CHAPTER III
REVIEW OF PAST WORK

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3.0 Introduction

A peep into the past gives a vision for the future. To get insight into the present problem, the review of the past researches is necessary. Many angularities and blurred vision of problem on hand could be rounded off and vision can be made clear. Besides this the review also helps the investigator in preparing his/her own design of research problem. At the same time it also gives the idea of the limitations of tools and procedure used by the past researchers, as well as the problems confronted by them in carrying out the research. Not only this, but review also helps to develop sufficient confidence to shoulder the burden of research problem.

With these objectives in mind it was decided that the review of the past work on reading should be done.

3.1 Historical Development of Researches in Reading

Reading involves motor adjustments of eyes, transmission of visual image to the brain, recognition of visual symbols, interpretation of words, and phrase.

The measurement of silent reading has been classified into two categories:
Measurement by photographic eye movement.
Measurement through technique of paper-pencil test, which is largely used in schools and colleges.

In 1879 Javal was the first man to note the eye movement. Dodge, Buswell, Dearborn, Gray and others have continued this work further. They discovered that by observing eye-movement, it is possible to tell whether an individual is a good reader or a poor reader. Good reader makes a fewer fixations and fewer regressions than poor reader, while reading in given material.

This technique of measuring and evaluating reading has certain practical limitations. It sets up a very artificial reading situation in which individual may become self-conscious and fail to give a normal performance. There are other two methods. They are:

1. Miles peel hole method and
2. Mirror test. It is likely that, the teacher may focus their attention on the mechanics of the reading process instead of the main purpose of all worthwhile reading which is comprehension.

Till 1910, laboratory experiments in psychology and psychology of reading were the main features of research in reading.
More than half of all the studies published during the period till 1910 could be regarded as laboratory studies. Between 1910 to 1920 growing interest in reading specialists seems to have taken turn to adjust their research work in tune with the needs connected with the practical class-room teaching of reading.

The first standardized test was introduced in about 1910. It could be used for the comparative studies under ordinary class-room situations.

3.2 Measurement of Reading Comprehension

Measuring reading comprehension for beginners is not an easy job. It is a complex concept and consists of many factors as described in the foregoing chapter. It is absolutely necessary for the teacher to know the reading comprehension of each child to provide better learning experiences. If this happens only, the teacher would be able to adjust his teaching to each child's needs and numerous reading problem might be averted.

A teacher can discover reading comprehension or lack of it in her pupils by two main methods. They are:

(a) Informal way of evaluating reading comprehension, and

(b) Formal way of evaluating reading comprehension with the help of standardized tests.
3.2. (a) **Informal Way**

The informal way of measuring reading comprehension by and large depends upon the method of observation. The teacher while teaching, asks the pupils to read silently, the reading material and than on asking the relevant and proper questions can find out the level of comprehension of the pupils by analysing the answers given by the pupils. The teacher, at times, may read loudly the reading material and at the same time instructing the pupils to read the material silently along with him and than carrying out the procedure of question-answer can gather some crude impression about the level of comprehension of the pupils.

The judgement of a reasonably competent and seasoned teacher could be considered as a reasonably dependable judgement. He observes the children carefully in different situations to find out the behaviour related to reading comprehension. The location of behaviours may be overlapping with the emotional behaviour or with some other mental development but from whatever he observes he could predict about the reading comprehension of the children.

From this it becomes evident that teacher forms a general impression of a child's reading comprehension. However, it is not easy to analyse and evaluate child's level of reading comprehension by merely relying on observation.
That is why, the method is considered to be less reliable and less valid. But by and large, it could be said that this method has certainly provided a background to find out the behavioural specifications of reading comprehension on which the valid and reliable tools have been constructed and standardized for use in primary and secondary schools.

3.2. (b) **Formal Way**

As the time passed a need was felt for some formal technique to measure reading comprehension of the child. Due to the incompetencies or subjectivity of teacher it may be possible that the child may be under-estimated or over-estimated by the teacher for reading comprehension. Therefore to check the teacher's judgement, a scientific tool came into existence, namely 'Reading Comprehension Test' or 'Reading Ability Test'.

