THE VALUE OF THE CONTROLLED READER APPROACH IN JUNIOR HIGH SCHOOL FOR IMPROVING SPEED AND COMPREHENSION

by

MARILYN CHARLENE JENSEN

B. S., Emporia State Teachers College, 1962

A MASTER'S REPORT

submitted in partial fulfillment of the

requirements for the degree

MASTER OF SCIENCE

College of Education

KANSAS STATE UNIVERSITY
Manhattan, Kansas

1969

Approved by:

Major Professor

TABLE OF CONTENTS

CHAPTER I

INTRODUCTION

Albert Harris said, "a literate adult in today's hectic world goes through more reading material in a week than his greatgrandfather probably covered in a year."[1] These words help express the reason for the mounting pressure on schools today to strengthen their reading programs and also helps explain the wealth of mechanical devices which fill the modern classrooms.

I. THE PROBLEM

The need for fluency in reading. Because reading is a complex activity, students not only need to be taught the fundamentals of comprehension but also must be equipped with the skills that make reading a fluent and efficient process. They need to be given specific instruction in the visual-functional and perceptual skills that enable them to make maximum use of all the information and experience they bring to reading. "Students need to build coordination and motility so that they will become more comfortable readers; to develop better directional attack in order to be perceptually more thorough and systematic; to achieve quicker word recognition and the ability to think and associate more rapidly in order to develop the fluency that will make reading more enjoyable and rewarding."[2]

---

[1] Albert J. Harris, How to Increase Reading Ability (N.Y.: David McDay Company Inc., 1961), p. 503.

[2] Controlled Reading (Huntington, N. Y.: Educational Developmental Laboratories,-P-351, 1968) p.o.

Speed and comprehension problems. The developmental reading program has three distinct problems which involve rate and comprehension. The following problems will be visible to the teacher after giving a reading survey test: (1) a child who is slow in rate and satisfactory in comprehension, (2) a child who is satisfactory in rate but poor in comprehension, and (3) the child who is retarded in both rate and comprehension. These problems, along with a brief comment about the approach being used with the students in this study, are explained below.

A child who is poor in both speed and comprehension needs to concentrate on the improvement of comprehension. Speed should not be emphasized until this child can read with understanding. It is believed that as the extremely slow student learns to read with more effective comprehension, his speed will increase without special attention.

The child who reads rapidly but with poor comprehension needs training which emphasizes comprehension. It is not advisable to stress slowing down the rate, since it is desirable to retain as much speed as is consistent with adequate comprehension. The teacher should look for reasons for poor comprehension. This child may profit from the rate training if more time is stressed building a purpose rather than emphasizing speed. Through the pre-reading activities a child having the problems mentioned above will be able to read in a more organized way, therefore improving his comprehension.

Rate training can be particularly useful with the child who

has satisfactory comprehension but is slow in rate.

Methods used to solve the problem. Pupils must be taught to adjust their reading speed to the materials and their purposes for reading. This can be taught through the book-centered approach or the machine centered-approach.

Using the book-centered approach, the child is encouraged to move his eyes as rapidly across the line of print as is possible, time himself on passages of a particular length, force himself to make only one fixation per line on narrow column materials, and force himself to move the eyes down the page. The pupil is also encouraged to fight against regression. This can be done by cutting a slot out of a piece of paper and moving the paper down the page. There are various techniques which can be used while teaching flexibility in reading using the book-centered approach.

The machine-centered approach as described below is one method of improving rate. The machines require the pupil to see more rapidly, more accurately, and more orderly, and to pay better attention to what was seen.

Several mechanical aids are on the market for use in regulating the rate at which reading content is exposed. There are tachistoscopes which flash numbers, words, phrases and sentences at different speeds and there are also pacers of several kinds. Some of these pacers are the Science Research Associates Reading Accelerator, Shadowscope Pacer, Reading Rate Controller, and the Reading Pacer. These pacers have reading material placed within the frame of the instrument. A metal

arm or shadow can then be moved down over the reading material covering a line at a time, and the reader has to read fast enough to read the line before it is covered. Rate can be regulated to different speeds. Instruments using filmstrips are also available for rate practice. One of these is the Controlled Reader by the Educational Developmental Laboratories.

The Controlled Reader, which permits timed left-to-right presentation of story materials, directly develops certain visual-functional and perceptual abilities, and at the same time indirectly develops the reader's comprehension, organizational, and interpretive abilities.[3]

Educational Developmental Laboratories has developed an extensive library of over eight-hundred filmstrips. This library includes pictures for the readiness level, picture and word games for the pre-primer level, and stories starting at the primer level of first grade and ranging through college and adult level. Every student, regardless of his starting level of reading achievement, can be trained with content that permits successful comprehension and allows fluency to develop.

The selections in the Controlled Reader filmstrip library were chosen to include a wide variety of interesting topics: fictional, factual, humorous, and serious. As a result of reading these varied

---

[3]Stanford E. Taylor, Speed Reading vs. Improved Reading Efficiency (Huntington, N.Y.: Educational Developmental Laboratories, 1962) p. 16.

selections, the student learns to sense differences in style and method of organization, and to adjust his reading approach accordingly.[4]

The use of pacing devices can become a ritual if the teacher fails to adapt the machines to the individual needs. These errors in use, as well as the lack of substantial research at the time they were being purchased by the schools, has caused reading authorities such as Robinson, Spache, Smith, Harris, and many others, to challenge the choice of the machine-centered approach over the book-centered approach.

Unfortunately there is much yet to be discovered about increasing of rate through the use of the machine approach. No one would suggest that the use of the Controlled Reader alone makes a total program. However, the fact that it has a legitimate role in a balanced reading program should not be denied. Through the comparison of a control group and experimental group, this study was undertaken in an attempt to find answers to the following questions: Can the controlled reader be used as another teaching approach in developing comprehension and rate, and prove to have as much or more value than other approaches?

II. HYPOTHESES

The four hypotheses which were tested are:

(1) Do the students, whose previous rate/comprehension scores are above the sixtieth percentile, make greater gains through the use of the Controlled Reader than do students of equal abilities in the

---

[4] Controlled Reading (Huntington, N.Y.: Educational Developmental Laboratories, -P-351, 1968) p. 1.

control group?

(2) Do the students, whose previous rate/comprehension scores are below the sixtieth percentile, make greater gains through the use of the Controlled Reader than do students of equal abilities in the control group?

(3) Do the students with intelligence quotients 110 and above, who are using the Controlled Reader, make greater gains in rate and comprehension than students with similar mental abilities in the control groups?

(4) Do the students with intelligence quotients between 110 and 90, who are using the Controlled Reader, make greater gains in rate and comprehension than students in the control group with similar intelligence quotients?

III. DEFINITIONS OF TERMS USED

Controlled Reader by Educational Developmental Laboratories. Controlled Reading is that part of a reading program that involves the left-to-right presentation of reading material at predetermined rates. The Controlled Reader presents reading material at controllable rates in either a left-to-right fashion or line by line. The machine can be preset to automatically feed materials at rates from sixty to one thousand words per minute. Commercial programs accompany this machine.

Reading Accelerators or Pacers. Reading accelerators or pacers are devices which have been designed most specifically to improve

rate of reading. Regardless of type, all are designed to place the reader in a position in which he must read at a rate fast enough to outdistance a moving object or until it is inconvenient to see the reading material.

Filmstrips. The story filmstrips used with the Controlled Reader contains a complete story or article which takes approximately five minutes reading time. Each story on the filmstrip is presented in full in the student's manual. The children are advised to survey the story first and discuss vocabulary words which are used in the story. Comprehension questions follow the story.

Rate/comprehension. The Iowa Silent Reading test, Part I, tests both rate and comprehension. The term rate/comprehension, as used in this experiment, was determined by averaging percentile scores of these two sections. (Example), Mary had a rate score in the 26th percentile, and a comprehension score in the 38th percentile. Her rate/comprehension score is 32.[5]

---

[5]This term is original, and designates to the writer the amount of concentration necessary for the improvement of both rate and comprehension.

CHAPTER II

REVIEW OF LITERATURE

As an ever-increasing body of knowledge finds its way into books which students encounter, the demands for rapid assimilation are becoming formidable. However, it is not the need for increased rate which has caused controversy, but the means by which increased rates of reading can be attained.

Considerable research has been undertaken in an attempt to evaluate the effectiveness of reading improvement methods. Most of this research is centered around the machine-centered approach as compared to the book-centered techniques. Summarization of the various investigations will be given below.

I. PURPOSE FOR RATE TRAINING

Need to increase speed. In today's world of rapidly expanding knowledge, Harris believes that students must be taught to absorb, comprehend and retain more and more ideas and information. The average reader wastes a great deal of useful time in unnecessarily slow reading. There is evidence that the typical high school student can increase his rate of reading by twenty-five to fifty percent without any decline in accuracy of comprehension.[1] All of a person's rates can be improved, but improvement in speed alone should not be the goal; flexibility in adjusting speed to different situations is

---

[1] Albert J. Harris, How to Increase Reading Ability, (N.Y., David McKay Company Inc., 1961) p. 503.

the achievement toward which learner and teacher alike should direct their efforts. There is no one rate of reading that is appropriate in all situations; the efficient reader varies his rate according to his purposes and the requirements of the material.

The need for instruction in reading for various purposes is emphasized in Boyd's report and others before him. Boyd points out the inability among even good students to adapt rate to purpose.[2]

Major rates of reading. According to Strang and Bracken there are four major comprehension rates which should be taught in developmental reading.[3]

Skimming rate. The first step in effective study or intensive reading involves previewing, surveying or skimming. In order to learn to skim, the child must develop attention and concentration and be willing to settle for less than complete comprehension. Skimming is a process of quickly passing over an entire selection or passage to get a general impression of it. A person scans when he sweeps his eyes over a list of items. Skimming rate is used to locate information, answer a specific question, and in recreational reading as students review magazines or brochures. It is also a useful technique in preparing for tests or to increase retention.

---

[2]Rae Boyd, "Rate of Comprehension in Reading Among Sixth Form Pupils in New Zealand," Reading Teacher (Newark, Delaware: December 1966) p. 241.

[3]Ruth Strang and Dorothy Bracken, Making Better Readers (Boston: D.C. Heath Company, 1957) p. 120.

Rapid reading. Rapid reading is used mainly to review familiar material, or to get the main idea or central thought. It can be used on any material which main ideas and supporting facts are needed.

Study reading. Study reading or slow reading is to be used to read materials with maximum understanding. Here it is necessary to use a survey-question-read-review-recite, approach. Slow reading should be used in textbooks, technical articles, and any other material in which an individual needs to read in detail.

Careful and reflective reading. Careful reading is used in following directions, to reflect on content, or to evaluate. Materials which require careful reading could be the Bible, poetry, editorial pages etc. This includes materials with unusual vocabulary or styles.

II. THE TIME TO INCREASE SPEED

Well-controlled studies at the first-grade level have suggested that no improvement in reading skills, following mechanical device training, may be expected.[4] A child must first gain control over the mechanics of reading, (recognition of words, gathering meaning, and using study skills), before he is freed to cover the pages of print more rapidly.[5]

In a study conducted by Sister Herculane, it was recommended

---

[4]Reginald L. Jones and Earl Van Why, Journal of Developmental Reading (Newark, Delaware: Spring 1963) p. 177.

[5]Nila Banton Smith, Reading Instruction For Today's Children (Englewood Cliffs, N.J.: Prentice-Hall, Inc. 1963) p. 364.

that since the program of instruction at the elementary level stresses the development of the fundamentals of reading (word-recognition and comprehension), the junior high school level seems to be best suited to the formal introduction of and stress on rate skills.[6]

Betts and Harris[7], Cason[8], and Bridges[9] agree with Sister Herculane's findings that rate training should be included in developmental reading programs and should begin at or above the sixth grade. This is only a general statement and does not include individuals who might need remedial help in this area.

III. MECHANICAL DEVICES VS. BOOK-CENTERED APPROACH

Considerable research has been undertaken in an attempt to evaluate the effectiveness of reading improvement methods. Several of these studies have been conducted in regard to the use of mechanical devices in teaching reading in the elementary and secondary schools. The results have been both positive and negative.

Forbes Bottomly was responsible for an extensive study with the

---

[6]Sister M. Herculane, "A Survey of the Flexibility of Reading Rates and Techniques According to Purpose," Cited by Lawrence Hafner, Improving Reading in Secondary Schools (N.Y.: MacMillan Company, 1967) p. 296.

[7]Betts and Harris, Cited by, Henry P. Smith and Emerald V. Dechant, Psychology in Teaching Reading (Englewood Cliffs, N.J.: Prentice-Hall, Inc. 1961) p. 224.

[8]Elosie Cason "Mechanical Methods for Increasing the Speed of Reading," Contributions to Education, No. 878 (N.Y.: Teachers College, Columbia University, 1943).

[9]L. H. Bridges "Speed Versus Comprehension in Elementary Reading," Journal of Educational Psychology, (Vol. 32, 1941). pp. 314-20.

Controlled Reader. The purpose of his study was to find out if a special short-term reading program involving the Controlled Reader might be more effective in boosting reading speed and comprehension than the regular developmental reading program of the Spokane Schools. The experiment involved 460 pupils from two widely-separated Spokane Elementary Schools. One school drew pupils from an upper-middle socioeconomic neighborhood, and the other drew pupils from an upper-lower socioeconomic neighborhood. He used the fifth and eighth grades and included all pupils of high and low as well as average scholastic abilities. Control pupils were matched with experimental pupils on the bases of the Otis Quick Scoring Mental Abilities Test and Battery scores on the Stanford Achievement Test. On the test given immediately after completion of the experiment, it was found that there was no significant mean difference between the eighth grade groups in the school from the upper middle socioeconomic, except in the vocabulary category. In the lower socioeconomic area, both the mean reading speed score and the mean vocabulary score of the fifth-grade experimental pupils were significantly higher than the control group. In both schools and in both grade levels the experimental students who scored in the upper third of their group on the Stanford Achievement battery displayed a significantly higher mean score in reading speed after completing the program. However, the reading scores of pupils who exceeded 300 words per minute on the pre-test, scored lower, or nearly the same on the post-test.[10]

---

[10]Forbes Bottomly, "An Experiment With The Controlled Reader," Journal of Educational Research (Vol. 54, No.-7, March, 1961).

Similar to Bottomly's study were studies made by Weeden and by Robinson. Weeden found that the experimental-trained group gained more in rate than the book-centered group. However, his gains were apparent only on a test using machines, and not on ordinary reading tests. Robinson reported an increase in rate and comprehension.[11]

Jones and Why worked out an experiment with sixty-six pupils in the fourth grade and sixty-two pupils in the fifth grade. Pupils in the experimental group were given training with a Speed-i-o-scope and the prepared materials which accompanied it. Training was given for three months. Concurrent with the experimental training, a control group matched for ability and reading achievement received only the regular reading instruction. The Iowa Silent Reading Tests were administered to both experimental and control groups before and immediately following rate training. The Lorge-Thorndike Intelligence Tests were administered to both experimental and control groups before the experiment. The results reported from this study were: (1) a statistically significant gain in rate occured for the rate trained fourth-grade group. No change in rate occured for fifth-grade experimental subjects. (2) With the exception of reading rate for the control group grade four, both the experimental group and their matched controls made statistically significant changes from the pre-test to the post-test. (3) Those pupils who were low on a pre-test

---

[11] Weeden and Robinson, Cited by, Henry P. Smith, and Emerald V. Dechant, Psychology In Teaching Reading (Englewood Cliffs, N.J.: Prentice-Hall, Inc., 1961), pp. 224-34.

measure of reading rate for a test of reading comprehension did not benefit any more from rate training or absence of such training than did pupils who were initially of middle or high status on these measures.[12]

Contrary in part, to the studies found above, Thompson found greater gains in reading rate resulting from a book-centered approach than from the use of the Controlled Reader. He reported no significant differences in reading comprehension between groups. However, in this study, losses in flexibility and adapting rate appeared to be greater in the book-centered group than in the group trained by the Controlled Reader.[13]

IV. CONCLUSION

Judging from the studies mentioned and the many journal reports, it can be said that most machine-centered programs succeed in varying degrees in improving a developmental reading program. The Controlled Reader approach has been proven to be highly motivational and successful in encouraging students to apply themselves. It is meant to be used by competent readers who can read grade level material comfortable and efficiently, and who have indicated, by their good

---

[12]Reginald L. Jones and Earl Van Why, "Tachistoscopic Training in the Fourth and Fifth Grades," Journal of Developmental Reading (Newardk, Delaware: Spring 1963). pp. 177-85.

[13]Carl L. Rosen, "Mechanical Devices for Increasing Speed of Reading," Journal of Reading (Newark, Delaware: Vol. X No. 8 May, 1967). pp. 569-72.

comprehension, that they have mastered the skill of careful and inclusive reading. Practice at the lower levels was more effective than rate training.[14] It is also acknowledged that mechanical devices are not replacements, but aids to the teacher.

There is still a lack of empirical data available to justify the random use of machines for improving rates of reading with undifferentiated groups of students.

The following study involving junior high pupils in the Belleville schools was undertaken to compare the results achieved through the use of mechanical devices with those obtained through the use of book-centered techniques.

---

[14]Stanford E. Taylor, "Reading Instrument Usage," Reading Teacher (Newark, Delaware: May, 1962). p. 453-54.

CHAPTER III

METHOD

I. PURPOSE

Introduction. This study was designed to answer four questions about the machine-centered approach versus the book-centered approach. (1) Do the students, whose previous rate/comprehension scores are above the sixtieth percentile make greater gains through the use of the Controlled Reader of equal abilities in the control group? (2) Do the students, whose previous rate/comprehension scores are below the sixtieth percentile, make greater gains through the use of the Controlled Reader than do of equal abilities in the control group? (3) Do the students, who are using the Controlled Reader with intelligence quotients 110 and above, make greater gains in rate and comprehension than students with similar mental abilities in the control group? (4) Do the students, who are using the Controlled Reader, with intelligence quotients between 110 and 90 make greater gains in rate and comprehension than students in the control group with similar abilities?

II. SUBJECTS

Description of subjects. The pupils involved were enrolled in grade seven at West Elementary School in Belleville, Kansas. From three classes of seventh-graders two groups which meet in mid-morning were chosen to be included in the experimental and control groups.

The remaining seventh grade group meets in the afternoon, and was not considered for the study. Before school started, these classes were grouped by the principal. The students were ranked in order of achievement according to scores from the Stanford Achievement Tests, and then divided so each group had students of equal achievement. The control group meets at 9:12 a.m. for forty minutes. They were followed by the experimental group which met at 9:52 a.m. for forty minutes. These groups were taught by the same instructor.

Twenty-six students in each class were selected to be in the experimental and control groups. Six students were eliminated to effect adequate ability matching.

III. FORMS OF MEASURE

Iowa Silent Reading Test. For this experiment, students were grouped for instruction according to scores obtained from the Iowa Silent Reading Test, Form DM, Test I which tests rate and comprehension. Iowa Silent Reading Test, grades 4-8, provides analytic silent reading tests including rate, comprehension, word meaning, and location skills. It was given in October, 1968. The lessons were followed with a post test, Form CM, given in January, 1969. The Iowa Silent Reading Test was used to determine the mean score for rate/comprehension, determined by averaging percentile scores together, which was used for comparison as called for in the hypothesis.

Otis-Lennon Mental Ability Test. The Otis-Lennon Mental Ability Test was designed to provide comprehensive assessment of the general

mental ability, or scholastic aptitude, of the pupils. This test was given in October, 1968, and was used to determine ability mean scores called for in the hypothesis.

Test results. The following results are based on the Otis-Lennon Mental Ability Test and the Iowa Silent Reading Test given in October, 1968.

	MEDIAN I.Q. SCORES					RATE/COMP. COMPOSITE	
	Total Sample	Above 110 IQ	Below 110 IQ	Rate/Comp. Above 60%ile	Rate/Comp. Below 60%ile	Above 60%ile	Below 60%ile
E.	107	119	99	112	105	73	33
C.	111	119	101	117	108	72	45

It should be noted from these facts that the mean score for students in the control and experimental group, with I.Q.'s above 110 were equal, and students who has I.Q.'s below 110 were nearly equal.

It should also be noted that the mean rate/comprehension score for students in the groups above the sixtieth percentile were nearly equal. Students, who had scores below the sixtieth percentile, showed marked differences in favor of the control group.

III. RESEARCH DESIGN AND PROCEDURES

Research design. Control-group design was used in this study to discover the differences between two groups with similar abilities.

They were selected by flipping a coin. In order to make valid comparison between the experimental and control groups, the same tests were administered to the groups on the same day. (Just prior to the study and following the study.) The mean post-test scores of the experimental and control groups were compared using the t test to determine whether the experimental treatment has brought about a statistically significant change.

Experimental group procedures. Rate training was given to the slow readers four days a week and to the average and above readers three days a week for a period of ten weeks.

The Controlled Reading lessons were carried out with the use of the student Study Guide. The Study Guide contains the complete text of the reading selection and preview instructions so that the student can become familiar with the selection. After his preview, he answers questions which show him how his preview has helped him to become acquainted with the author's style, to anticipate his method of organization, and to become familiar with the content of the selection. In the intermediate-level Study Guides, the student meets the unfamiliar and above-level words in contextual settings and then studies the dictionary entry for the word (the first one-third of the program). On the upper levels, the key words are introduced through programmed frames. Following the vocabulary study, the students read a purpose-setting frame which guides his thinking during the Controlled Reading to follow.

The reading of the selection with the Controlled Reader takes

approximately five minutes.

After controlled reading, the student turns to the comprehension quiz. Coded questions check his ability to recall ability to recall important facts, make inferences, and determine main ideas. He checks his answers with the key and then enters his rate and comprehension scores on the Progress Chart.

The entire lesson on the Controlled Reader takes approximately twenty-five minutes.

Students were grouped in small groups on the base of two factors: reading achievement level and rate of reading with comprehension. Dividing the students into several small groups provided for the proper type of instruction. Slow readers, as well as the exceptionally gifted and fast readers, worked in groups of two or three.

For students having difficulty in raising comprehension scores the teacher allowed them to read the comprehension questions before reading the article. They were encouraged to read only the questions and not the answer choices. This method gives the child who has trouble surveying an article for the purpose of directing his reading, an opportunity to formulate questions in his mind for which he should seek answers during his reading. The teacher did not use this crutch consistently.

When the Controlled Reader was introduced to the pupils for the first time, the reading rate was intentionally set below the rate planned for them. The speed was slowly increased until the students could no longer read easily, then it was set back to a pace all

could easily read. The poorest readers started two grades below their instructional level. As the program progressed, the machine's rate was increased whenever the majority of the pupils in a group exceeded a goal of 80 per cent on the comprehension check. Those failing to achieve the goal were moved to the next lower group while those indicating a lack of challenge were moved to the next faster group. Approximately one-third of the way through the program the level of difficulty was increased and continued to increase as students made satisfactory progress.

The problem of transferring from accelerators to the normal reading situations in which the student does his every-day reading is probably one of the most prominent limitations associated with the use of these machines. The method used in this study to provide for transfer was to have students, after several periods of training, shut off the accelerator approximately half way through the article being read, and require them to read the remainder of the page without external pressures. This method was used for the last two-thirds of the sessions. Before beginning to read with the pacer the students were asked to mark the place in the Study Guide where they would continue reading after the accelerator was shut off.

During the remaining class time, students in all sections were encouraged to apply newly acquired skills by reading paperbacks. Students selected their own books from a paperback library of approximately 150 titles.

