CHAPTER III

REVIEW OF THE PAST STUDIES

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3.1 Introduction

Research work in the field of Reading was originated in 1844. Valentine took keen interest in the nature of the perceptual processes in 'reading'. Cattell, Erdmann, Dodge and many other eminent investigators pioneered the lead of Valentine. They concluded that pupils read phrases, words or letters and recognize them according to their intimacy with the material read, their competence in reading and difficulty value of the material read. They tried to find out the relation of various factors with the reading activity of the pupils. Since then various researches relating to Reading increased by leaps and bounds in the U.S.A. and England. During 1881-1890, the number of studies was only 2. In 1911-1920 it was 200. During 1951 and 1957, it rose to more than 700. Many studies relating to Readability, Reading Interests, Hygiene of Reading, Rate of Reading, Scientific aspects of Reading, Factors related to the progress in Reading, Psychological and social aspects of Reading, Physiological aspect of Reading and the comprehension of the material read have seen the light of the day in this period. Experimental researches regarding the improvement of the reading ability, speed or power of comprehension, the
effectiveness of various strategies, preparation and trying out of reading assignments or programmes as well as tests for measuring the Reading Comprehension have been the pivot of intensive study by the investigators in India too.

Before the investigator begins the planning of this research, it is inevitable for him to study the past researches carried on in the field of 'Reading Comprehension', in which he intends to work. It is to be noted that relevant literature is studied, reviewed and shed light on in this thesis. Utmost care has been taken in peeping into various aspects pertaining to Reading Comprehension and concentration has been on the experiments carried on for updating the level of Reading Comprehension of the High School students. The review is divided into two categories as follows:

1. Research work done in India.
2. Research work done in foreign countries.

3.2 Research Work Done in India

The investigator has concentrated his attention solely on the research works carried on in the field of "Reading Comprehension". They are as follows:

Study 1:

In this study, the investigator has pinpointed his objectives as follows:

1. To prepare Reading Comprehension test in English for Std. VIII.

2. To provide a ready-made evaluating instrument to the teacher.

3. To construct appropriate test items in the context of specific instructional objectives and corresponding learning outcomes.

4. To determine the index of difficulty and the index of discrimination of the test items.

5. To select the test items on the basis of the difficulty level and the discriminating power of the items.

6. To understand the features of multiple choice test items and their utility for testing purposes.

7. To study the effectiveness of distractors of multiple choice test items.

8. To develop the skills of test administration and test evaluation in the context of processes of tryout, sample testing and validation.

In this study, the investigator has prepared a blueprint in view of certain specified objectives, evolving
language material and construction of tests were the central activities. It was a battery of 25 sub-tests based on 24 passages meant for Reading Comprehension.

The findings were as follows:

1) Pupils did not find it difficult to grasp the unseen passages. More than 50% of the pupils were above the comprehension ability.

2) Girls were found superior to the boys both in responding behaviour as well as in performance.

3) Test-items on arranging sentences according to the sequence of events was found to be rather difficult to the lower group of pupils.

Study 2:


The investigator has compared the new language material with the textbook material. His objectives were to weave the language material more consciously for increasing proficiency, lessening of the length of the language material and finding out its effect on pupils' achievement, to develop familiarity with reading material with 80 per cent vocabulary according to the textbook and 20 per cent leaving out from the matter. It also
aimed at addition of some more varieties of exercises and selection of learning material, keeping in view the range, availability, coverage and learnability of vocabulary.

For this purpose, an exploratory test was administered in the initial stage. Two groups were formed - The experimental group and the controlled group. They were tested after teaching the groups new language material and textbook material respectively. Analysis of co-variance, 't' test were used for statistics.

The findings were as follows:

1. At the pre-test level both the groups were equal in their achievement.
2. Proper use of the structure did not specify any considerable change in the control group.
3. Use of different sentence patterns in the experimental group indicates considerable achievement because of the pattern practice and language material.
4. Even in sentence construction the experimental group established its superiority.
5. In the score of knowledge of syntax, the experimental group proved to be successful. In the areas of translation skill, and guided writing the experimental group achieved success and in vocabulary test a little bit
improvement was observed in the experimental group.

Study 3:


In this study, the investigator has tried to find out inter-relationship among Reading Comprehension, Rate of Reading and Reading Achievement, to study the effect of anxiety of the Rate of Reading and Reading Comprehension, as well as Reading Achievement. Similarly, the investigator has taken into consideration the effect and relation of attitude on Rate of Reading, Reading Achievement and Reading Comprehension. For this purpose, random sampling technique was used. Bio data was arranged on Q₃ and Q₁ values. The effect of independent variables was found on Rate of Reading, Reading Comprehension and Reading Achievement. Cumulative frequencies and cumulative percentile - measures of central tendency - mean and median were used. Critical ratio (t-test) and analysis of variance, partial correlation were taken help of. Reading Ability test, Text Anxiety scale for children, Reading Attitude scale and Thematic Apperception test were the tools used by the investigator.

The findings were as follows:
Interrelationships among Reading Comprehension, Rate of Reading and Reading Achievement were positive and highly significant.

N.Ach. and Anxiety are inversely interdependent variables. N.Ach. and Attitude as well as Attitude and Anxiety are not interdependent variables.

The difference between the means of two groups of reading comprehension was highly significant at both the levels in favour of group A, having low anxiety. Anxiety is the most dominating factor affecting reading comprehension inversely and attitude as the second factor affecting Reading Comprehension. N.Ach. is the least effective factor. The co-efficient of correlation between Reading Comprehension and Anxiety was 0.27. It is negative and highly significant.

Attitude affects Reading Comprehension most positively.

N.Ach. does not affect comprehension so much as anxiety or attitude.

Study 4:

Patel, M.S.; Preparation and tryout of Graded Reading Comprehension assignment in English for Std. IX and study its effect on Reading Comprehension. (M.Ed. Sardar Patel University, 1975).
It was the purpose of the investigator to measure Reading Comprehension ability through graded Reading Comprehension assignments. Secondly the investigator wanted to construct test items, select some of them, upon the basis of difficulty value, to provide a ready-made evaluating instrument and to improve the children's ability to comprehend through graded assignments.

Preparation of items of objective type tests, selection of the reading material were the chief activities.

The findings were as follows:

1. The pupils could enjoy the material and consolidate their knowledge.
2. The teacher can bring in a novel situation and make the pupils fearless and free.

Study 5:


The following objectives were kept in view:

1. To establish norms of Reading Comprehension.
2. To study whether there are any sex differences with regard to comprehension.
To provide a standard measuring tool to secondary schools for Reading Comprehension as well as to know the pupils' comprehension level at the college entrance stage.

To study Reading Comprehension of pupils coming from rural areas, urban areas and pupils coming from different Socio-economic status groups of the society.

For this purpose, thirteen districts of Gujarat State were covered up in the tryout sample. 299 boys and 101 girls of various schools were given the tryout sample.

A two-way grid showing skills of comprehension was used. Sub-tests were prepared. Each component was given due weightage. 140 items were included in the 9 sub-tests. Two hours were given to each unit. For testing item validity, T.L. Kelley's method of 27% had been adopted which is based on two extreme groups on the basis of total score on the test itself. The second one was the chi-square technique. Sub-tests were arranged with the help of 2 methods - Discrete method and Omnibus method. According to the order of difficulty level, they were arranged. Average difficulty level of the tests was 51.77.

Study 6:

In this study, the investigator has the objectives to study comprehension, the effect of sizes of letters on reading speed and comprehension, to study the effect of contents of reading material on reading speed and comprehension.

For this purpose, a factorial group design 2x3x3 was employed in order to study the interactions between types of format, sizes of letters, and contents of reading material upon reading speed and comprehension. The effect of levels of intelligence and vocabulary of the pupils were controlled. Tools like Group Intelligence test by Lele, a vocabulary test, Reading material, Reading speed measure and a Reading Comprehension test were used.

Measures of central tendency and dispersion and covariance techniques were used.

The findings were as follows:

(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.

(2) Reading Comprehension is positively influenced by the size of letters (12 point type) and story-type but not by the type of format. History type of content in single broad column of 10 point type or two narrow columns of 14 point type and story and biography types of content in two narrow columns of 10 point type or 12 point type of letters aid better Reading Comprehension.
Study 7:

Koppar, Bina: An Inquiry into Factors Affecting Reading Comprehension (in English) (Ph.D. Edu., M.S. University, 1979).

This study was done to fulfill the following objectives:

1. To study the level of Reading Comprehension of pupils of XI Std. of Gujarati medium schools.

2. To study the relation of Reading Comprehension with attitude to reading, anxiety, academic motivation, socio-economic status, dependency and independency.

3. To conduct case studies of pupils with low and high scores in the Reading Comprehension test in order to find out some other factors affecting Reading Comprehension.

For this study, a sample of 555 pupils was taken. For case studies, 10 pupils were selected. Six tools were used. They were:

1. Reading Attitude Scale (Patel, 1976)
2. Silent Reading Comprehension Test (Patel, 1971)
3. Junior Index of Motivation JIM (Frymier, 1965)
4. Test Anxiety Scale for Children (Sarobon)
5. The Socio-economic status Scale (Prayag Mehta)
6. Pre-adolescent dependency Scale (Pareek and Rao, 1970)
The data was analysed in the form of:

1. Means and Standard Deviation
2. Correlation Matrix
3. T values
4. Frequency distribution and bi-variate ranges.

The following were the findings:

(1) High reading attitude leads to high Reading Comprehension.
(2) High dependency leads to high Reading Comprehension.
(3) High anxiety leads to low Reading Comprehension.

The other factors that had an effect on Reading Comprehension were:

(a) Lack of reading readiness.
(b) Lack of academic motivation.
(c) General indifference to the study of English language.
(d) Poor teaching
(e) Lack of proper direction
(f) Low educational status of parents.
(g) Social and economic compulsions.

Study 8:

The following objective was kept in centre:

1) To study and determine the effects of teaching English through traditional method and through planned units.

Forty pupils were in the experimental group and thirty-four pupils were in the control group.

Pre-test was administered. Then the treatment was given to Group A through planned units and Group B through traditional methods. Post-test was given. The achievements were compared.

The findings were:

1) The mean achievement score of the control group was 39.62 and that of the experimental group was 54.7.

2) There was a positive relationship between the teaching of English through planned units and ability to comprehend the content and the language material, as well as ability to make use of different sentence patterns through correct syntactical changes and to answer questions on the passage for comprehension.

3) There was a positive relationship also between the teaching of English through planned units and ability to translate and describe and express their own thoughts.
Study 9:


The objectives of the study were to evolve a process for general improvement in the thought process, improvement in the preparation of vocabulary lists and reading materials, in the methodology of teaching reading in the beginning and improvement in the methodology of evaluation of the reading programme.

The hypotheses tested were:

(1) The speed of reading comprehension of the programmes based on old reading concept would not create so good readers as through the programmes based on the modern concept.

(2) The difference between the means of the speed of comprehension of both the groups would be favourable to the new reading programme and would be statistically significant.

For this purpose, 2000 pupils of primary schools from forty eight classes of Poona were selected on the basis of intelligence, physical maturity, socio-economic status of the parents and educational facilities available.

The findings were as follows:
(1) Total performance of the experimental group was better than that of the control group, and the difference between the mean scores of both the groups was found to be statistically significant.

(2) The new programme was accepted by the teachers without any higgle or haggle.

(3) The hypotheses were found statistically significant in favour of the experimental reading programme.

Study 10:


(1) The investigator wanted to study the relationship between reading ability in English and intelligence, motivation and selected environmental variables of school and college students in English classroom.

(2) Basic differences in the requirements for an adequate programme of reading instruction in English in our schools and colleges.

(3) The possibility to synthesize a reading oriented E.L.T. strategy for the school and college students.

The investigator made a survey of psycho-linguistic and socio-linguistic variations as related to reading ability
and examination of the relative importance of perceptual, contextual and conceptual reading skills in English.

The findings showed that:

(1) Reading oriented E.L.T. strategy was generally dependent on their verbal intelligence and language proficiency.

(2) The reading instruction strategy combining the perceptual and conceptual skills could lead to significant improvement in Reading Comprehension, levels of school students, irrespective of their verbal intelligence and initial reading ability.

(3) Poor readers were found to have responded most favourably to a strategy based largely on the perceptual skills. Those with high initial reading efficiency levels were found to respond most favourably to the training in advanced conceptualization and comprehension skills.

(4) Contextual presentation of the vocabulary and the structural items was found to be an effective and practicable reading oriented E.L.T. strategy for the school students.

(5) The strategy was also found to be equally favourable to the students with different intelligence and initial reading abilities.
Study 11:


The investigator wanted to apply various techniques of developing Reading Comprehension and to study the progress in it by implementing these techniques. The second objective was to measure the relative speed of comprehension, by applying the techniques.

The hypotheses were:

(1) Deficiency is visible in the capacity of comprehension of the Gujarati material.

(2) The power of Reading Comprehension can be increased by applying various techniques.

(3) This power of Reading Comprehension is cultivated to a greater degree in the pupils of urban areas than in those belonging to the rural areas.

The tests were standardized for Stds. VIII, IX and X. There were 10 sub-tests with 96 items. The groups were equalized. 25 assignments were prepared, 13 techniques were tried out and pre-tests and post-tests were given.

The findings were as follows:
(1) There was a fair degree of improvement in the scores of average reading capacity by implementing various techniques. But remarkable progress could not be achieved in the relative speed of reading and comprehension.

(2) Lack of reading ability with comprehension and the progress by applying various techniques could get support.

(3) It is not proved that the ability to read with comprehension can be better developed in the pupils of urban areas than in those belonging to the rural areas.

Study 12:

Shah, B.B.: An experimental investigation of the effects of selected teaching strategies on the development of Creative Thinking and Achievement in Science, Ph.D. Edu., M.S. University, 1981.

The objectives of the study were:

(1) To find out the effectiveness of the strategies - St₁, St₂, St₃ and St₄ on the development of creative thinking ability of standard VII pupils, and also on the achievement in Science.

I.Q. test, creative thinking test, (T.T., C.T., Figural version) and pre-achievement test were administered various statistical techniques like means, S.D.'s correlations and analysis of variance (ANOVA) were applied.
The findings were as follows:

(1) The difference between the selected strategies for their effectiveness in developing creative thinking and achievement in Science of seventh class pupils is significant at .01 level of significance.

(2) It was also found that the four strategies of teaching had significantly differential effects on the development of originality and flexibility but the F ratio for the effects of strategies was found to be not significant in the case of fluency.

(3) The St₄ produced significantly high mean scores for achievement of the pupils than all other strategies. Strategies, St₃ and St₂ produced significantly higher mean scores than St₁ and there was no evidence of significant difference between St₃ and St₂.

(4) Strategy St₄ was more effective in developing creative thinking and its components as compared to all other strategies.

(5) It is observed that the effects of strategies were dependent upon the level of intelligence, sex and creativeness of the pupils.

(6) St₃ i.e. dominancy of practical work did not show any significant superiority over lecture with respect to low intelligence, low creativeness and girls.
Study 13:

Shelat, M.H.: Impact of Reading Improvement in Gujarat on Reading Comprehension of Class VIth pupils of varying Intelligence and coming from different S.E.S. (Ph.D. Edu., Sardar Patel University, 1985).

This study had the following objectives in view:

(1) To prepare a reliable and valid tool for measuring reading comprehension in Gujarati of pupils of Class VI.

(2) To prepare reading improvement programmes in Gujarati for pupils of Class VI.

(3) To study the impact of reading improvement programme on reading comprehension of pupils of Class VI.

(4) To study the impact of reading improvement programme on reading comprehension in context of S.E.S.

(5) To study the impact of reading improvement programme on reading comprehension in relation to intelligence.

(6) To study the impact of reading improvement programme on reading comprehension of good and of poor reader.

A test was constructed in order to improve reading comprehension and as the first step in standardization, 96 items were prepared with due weightage to the components of Reading Comprehension.
The pea-body picture vocabulary test was administered to assess the verbal capacity and his reading achievement was determined, through word meaning paragraph, meaning sub-tests of the Stanford Achievement Test, selected as the characteristics of the under-achievers and the random samples of the achievers were:

1. Sex difference
2. Intelligence
3. Reading achievement
4. Composition skills
5. Reading instructional levels
6. Spelling achievement
7. Quality of hand writing
8. Handedness
9. Entrance age
10. K.G. attendance
11. Readiness for Reading Instruction and

These characteristics were measured from the scholastic records. The data was statistically analysed using the critical ratio, t test and chi-square.

The findings of the study were as follows:

1. A comparison of the subjects from the two districts indicated no significant differences between the proportion of males in each grade.
Chronological age of the subjects and the proportions of subjects who scored in the first and second stanines of the reading achievement test for grades four and six, the intelligence of the subjects from school district A were significantly greater than that of the subjects from school district B. For grade 5, the reading achievement of the subjects from school district B was significantly greater than that of the subjects from school district A. The proportion of subjects from school district A whose reading instructional levels was significantly greater than the proportion from school district B.

Davis's method of estimating the true under-achievement was used to identify those subjects whose under-achievement in both word Meaning and paragraph Meaning was significant at the five and ten per cent levels of confidence. The hypothesis that there was no significant difference between the incidence of under-achievement in reading of the subjects of grades four, five and six of the two school districts was rejected for the under-achievers selected at both the five and ten per cent levels of confidence. The following hypotheses were accepted, concerning the under-achievers identified at the ten per cent level of confidence.

There was no significant difference between the selected characteristics of the under-achievers in reading. There was
no significant difference between the selected characteristics of the achievers and under-achievers in all grades of each school district: with one exception. In school district A, the proportion of under-achievers, whose reading instructional levels were below grade placement was significantly greater than the proportion of achievers.

The following conclusions seem warranted from the findings:

(1) It is possible to design a reading instructional programme to minimise under-achievement in reading.

(2) No significant differences were found between the selected characteristics of the under-achievers in the model school district and the comparison school district.

(3) Significant differences were not found in the selected characteristics of the achievers and under-achievers in reading in each grade of both school districts.

Study 2:

"An Investigation of the relationship of pre-school training to the Reading Achievement of third and sixth grade students".  

The purpose of the study was to determine whether four variables had an effect in the reading achievement of third and sixth grade students.
The variables were:

(1) Absence or presence of pre-school training.
(2) The type of pre-school training.
(3) The form of curriculum practised.
(4) An Interaction between two or more of the variables.

358 subjects were selected. Third grade students were given the Level-1, form S, comprehensive tests of basic skills and sixth grade students were given Level-II Form S from which total Reading scores were utilized:

(a) Parents gave socio-economic status by indicating their educational and occupational levels.

(b) K.G. Teachers - A Curriculum Emphasis Scale -

The findings of the study were:

(1) Third-grade students with pre-school training scored higher in Reading Achievement than those lacking it.

(2) There was no significant difference in Reading Achievement between students attending public or private schools and those who are exposed to an academic or developmental form of curriculum.

(3) Third grade students attending private schools, using an academic curriculum scored higher than students who attended private schools using a developmental curriculum.
Third grade students attending public schools with a developmental curriculum scored higher than students who attended private schools with a developmental curriculum.

Study 3:

"A study of the effects of a remedial reading program upon Reading Attitude, Reading Achievement, Self Concept and Intellectual Achievement Responsibility of selected students of the Fourth and Fifth Grades".

This study was intended to determine the effectiveness of a specifically designed Title I remedial reading program on a selected group of students.

It sought whether there was any change in attitude towards reading as a result of the program and any betterment of intellectual achievement responsibility.

The remedial reading group comprised of 46 students. Using the differences between the means of the pre-test and post-test scores from the SRA Achievement Series Esres Reading Attitude Scale, Piers-Harris children's Self Concept scale and the Intellectual Achievement Responsibility Questionnaire the total group and the sub-groups from each grade level were compared. The correlated test was used to find the significance of the difference between the pre-test and post-test means obtained for the total group and the sub-groups. The .05 level of confidence was used as a basis for the acceptance or rejection of the null hypothesis.
It was found out that there was improvement in the area of total reading achievement in the total group and in the fourth and fifth grade sub-groups. The same trend was found in the area of attitude towards reading as well as in the area of self-concept. No significant improvement was indicated in the fourth grade sub-group in self-concept. There was significant improvement in the area of intellectual achievement responsibility.

Study 4:

"The Impact of two types of reading skills development activities on listening vocabulary and Reading Comprehension".6

The purpose of this study was to assess the impact of two different types of instructional material for reading skills development on two groups. This was accomplished by measuring the difference between the changes in listening vocabulary and Reading Comprehension (literal, inferential and total). The experimental group utilized the newspaper and newspaper related activities to facilitate the development, reinforcement and enrichment of reading skills. The other group used the basal reader and its work book activities. The variables of reading level etc., and age were assessed to determine their impact.

The sample was of 161 students. The assignments of students to the experimental and control groups were made randomly within grade and reading levels. Both groups were
administered the Auditory vocabulary sub-tests and the Reading Comprehension sub-test of the Stanford Diagnostic Reading test (SDRT) Brown Level, Form A as a pre-test. Then the experimental group was exposed to the treatment and the control group received instruction from the basal reader workbooks. Following the instructional phase of six weeks, both groups were presented using the SDRT Brown Level, Form B. Measures of central tendency and measures of dispersion, analysis of variance designs were used with the F-tests and appropriate tests.

The .05 statistical significance level was used as criteria for acceptance or rejection of the hypothesis.

The findings of the study were as follows:

(1) Highly significant differences between the changes occurred in Listening vocabulary, inferential and total comprehension of the students using newspaper work book activities (experimental group).

(2) No significant differences were found in the control group.

(3) For both the groups, the difference between the changes in literal comprehension failed to reach significance.

(4) More significant were the scores in total comprehension indicating a positive effect of daily newspaper activities.
Looking to the groups by reading levels and age, the differences between the changes in listening vocabulary, were greater for the upper reading levels and among 13 and 12 year olds. There was no significant difference between the sexes.

For inferential comprehension, upper reading levels, female and other students showed greater change-difference. Although the reading level, age and sex were not consistent in their impact upon performance on the reading skills measured, the experimental group appeared to influence performance positively in listening vocabulary, inferential and total comprehension.

Study 5:

"The effects of Instructional methods on Reading acquisition systems".

This study focused its attention on the effects of variation in instructional methods during the beginning stages of reading on (a) the differential development of linguistic sub-systems underlying reading achievement and (b) the relationship between the differential development and Reading Comprehension.

Do the patterns of predictors for Reading Comprehension differ systematically as a function of differential
development in the linguistic sub-system?

(3) Does the pattern of predictors that account for individual differences in Reading Comprehension at the acquisition level differ from the sub-systems that can be mobilized by more skilled readers?

Four instructional programs were designed to test the hypothesis that variation in instructional methods will differently develop sub-systems for attaining Reading Comprehension. Each instructional program laid emphasis on one of the four linguistic sub-systems. Graphophonic, morphophonemic, semantic and syntactic. For collecting data, two measuring instruments. The Metropolitan Reading Achievement Test (MRAT) and a criterion referenced test were used. The results were analysed using analysis of variance and discriminant analysis:

(1) ANOVA results also supported the hypothesis that variation in instructional methods leads to consequent variation in development of linguistic sub-systems underlying achievement in Reading Comprehension.

(2) With direct supplementary instruction, beginning readers can increase their development in all four linguistic sub-systems over and above the level of development, attained in their regular instruction in reading acquisition.
Part II - Regression analysis was used to determine the differential sub-system organization of beginning readers as a result of variation in instructional treatment. It showed that:

(1) Instructional methods do make a difference in (a) developing linguistic sub-systems in beginning readers; (b) the pattern of contribution of these sub-systems to variance in comprehension.

(2) Two general factors, Word Identification and Verbal Reasoning accounted for 67% of the variance in Reading Comprehension. Comprehension loaded 79 on verbal Reasoning but only 27 on Word Identification. Verbal Reasoning has a great impact on variance in comprehension but word Identification is not so much impressive. This is true in the case of beginning readers as well as skilled readers.

Study 6:

"The effectiveness of a selected set of study aids in Reading Comprehension of fifth and sixth graders".

The objective of the study was to investigate the differential effects of a selected set of study aids used in combination in written instructive material upon comprehension and retention scores of fifth and sixth graders.
A post-test and post post-test random control group design with three levels of stratification was used. 84 students received treatment #1 which consisted of paragraph structure aids, study grade material, maze technique activities and multiple choice items. 80 students in treatment #2 received only one type of paragraph structure aids (internal organization aids) multiple choice items and placebo material. Answers for all seat work activities suitable to the treatment #1 and treatment #2 subjects were for purposes of self-correction and feedback.

The findings of this study indicated significant differences at the .05 level for upper third and middle third achievers in favour of the treatment #1 but no significant difference for lower third.

On post post-test measures findings were significant at .025 and .05 respectively for upper third and middle third groups in treatment #2. No significant difference was found for lower third achievers at .05 level on post-post test criterion measures.

The conclusion would be a set of study aids used in combination can increase comprehension abilities.

3.4 References