Now at present the teachers utilize the standardized tests to measure the level of reading comprehension of the child. Therefore here an attempt is made to give the review of some available well-known tests of reading comprehension developed in other countries as well as in India.

3.3 **Test on Reading Comprehension**

Various tests are available. Here the review of some of the tests is given.
For practical purpose; the only procedure of measuring reading ability is to employ paper-pencil test, containing objective questions, which measure comprehension of passages indirectly after the passages have been read and not as an aspect of the continuous reading process itself.

The earlier reading tests were brief and yielded either a single overall reading score, or a rate of reading score and general comprehension score. Recent tests are longer and they give three to four different scores which help the user to locate the strength and weakness of the pupils also.

There are two types of tests available on Silent Reading Comprehension:

1. Group test and Individual test
2. Diagnostic test and Survey test

3.3 (i) Group test

This type of test can be administered to more than one individual at a time. Usually the test consists of 75 to 100 multiple choice type of items and examinee has to read the item himself and work ahead. Generally the task is to be completed within a stipulated time and in case of diagnostic test he is allowed to take as much time as he wants. Some group tests call for oral instructions from the examiner, whereas some are self explanatory. The test-booklets and
answer sheets are to be distributed to the subjects and then they are allowed to work at their own rate, or the examiner direct them when to start and stop. Almost all tests yield grade and percentile norms. These tests are generally used to test the normal children.

**Individual Test**

This is the test which can be given to only one individual at a time. So it is time consuming test. This test requires highly experienced and trained examiners. He has to standardized his own statement for the child to conform the established methods. This type of tests are generally designed for lower classes where younger children are studying. All oral reading tests are individual tests. These tests are often used for diagnostic purposes or in clinical settings.

3.3 (ii) **Diagnostic and Survey Tests**

Survey tests generally measure vocabulary knowledge, comprehension of sentences or paragraphs and sometimes the rate of reading comprehension. They give the general picture of pupil's strength and weakness and indicate the grade level and provides overall score. One such test is Thorndike McCall Reading Comprehension Test which was published in this century. The diagnostic test measures strength and weakness of pupils in specific areas of reading. Iowa Reading Test is this type of test.
A third kind of test is generally designed to measure the specific skills or three to four fundamental aspects of reading ability. They usually measure comprehension and vocabulary, comprehension and rate of reading or comprehension rate and vocabulary.

Following few tests are of this type:

1. Gate's primary reading tests, 1966 (revision).
2. Nelson reading tests for high school and college.
3. Traxler silent reading test for grade 7 to 10.
4. Co-operative English test, Test C: Reading comprehension for grade 7 to 12.
5. B.V. Patel's Silent Reading Comprehension test in English for S.S.C. students.

A few reading tests which have some unique features, have been studied and the report of the same is described under the caption, "Review of some Tests", in the following paragraph.

3.4 Review of Some Tests

Here a few tests on reading are reviewed with an objective for finding out abilities or skills measured by them. Therefore, the tests have been studied keeping in view the following aspects:
* Abilities or skills measured by the tests.
* Type of scores they give.
* Norms
* Time required to administer the test
* Types of question
* Reliability

For the sake of convenience the review is divided into two parts:

(a) Tests of reading standardized in foreign countries.
(b) Tests of reading standardized in India.

3.4. (a) **Tests on Reading Standardized in Foreign Countries**

Iowa Every Pupil Tests of Basic Skill.¹

Test: A for elementary, graded 3-5; advanced, grade 5-9. It is a silent reading comprehension achievement test battery measuring skills developed in elementary schools.

Paragraph comprehension, noting details, organization of ideas and grasping the total meaning, are the four silent reading skills that are measured through these tests and also measures vocabulary.

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There are five questions having four multiple choices under each story or small paragraphs. The advance battery is parallel to the elementary battery in abilities measured and the questions are also similar in nature. The reading material used is longer but interesting and consists of description, exposition of historical narration.

There are 40 items in the elementary school battery and 50 in advanced battery. The total time required to administer the test is 70 minutes. There are grade-equivalents, age equivalents and grade percentiles norms are given. These tests are prepared for pupils of Iowa public school. Answers are to be marked on a separate answer-sheet. Nothing has been mentioned about the reliability of the test in the mental measurement year book.

II The Nelson Reading Test

This test is for grade 3-9 with vocabulary and paragraph comprehension test.

The test consists of vocabulary test of 100 words and 25 paragraphs, measuring the three different skills of comprehension. They are the skill to note the general significance, skill to note the details and to draw inferences.

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2. Ibid., pp. 800-1077.
Five multiple choice questions are given for the word test. The paragraph deals with fillings, situations and motives, which is followed by three questions which are of multiple choice type having four foils.

There are 75 questions in all tests. The norms that are given are percentile and grade norms for vocabulary, for paragraph comprehension and total scores.

Reliability co-efficient is about 0.90 and the validity co-efficient is about 0.80 which were found out by comparing the score with the score on available reading comprehension test.

Time allowance for part I of the test that is vocabulary is 10 minutes and for part II it is 20 minutes.

III Gates Reading Survey: Test for grade 3 to 10.

The test measures speed and accuracy, reading vocabulary, and level of comprehension. There are three sub-tests in the test. The first is speed and accuracy test having 36 test-items and second is reading vocabulary test having 60 test-items and third is comprehension test having 43 items.

The test gives three different scores. The grade and percentile norms for each score are given. The

3. Ibid. pp. 753-1066.
The reliability coefficient for five different grade range from 0.82 to as high as 0.89.

The time allowance for the first test is 6 minutes for grade 3-4-5 and 4 minutes for grade 6 to 10.

For second and third sub-tests the time to be allowed for each sub-test is 20 minutes.

IV Woodcock Reading Mastery Tests:

Woodcock reading mastery tests are special because they provide more precision. They are individually administered, highly reliable and measures of reading skills. They provide separate norms for boys and girls in addition to total group norms. A comparison to pupils in communities with similar social and economic characteristics is possible because of the socio-economic status adjusted norms. A criterion-referenced mastery scale indicates a pupils success potential in selected reading task. In addition, the tests are packaged in the convenient Age Easel-Kit which provides easy flippage presentation of test items. When not used the kit may be closed like a book for carrying and storage.

This is a battery of five sub-tests. They are:

1. letter identification
2. word identification
3. word attack
4. word comprehension
5. passage comprehension

These tests include two forms A and B. The tests are useful for children ranging from kindergarten to grade 12.

It requires 20 to 30 minutes to administer these tests.

The data on reliability and validity are not reported in the test manual.

3.4. (B) Test on Reading in India

In India few persons have attempted to construct the test in this area. Some of these are reported here.

V.K. Javli devised a test to measure the linguistic ability of primary school children in 1949. The test measures vocabulary, level of comprehension, speed in reading and accuracy in writing. It is meant for class III to VIII. It can be used as diagnostic test. Grade norms are given and they are applicable to schools in urban area only.

II The Silent Reading Ability Test in Gujarati.

The silent reading ability test in Gujarati constructed and standardized by Bhagatwala in 1966 for his doctoral degree. It is meant for Std. VIII to XI. The test aims at measuring speed of reading, word meaning and comprehension.

It is enough to measure the reading ability. The sex-wise percentile norms for each grade and age are given.

The reliability coefficients determined by test-retest method, split-half and parallel form are found to be ranging between 0.50 to 0.98.

The validity coefficients are ranging between .70 to .80 by using teacher's opinion as internal criteria and correlating the scores with standard scores of the marks obtained by pupils in subjects other than English.

III Reading Ability Test in Gujarati constructed by R.S. Trivedi and B.V. Patel for classes VIII to X. They have given class-wise standard scores, percentile norms and rate of reading. They have also given percentile norms, with a letter grade norms.

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IV  Silent Reading Comprehension Test in English for S.S.C. pupils of Gujarat State, constructed by B.V. Patel for his doctoral degree. There are nine sub-tests. The test consist of 2 stories, 5 passages, a test regarding tables and map and last one is the vocabulary test.

All the tests in the battery devised to measure the following abilities:

1. Ability to grasp the meaning.
2. Perceiving relationship.
3. Good visual perception.
4. Vocabulary.
5. Ability to note significant detail.
6. Ability to grasp the central idea.

