort was made to determine the relation to comprehension of the remaining six factors, namely, general intelligence, meaning vocabulary, rate of reading, ability to reproduce, material read, lip movement and articulation, an ability to organize. Several tests of each of these factors were given. The results showed that there was a positive correlation between comprehension and each of five of them. The zero order of correlations reaffirmed the relationship and showed the following order of importance among them: intelligence, vocabulary, organization, rate and reproduction.

A review of all available evidence shows that some of the factors which influence comprehension are inherent in the reader. These factors are general intelligence, meaning vocabulary, background of related experience, interest in reading, and to a limited extent, race, nationality and sex.
3.3.2 The relationship between Intelligence Quotients and Gain in Reading Achievement with Arithmetic Reasoning, Social Studies and Science.\textsuperscript{10}

Intelligence and Gain in Reading as Related to Gains in the Sub-Tests of the Stanford Achievement Test.\textsuperscript{11}

Scott made a correlation study of the relationship between intelligence and gain in reading achievement, together with gains in arithmetic reasoning, social studies and science, for 670 pupils who had taken the Stanford Achievement Test at the beginning of grade five and again at the end of grade six. Partial correlations were also computed for 390 pupils grouped as low, average and high IQ. In general, the correlations were low but positive. Among the several specific findings reported, it was found that the gain in reading achievement correlated highest with gain in social studies and lowest with gain in science. The low but positive correlation, not attributable to intelligence, between reading gain in other curriculum areas led the author to conclude that reading skills should be generally developed and also specifically related to other curriculum areas. In a second study, Scott investigated similar relationships for 193 pupils tested in grades five to six. In this study, however the advanced battery of the Stanford Achievement Test was used at the end of sixth grade. The use of the advanced battery did not affect
the degree of correlation reported previously for the intermediate test battery, but some differential effects were noted between gain in reading proficiency and gains in other subject areas.

3.3.3 Some Differences in the Family Relationships of Achieving and Underachieving Readers.

Hutimer and others compared the family relationships of twenty-two boys and twenty-two girls who were underachieving in reading with an otherwise similar group of achievers. They used a "Two House Technique" designed by Szyrski to determine sibling relations, identification of child with parent and degree of independence from home. The results differed by sex. Achieving girls tended to identify with mothers and reject sibling more than underachieving girls, and achieving boys identified more with fathers than did under-achieving boys. There was more sibling rivalry among achieving girls, and achieving boys interacted more with siblings than underachieving boys.

Several relevant studies, published in a series of research reports over the past decade, have been produced by the Center for Social Organization of Schools at Johns Hopkins University.
The longitudinal studies of educational outcomes are reviewed and analyzed in Kerchoff\textsuperscript{13}. On a more modest scale, Brookover has produced significant research in this area. The most extensive is a study of school social systems and student achievement in a sample of Michigan schools (Brookover et al)\textsuperscript{14}. Four questions characterize much of the research and discussion of school effects on student outcomes. The first of these is the question of school versus family background as an influence on student achievement and later status in life. This question is related to that of the quality or inequality of educational outcomes. The third area with which sociologists have been concerned is the relation of social context, social composition, or school climate to school outcomes. In recent years there has also been an emphasis on the characteristics of effective schools, particularly atypically effective schools in which most or many of the students are from families of lower socio-economic status.

The general findings of the Equality of Educational Opportunity study have not been disproved. This national study revealed great differences in educational achievement among students and between schools in different regions and schools with different socio-economic status (SES) and racial composition. Black and low SES students in predominantly middle-class schools achieved at higher levels than similar students in schools with only low SES students.
This finding provided a basis on which to justify the desegregation of schools, but it also found that the inputs into school, other than student body composition, explained essentially none of the variance in school achievement. This and subsequent research led to the conclusion that schools made little or no difference (Jencks et al)\textsuperscript{15} in the achievement of students and a greater emphasis on family background as the determinant of school performance. For the most part, the Wisconsin studies have also indicated that the SES and racial backgrounds of students' families explain much more of the differences in aspirations and status in later life than do the characteristics of schools.

The conclusion that schools contributed little to the explanation of the inequalities in student outcomes stimulated considerable subsequent research on the social characteristics of schools (McDill and Rigsby\textsuperscript{16}, Brookover et al\textsuperscript{17}, Rutter et al\textsuperscript{18}). These studies indicate that the nature of the school norms, expectations, organization, and other aspects of the school social system explains the variance in school outcomes as well as or better than family background.

Some research on the comparative effectiveness of schools in several countries and types of schools in the United States has sociological relevance. The international
studies of mathematics achievement (Husen\textsuperscript{19}) and other subjects (Inkles\textsuperscript{20}) and the recent comparative achievement or private, parochial, and public schools in the United States (Coleman\textsuperscript{21}, Greeley\textsuperscript{22}) are significant contributions in this area. These all suggest that something about schools apparently affects levels of student achievement. The finding that private and parochial schools are more effective in teaching similar students raises significant questions about the differences in school learning environments and of policy in regard to the support of public and private schools.

3.4 Rationale of the Present Study

The review done earlier in this chapter revealed many things to the investigator regarding tools, methodology and the research design.

The review showed that most of the researches reported no factorial design thereby the results of the main effects were confounded or contaminated. That is the reason why the present investigator desires to invoke factorial designs for various variables incorporated in the present study.

The previous studies reflected the research designs having one or two variables. This may have their own.
limitations. In order to obviate these limitations, the present investigator would entail more relevant variables into the design. So that there would not be any contamination of results.

Moreover, the findings of the present research would be more generalized to the population as a whole. This is possible only when a factorial design of appropriate dimensions could be formulated.

Moreover, the analysis of variance technique is a robust method for achieving chance error minimum that may creep into the analysis.

The present study would be broad based encompassing relevant variables chosen from the review of the researches presented in this chapter. The evidences of the present research would be juxtaposed with the evidences of the past researches based on non-factorial designs and the results would be interesting:

3.5 Conclusion from the Research Review

The review of the related researches helped the investigator to select the independent variables precisely, how to measure them on interval scales, and to select a research method pertaining to the problem in hand. Moreover,
it also helped the investigator to prepare a research design appropriately for the problem and its objectives.

The next chapter would deal with the planning and procedure of the present research study.
References:


