CHAPTER III

PROBLEM, PLAN OF STUDY AND DELIMITATION

In the previous chapters an attempt was made to identify the constituents of reading ability and how it is related with child's intellectual ability, socio-cultural status and scholastic achievement. While reviewing the related studies it was found that in India no significant investigation has been made which could let us assess the pattern of relationship between reading ability and other cognitive and non-cognitive variables such as, mental ability, socio-cultural status and school achievement. Accordingly, the present investigator proposed to undertake the following problem:

"AN INVESTIGATION INTO THE RELATIONSHIP OF READING ABILITY WITH GENERAL MENTAL ABILITY, SOCIO-CULTURAL STATUS AND SCHOOL ACHIEVEMENT."

HYPOTHESIS:

On the basis of the previous description of reading ability and the review of related studies, the following null hypotheses have been conceived for the present study:
(1) There is no significant relationship between various measures of reading ability and general mental ability.

(2) There is no significant relationship between various measures of reading ability and socio-cultural status.

(3) There is no significant relationship between various measures of reading ability and achievement in different school subjects.

(4) Reading ability together with general mental ability and socio-cultural status does not contribute significantly to the variance in school achievement.

The Measures of Reading Ability:

The hypotheses indicated that the first task of the investigator be to secure measures of reading ability. The review of related studies led to the fact that significant measures of reading ability would be provided by tests of vocabulary, tests of reading comprehension and the speed of reading. Synonymity, antonymity and word meaning (contextual) could provide a sufficiently balanced measure of vocabulary. Similarly reading for inference, reading for general significance, and reading to identify main idea and to note details could be identified as significant facets of reading comprehension, each one of which could
provide a significant measure of reading comprehension. Finally, measures of speed of reading could be secured by using a reading speed test film (cf. Thorndike, 1973; Favelac, 1974).

The Tools:

The first step was to identify tools to provide measures of reading ability, mental ability and socio-cultural status from amongst the available tools or to devise tools to secure measures for these variables. The most advantageous step was the selection of tests from amongst the existing pool of available tests. Only such tools were to be constructed which were neither available nor were appropriate tests from the point of view of the purposes of the present investigation.

The review of related studies led to the fact that the tool or tools to provide measures of mental ability should be such which do not have a verbal content so as to be more or less independent of verbal ability, and if possible be culture-fair to preclude the possibility of effects of such moderator variables as monolingualism, bilingualism and multilingualism as well as transfer of training.


Finally, for assessing socio-cultural status such a scale had to be identified which would take into account not only the economic, educational and professional status

So the investigator went through a list of tests available in First Mental Measurement Handbook for India by Long and Mehta (1966) and the tests available in the National Test Library of the National Council of Educational Research and Training, New Delhi. A perusal of these tests as well as a review of related studies in India led the investigator to the fact that a number of investigators have used Raven's Advanced Progressive Matrices to secure measures of general mental ability. Similarly Dabas (1979) for his own investigation at Jamia had to device a socio-cultural status scale by adapting Kuppuswamy's (1962) SES Scale and adding to it cultural artifacts and home environment items to secure a measure for the socio-cultural status of school children in Delhi. The present investigator selected this scale for his investigation too.

Finally, Tarang (1979) for his investigation 'Instructional Strategies for Teaching Hindi as Second Language to Urdu Medium Students' conducted a number of Hindi tests for seventh-grade children. Out of these tests the present investigator selected vocabulary (word meaning) tests and sifted ten items each for synonymity, antonymity
and contextual meaning to construct word meaning in test
for the purposes of present investigation.

However, proper tests on reading comprehension
and speed of reading for pupils undergoing present VIIth
class curriculum in Hindi were not available. The present
investigator, therefore, planned to device these tests
himself. For developing these tests the investigator had
first to identify the contents of the tests under different
facets of reading comprehension as well as the type of
reading speed test. The content was proposed to be identi-

fied from the prescribed text-books and supplementary
reading material for grade-seven of the Hindi medium students
of Delhi schools.