Thus the battery appears to be elaborate enough to measure the reading comprehension.

Sex-wise percentile norms and area-wise norms are given.

The reliability co-efficients of sub-tests are ranging from as low as 0.40 to as high as 0.91. The reliability of the whole test is between 0.91 to 0.96.

The concurrent validity co-efficient is 0.47 and predictive validity co-efficient is 0.704. Total time to be allowed to answer the whole test is 76 minutes.


This study aimed at constructing and standardizing a silent reading test, and conducting follow up studies of the test in the light of its predictive diagnostic and screening uses.

An original silent reading test in Gujarati, for class IX was constructed. The test had nine sub-tests in respect of reading rate, prose comprehension, directed reading, poetry comprehension, paragraph comprehension, word meaning, sentence meaning, proverbs and idioms, and location of information consisting of table reading and arrangement of words.

The reliability coefficients of the test by four different methods ranged from 0.68 to 0.97. The validity of the test was also found to be in conformity with some of the renowned tests. Inter-correlations of the sub-tests

with the whole test were of a fair order. The grade norms, percentile norms, standard scores and stanine scores were found for boys and girls and for the whole group. Total time to be allowed to answer the whole test is 76 minutes.

Besides, these, the investigator referred some research journals with a view to finding out the similar or related study. It was quite surprising to note that there is not a single study which attempts to studying the impact of reading improvement programme in Gujarati on reading comprehension.

3.5 Review of Researches in Area of Improving Reading Comprehension

Is there any reason for feeling confident that efficiency skill and speed in reading comprehension can be increased in a comparatively short time? One can get answer to this question in paragraphs' that follow:

There are many reasons and all of them are supported by scientific findings in laboratory results. That a person of normal intelligence can learn to read better and faster is not a theory; it is fact.

It is a fact that has been established in the reading centres of hundreds of colleges and universities throughout the world. Here are few representative examples:
Here again, for the sake of convenience we will divide the review in two parts:

(A) Work done in Foreign Countries
(B) Work done in India

3.5. (I) Work done in Foreign Countries

(i) Teaching Reading to, College Students and Adults.  

The comprehension and rate gain of 109 college students were measured by Carpenter and Jones (1976) to assess the impact of reading laboratory classes on reading achievement using a sequential individualized approach. The reading course emphasized the skill areas of comprehension, vocabulary and rate over a 6 to 8 week duration after which application of acquired skills was encouraged to textbooks and journals. The instructional materials of the programme included handbooks that were cross referenced by sub-skills on the student assignment work-sheets. Achievement gains of students within the reading classes for the spring and fall semesters were determined by the difference between initial and end-of year percentile scores on the Nelson Denny reading Test. Sub-tests of comprehension and rate were

made use for semester classes studied. The mean percentile rank for comprehension increased from 42 to 61 and the mean rate increased from 255 words per minute to 515."

(ii) Shrauger (531)\textsuperscript{11} evaluated a personalized reading instructional programme in a conventional classroom at a community college. The aim of the programme was to teach students to learn how to learn, to direct their own learning and to improve their reading and vocabulary skills. A variety of data were collected at the start of the programme including vocabulary and reading scores on the McGraw Hill Basic Skill Test. Taped programme text, practice exercises, mechanical aids, and boxed programmes were employed as learning materials to improve vocabulary and reading skills. Activity progress and records were maintained by each student with the use of a manila folder. After I semester, results from analysis of pre-test and post-test scores of students in 4 classes showed positive gains in the reading areas of vocabulary and comprehension. The student evaluation of the programme was judged as favourable.

(iii) Henderson (249)\textsuperscript{12} compared an individualized reading instructional programme involving 34 students, with a prescriptive programme involving 28 students. The students who

\begin{itemize}
\item \textsuperscript{11} Ibid. pp. 434-35.
\item \textsuperscript{12} Ibid. p. 435.
\end{itemize}
were instructed by the personalized method were given individual conferences at the start of the programme with the aim of goal setting and guidance based on test's findings. Weekly individual conferences and class discussions were held to consider self-selected materials, progress towards weekly goals and applications of reading and study skills. Approximately 15 minutes per week were allotted for class-discussion. Students worked by the prescriptive method. The students were provided with a folder containing guides to reading laboratory materials and sheets for keeping a record of scores earned. The core materials were common to both instructional programmes. The programme effectiveness was measured by pre-test and post-test scores on standardized test and author constructed measures including the Nelson-Denny Reading Test. The significance of differences of mean score comparisons was calculated by 2 x 2 analysis of variance, using an unweighted means solution. After I semester of treatment both programmes produced gain scores with greater increase in the reading areas of vocabulary, and rate in favour of the students taught by the personalized method. No differences in gain scores were found in reading comprehension, between the 2 treatment groups. Gain scores on reading interest measured by the personalized subjects and by the prescriptive subjects were not significantly different.
The reading achievement of 250 migrant children was examined by Symula in a report of a migrant tutorial reading programme founded by the Bureau of Migrant Education. In the programme, tutors were trained to work with migrant children in the schools. Each child, depending on age, was tutored from half an hour to an hour a day, 5 days a week. Each tutor worked with no more than 4 children an hour. A commercial reading programme was used as the basic tutorial system. Pre-testing and post-testing was accomplished with the use of the Spach Diagnostic Reading Scale to measure achievement of the subjects. The average gain in reading was 1.4 years for the school year of tutoring.

(v) Effect of Reading Course on Adults: John A. Broxson

At the University of Florida as reported by John A. Broxson in the Peabody Journal of Education, 175 adults took a three months reading course, meeting once in a week for four-hours a session. The group was composed of businessmen, and women, teachers, lawyers, ministers, a newspaper reporter

13. Ibid. p. 444.

home-makers, club-women and two superintendents of schools. At the start of the course, 111 students were reading at the rate of 115 to 210 words per minute or no better than seventh grade elementary school level. Twelve weeks later almost all showed spectacular improvement, 52 out of these 111 slowest readers were sailing along at a rate of 295 to 325 words per minute, high school senior and college level. While only 20 per cent of the 175 adults had been able to read at college level speed before training, over 40 per cent could do so before the course was over.

(vi) A study of the effects of training in faster reading by city college of New York.

At the adult reading laboratory of the city college of New York a group of 14 students at the end of a 12 week training period in faster reading recorded an average arithmetic gain in speed of 69.1%.

Reports from college reading centres through the country underline two facts:

1. Most untrained students read unnecessarily slowly and inefficiently.

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15. Ibid. p. 4.
ii. After comparatively short period of intensive training these students can sharpen their comprehension skill, can increase their overall efficiency and can as a result add considerably to their speed.

(vii) A Pilot Training Programme at Purdue University.\(^{16}\)

At Purdue University a pilot training programme was offered to 307 entering freshman, and by the fifteenth week as reported by Professors Russell Cosper and Barriss Mills in the Journal of Higher Education, members of this group and increased their speed by 62 per cent.

Another group of 282 freshmen, similar in general and reading abilities to those enrolled in training but pursuing only the regular course of study, made a gain of 9% over the same period. Professor Cosper and Mills drew these very significant conclusions from a comparison between training and nontraining.

In general, results showed that reading ability improves very slowly, if at all, in the conventional course of study .... By working directly on reading skill, it is possible to increase decidedly the rate at which a student can grasp the content of the printed page.

\(^{16}\) Ibid., p. 3.
Through its Extension Centre Purdue offered a training course to industrial executives whose plants were located in the same area. One group, ranging in age from 31-41 increased in average speed from 245 to 470 WPM - a gain of over 90%. A class of older executives, in the 46-58 age group, started at 256 words per minute (WPM) and completed training with a speed of 414 WPM - a gain of approximately 60 per cent.

3.5 II (a) Work done in India

Let us review some of the researches done in the area of reading improvement in India.

(i) K.R. Narayan Swami's Research (1969) on reading comprehension at the college level had three objectives:

i. to measure the reading skills of the pre-university class-students;

ii. to improve their reading skills;

iii. to suggest measures for improvement of the reading ability of students at the level in general.

The experiment was conducted on six groups consisting of 167 students.

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They use the Fry Reading Course: Reading Faster (1963) and the speeded reading techniques advocated by him. The course was found effective both in terms of improvement of comprehension and increase in speed only with two of the experimental groups. In the case of third group the gains in both in speed and comprehension were insignificant. An intensive course in remedial reading was devised for improving the reading rates and comprehension scores of the group.

The important findings were:

i. It is possible to improve the reading of school leavers through reading alone irrespective of the proficiency in other language skill.

ii. All school leavers apparently to be put through a course in reading.

iii. Very few of the school leavers respond to a short term course in reading like the Fry's.

iv. Improving reading comprehension at the pre-university course level is really a problem of correcting for a fairly long established habits, of creating new habits and skills, and of developing them within one year and hence not much can be attained at this level; and

v. Reading Comprehension should be improved in the school.
The main aim of Ansuya's investigation was to improve the reading efficiency of the PUC level and to establish criteria for the improvement of reading efficiency of the pre-university students. The research was conducted on a sample of 400 students from PU, Junior intermediate and std. 12th classes. They met in five groups. After the initial test the students were given reading material on the value of reading, the elements of reading skill and common faults in reading and how to eliminate them. They were then given Edward Fry's tests in succession. The results revealed that the reading efficiency of all the groups increased considerably. Further, both the methods, the method of intensive training before the students began their regular studies and the method of spreading the training over a longer period when the students also had their regular studies were found effective. However, in view of the dearth of the trained personnel, the farmer was preferred. It was also emphasized in the study that to make the programme effective the level of students' mental development should be taken into account.

Both the studies thus revealed that there was considerable scope for improvement in the skill and same could be

18. Ibid., p. 270.
attained through appropriate materials.

(iii) A psycholinguistic study for developing a reading oriented ELT (English Language Teaching) strategy in the Indian context by Ansuya Pal (1978). [19]

The objectives of the investigation were to study:

i. The relationship between reading ability in English and intelligence motivation and selected environmental variables of school and college students in ELT class-room.

ii. Basic differences were about the requirements in preparing an adequate programme of reading instruction in English in our school and colleges.

iii. The possibility to synthesise a reading oriented ELT strategy for the school and college students and

iv. The essential features of the strategy.

The study was conducted in a phased manner. Use of the empirical and experimental approaches were made. In the first phase examination of the situational factors suggested that the objectives and priorities of Indian ELT programmes on the one hand and situational factors on the other necessitated a reading oriented strategy. To identify reading

19. Ibid., p. 303.
instruction requirements for school and college level, ELT programmes. The reading comprehension levels and related factors were ascertained in the second phase. It was found that the students' verbal intelligence and proficiency in English were the two most important factors for the reading ability of the students.

The results of Pal's experiment on two groups of school students in the third phase suggested that the reading instruction strategy combining the perceptual and conceptual skills could lead to significant improvement in reading comprehension. While her experiment on three groups of college students suggested that student with different initial reading efficiency levels required training in different types of reading skills because in the experiment poor readers were found to have responded more favourably to a strategy based largely on perceptual skills, while those with high initial reading efficiency levels were found to have responded more favourably to training in advanced conceptualization and comprehension skills. On the basis of the results of the two experiments Pal came to the conclusion that an integrated ELT strategy for overall proficiency with emphasis on reading skill could be effective at the school level, whereas different courses for different reading efficiency levels were needed for the college level ELT programmes. The effectiveness of contextual instruction of vocabulary and structural items
to promote reading comprehension as well as proficiency in English was experimentally examined in the final phase by comparing the performance of two matched groups of high school students. One presented with items in context of the reading passage and the others without. The contextual presentation was found to be the better reading oriented ELT strategy in view of students performance and was consequently recommended as a strategy for an average Indian school.

3.5.II (b) Work Done in Gujarat

(1) Parikh, Y.P. Carried out the following research work for his doctoral degree.


He employed a factorial group design. The main findings of the study were:

1. Reading speed is influenced positively by printing the material in two narrow columns having printing size as 10 point and having history type of content.

Within the limitations of criteria selected and studied, reading speed is also positively influenced by having two narrow columns with 14 point of

20. Ibid. p. 306.
letters or a single broad columns of 10 point type of letters.

ii. Reading comprehension is positively influenced by size of letters and story type of material but not by the type of formal.