Construction of Reading Tests:

Sufficient number of items for each subtest of
reading comprehension and the speed of reading were planned
to be constructed. Easy to difficult items were planned to
be based on the nature of the thought content and language
difficulty. Instructions for the testee were proposed to
be given in sufficient detail and the mode of answering
each item was planned with the help of suitable examples.
The time taken in completing the test was planned to be
noted in case of each ad-hoc test so that the time limit for
the final forms of the tests could be worked out.
Try Out of the Tests:

The reading tests were planned to be printed and tried out on such a sample of VIIth class students belonging to various schools of Delhi, e.g., private aided schools and Government schools etc., which had the similar courses of studies and which could be presumed to be equivalent to the final sample.

Item Analysis:

After having secured data on ad-hoc reading tests, the next step was to adopt proper statistical method to decide the difficulty value and the discrimination value of each item for the selection of the items for the final form of tests. As abacus and item analysis charts were available it was planned to make use of these.

Administration of the Tests:

After having constructed the final forms of the reading tests, it was planned to administer these on sample typical of VIIth class pupil studying in different types of schools in Delhi. It was decided to select four types of schools -- one Private aided school, one Public school, one Government girls school and one Government boys school. The main criteria of the selection of the schools were that each school should have at least more than one hundred students in class VIIth coming from different strata of society.
Having identified the schools on the basis of the criteria proposed, the next step planned was to administer the battery of reading tests as well as the Progressive Matrices Test and the Socio-cultural status scale. It was decided that all the tests must be administered within the month of March, just before the final examinations of class VII takes place.

**Scoring of the Tests:**

After having administered the tests, the next step was planned to be the scoring and tabulation of data. Since all the subtests of the battery of reading tests would be structured, where all the items were of multiple response type, the keys were planned to be prepared independently by the researcher and two Hindi test experts, so that in case of disagreement, the correct response could be decided after a discussion.

The score on each of the tests of reading ability, intelligence and socio-cultural status of each student was planned to be determined on the basis of the keys prepared for each test. The data on school achievement was planned to be collected from the achievement register maintained by the class-teachers or the examination incharge of the respective school.
Analysis of Data:

Having secured the data, the next step to plan the study was to adopt proper statistical methods to analyse the data with respect to the questions raised and hypotheses proposed in the study.

Various statistical methods are available for computing the indices of relationship, but appropriate procedures could be adopted depending upon the need and nature of the available data. As the data was expected to be available in a continuous distribution, there was little difficulty in planning to choose the appropriate measure of relationship and accordingly the investigator planned to make use of the product-moment coefficient of correlation (Pearson's 'r'), and subsequently to delve deeper into multivariate relationship of reading ability with mental ability, SCS, and school achievement to conduct multiple regression analysis.

Delimitations:

The following delimitations were worked out to define and delimit the scope of the present investigation:

1. Presuming that the reading ability is primarily concerned with silent reading, the tools constructed were limited to such tools which involved only silent reading, that is oral reading activity was not planned to be taken into account.
(2) Presuming vocabulary, speed of reading, and reading comprehension to be sufficient indicator of reading ability, construction of tool was limited to secure measures of these.

(3) Due to the limitations of time and resources, the present study was limited to the South Delhi schools only. Further a large sample of students in each kind of school, the study was limited to only those schools which could provide a sufficiently large sample of students typical of different types of school, viz. Government schools, Private aided school and Public school, preferably in the neighbourhood of each other.

(4) To study the relation of reading ability with socio-cultural status, students belonging to different socio-economic and cultural status were to be involved. Hence schools were to be selected that include students coming from low, middle and high socio-economic status. For this purpose different types of schools were to be selected. It was decided that one private aided school catering to the needs of semi-urban area having low SES, two government schools (one boys and one girls) catering to the needs of middle SES, and one public school which normally admit children from high SES should be selected for the present study.

(5) Presuming that four subjects, viz. Hindi, Mathematics, Social Studies and Science are important in school
curriculum, and significant for the present investigation, the achievement in other subjects were not taken into account while securing the measures of school achievement.