(2) B.V. Patel\(^2\) constructed listening comprehension test in Gujarati for pupils of classes VIII, IX and X and to study the effect of listening improvement programme on it.

The major findings of the work are as follows:

i. The mean listening comprehension score increases as pupils go to the next higher standard.

ii. There are no sex differences with regard to the listening comprehension score.

iii. The urban pupils are superior in listening comprehension to the rural ones.

iv. There is no relation between age and listening comprehension.

v. The listening comprehension has a positive relationship with the achievement in school subjects.

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vi. There is positive relation between the listening comprehension and reading comprehension.

vii. The socio-economic condition affects the performance on the listening comprehension test.

viii. The experiment on listening improvement programme revealed that the listening improvement programme definitely proved to be effective to increase the listening comprehension of pupils of Std. VIII, IX and X standards.


Objectives of the research were as follows:

i. To select the components of reading in English as a foreign language relevant to the post high school stage.

ii. To prepare and try out auto instructional materials for developing proficiency in each component and in the act of reading as a whole.

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iii. To prepare pre and post tests for evaluating the outcomes of different units in the course.

iv. To prepare pre-test and post-test for evaluating the outcomes of the course as a whole.

v. To fix the range of applicability of the course in terms of marks obtained by the learners in English at the new S.S.C. Examination.

vi. To study the reactions of the pupils regarding the course.

The sample consist of 233 students selected from higher secondary schools of Ahmedabad city.

The course consists of 10 units, as under. The units are in the form of self study course book.

**Unit A**

I Word recognition for preparing this exercises 220 words were selected.

II Word Meaning - known words.

III Meaning of unfamiliar words use of context.

IV Reading Meaningful phrases.

V Sentence Meaning.

VI Finding out the main idea.

**Unit B**

I Formation of words.

II Dictionary skills.
III Guided Reading.
IV Speed Reading with Comprehension

For testing, pre-post technique was adopted. The tests were of two types: the overall test to measure the efficacy of the course as a whole, and the unit-wise tests to ascertain the efficacy of different units. Further these tests were given both before and after the training, either with the same content or with different content. Thus four kinds of tests were given: (i) The overall pre-test. (ii) The overall post-test. (iii) The unit-wise pre-test. (iv) The unit-wise post-test. The purpose of giving the test was to find out the gain in reading proficiency as a whole as well as in its various components that were made clear to students. They were all teacher made tests.

The pre-test and post-test have been described in terms of words. The pre-test has 1320 and post-test has 1640 words. This indicates the length of the test.

The study revealed that:

The course providing training in different components of reading and then giving integrated practice in reading as such has been highly effective in developing the reading efficiency of the students.

Unit-wise exercises based on different skills have proved to be effective in case of low achievers and in case
of high achievers unit-wise exercises have not proved equally effective.

3.6 Several Reading Improvement Courses

(1) Lyle L. Miller's (1970)\textsuperscript{23} increasing reading efficiency is a course for college entrants. It is designed to promote mutual development of reading skill and reading comprehension. The course is based on the assumption that, there are several constituents of the reading skill and each could be profitably mastered before setting out to acquire efficiency in reading. Thus there are eight series in the course, all in one volume. One each of word recognition, word meaning, phrase meaning, sentence meaning, idea meaning, exploratory reading, study reading and critical reading. Each series is prefixed with instruction about the exercises and suggestions for the same. Speed is aimed to be developed along with comprehension by giving its effect on course for all kinds of exercises and not for continuous passages alone which is more common. The volume contains the usual reading progress charts, tables for compiling rates and keys to exercises at the end.

(2) To study programme in rapid reading improved retention of Rutgers University 1951 is home study programme for the students at the preparatory stage. It is designed to enable the reader, the native speaker of English to get more out of the material, to read more extensively and to read with discrimination, greater speed and variation in speed as well as technique to suit the purpose. The programme has 13 portfolios. Each portfolio contains:

i. Theoretical discussion, entitled "training manual".

ii. Eye and mind practice which has instant word-recognition exercises as well as eye twister.

iii. Speed and comprehension practice of the usual type with passages followed by multiple choice type of questions.

iv. Reading - passer practice where an apparatus is to be used for increasing speed of perception.

v. Reading vocabulary practice and

vi. Speed and comprehension test.

Though each portfolio has all six elements listed above, the different portfolios is on different aspects of reading. Thus the first four portfolios concentrate on basic technique of perception. The title given is either, how better perception make a better reader, or seven brakes

that hold you back. The next four portfolios are on applied techniques with the title, how to use different speed and techniques. The last five are on practical techniques imparting instruction in things like, how to get more out of a newspaper, or how to read fiction with more enjoyment.

(3) The SRA Kit of the science research associates, INC., 1968 is a programme for the students aiming to improve their comprehension and speed. The kit comprises two kinds of material: The box and the student-book. The box can be kept in the class or in the library and used by several students at the same time, while the student book is for additional home assignment. The box has again two sets in it. The set of Booster reading and the Set of Timed Reading. Both have 128 short passages, each divided into 8 different level. But whereas the Booster reading material aims to develop comprehension and at the same time build up vocabulary, the main emphasis of the timed material is on increasing speed. The passages in Booster reading are therefore followed by comprehension questions and also vocabulary items, and a score of 80 per cent in comprehension and 90 per cent on vocabulary items in three passages is necessary to go on to the next level. In Timed Reading the passages are shorter than those in Booster reading. Each passage

25. SRA Kit, Science Research Associate, Chicago: 259 East Erie St. Inc. 11, 1968.
along with it questions is to be done in two minutes. Increase in speed is developed by increasing the length of the passage, length of the questions, and complexity of writing, while keeping the same time limit of 2 minutes. The material is so designed that the speed increases from 140 WPM to 240 word per minute, without loss of comprehension. The other material in the box includes answer-sheets and answer key cards.

The student book which is an essential part of the programme has its counterparts of the previous two material viz., Booster Reading and Timed Reading. In addition to two passages at each level it includes real life readings consisting of the writings from newspapers, magazines etc. There are also additional exercises in the student book to improve word-skill of course takers. They are to be done along with the box material. The book also provides keys to answer and progress profile.

(4) The MLS Multilevel English Reading Programme prepared by Mudhuriben Shah and Kallolini Hazart with the use of Dr. Don's material.

The entire project aims to produce a series of multi level reading laboratories. One of which has already

been brought out. It covers the range of varying achievement levels from standard I to V. A multi-entry individualized programme has ten grade levels indicated by different colours. When the students course in comprehension and vocabulary have, stabilized in 90 to 100 per cent range, he is allowed to move on to the next colour.

The material includes the following components:

* Power Builders.

The main part in MLS Reading Programme is the Power Builder. This is a four page folder containing a high interest reading selection. It also has the exercise material to enable the student to develop comprehension, vocabulary and language skill.

There are 100 Power Builder folders in the box which are arranged in 10 levels of increasing difficulty - starting from easy and ending at the difficult. These levels are given colours as orange level, Gold level and so on. The students will identify them by the colours but for teachers there is a chart to know what level is meant for what age and class - a numerical readability index for each colour is given.

The exercise material of each power builder has three sections:
1. "How well did you read?" tests of comprehension.
2. "Learn About Words" develops language skills.
3. "Look, write and Enjoy" section stimulates creativity and encourages him to think and write on his own. This section can be used for oral work too.

* Key Cards:

Power Builder key cards help the student to correct his own answers.

* Student Record Book:

This Record Book is filled in by the student and helps the teacher to review the child's progress.

* Starter Booklets:

These booklets are used in teaching small groups of students the procedures of this Reading Programme. They are also used for placing each child at his best starting level in the power Builder Programme.

* Teacher's Handbook:

This hand book contains the information about MLS Reading Programme and gives directions to the teacher for the introduction and operation of the reading laboratory.

This programme was implemented on 2000 children studying in English medium and regional language Municipal
as well as private schools in Greater Bombay.

The result of this experimental study conclusively proved that the MLS materials helped a great deal in raising the level of achievement among all children coming from different SES and with unequal achievements.

Thus the review of the related literature helped the investigator in deciding the components of reading comprehension to be measured in Gujarati for pupils of Class VI. It also helped to decide the what points be included in preparing reading improvement programme.