Control group procedures. To control the Hawthorne effect, the

group was given a variety of experiences. Some of the exercises were new to these students, and were of high interest level which was an attempted antidote to the Hawthorne effect that the experimental group was expected to experience. These students were also taught in groups. Students with scores in the sixtieth percentile and above covered units, in the Better Reading Book (Globe)[1], skimming, scanning and reading with care. They also completed a teacher-made unit about fact or opinion. (see appendix) These units were interwoven with less complex exercises in which all groups were involved. The exercises covered were: writing story endings, writing short summaries, selecting the what, when, how and why of news articles, selecting a significant detail left out of a news article by the reader, and discussing important points of a short story.

Students with scores below the sixtieth percentile, when working alone, spent time increasing their comprehension and building skills using Reading Skilltexts, (Merrill Co.)[2] and Reader's Digest, (Reader's Digest Services).[3]

The first twenty-five minutes of class time was spent doing the exercises which were planned for the day for each group. The remaining fifteen minutes of classtime was utilized in free reading.

---

[1]Joseph Gainsburg and Samuel Spector, Better Reading, (N.Y.: Globe Book Company, 1967.) pp. 4-139.

[2]Charles E. Merrill, New Reading Skilltext Series, (Columbus, Chio: Charles E. Merrill Books, Inc., 1961).

[3]Lillian A. Wilcox and Lydia Austill Thomas, Reader's Digest, (N.Y.: Reader's Digest Services, Inc., 1959).

CHAPTER IV

RESULTS

The Iowa Silent Reading tests were administered to the experimental and control group at the beginning, and at the end of the ten week period of training to provide measures which would be used to compare results achieved through the use of mechanical devices with those obtained throught the use of book-centered techniques. Previous studies have indicated that the Controlled Reader is meant to be used by competent readers who can read grade level material comfortably and efficiently, and who have indicated, by their good comprehension, that they have mastered the skill of careful and inclusive reading.

In this study, between the machine-centered approach and the book-centered approach, there was no significant difference found with students whose rate/comprehension scores were above the sixtieth percentile.

Students below the sixtieth percentile made greater gains through the use of the Controlled Reader than did control subjects.

Students, with intelligence quotients of 110 and above, who used the Controlled Reader, made no greater gains in rate/comprehension than students with similar mental abilities in the control groups.

Many students in the experimental group, with intelligence quotients between 110 and 90, who used the Controlled Reader, made outstanding progress.

A comparison of group means for the control and experimental groups appear in Table 1.

TABLE 1

MEAN SCORES OF READING RATE/COMPREHENSION

	Above 60th %ile		Below 60th %ile		IQ's 110 & above		IQ's Between 110-90	
	Pre	Post	Pre	Post	Pre	Post	Pre	Post
C.	72	78	45	49	67	74	44	44
E.	72	76	33	57	66	75	42	60

The results shown were taken from the Iowa Silent Reading Tests, and reveal that the control and experimental groups are very close in reading achievement (not more than two percentile spread) in all pre-test means except for the advantage shown by the control students below the sixtieth percentile (control 45-experimental 33.)

Post-test mean scores for the students, with intelligence quotients 110 and above, are 74 for the control group and 75 for the experimental group; scores for students above the sixtieth percentile are 78 for the control group and 75 for the experimental group. Students, whose previous post rate/comprehension scores are below the sixtieth percentile reveal only slight gain in the control group, and a very significant gain in the experimental group. (control group 45 - 49 and experimental group 33 - 57.) Similar findings were also revealed by students with intelligence quotients between

110 and 90. (control group no gain - experimental group 42 - 60.)

The number of individuals achieving various amounts of gain is shown in Table 2 and Table 3. The range of gain has been broken into five point segments, and the incidence of individuals for each has been reported.

TABLE 2

NUMBER OF INDIVIDUALS IN EXPERIMENTAL GROUP MAKING VARIOUS AMOUNTS OF GAIN IN READING ACHIEVEMENT DURING THE TEN-WEEK PERIOD

Average raw score gains	Number	Average raw score gains	Number
0-5	16	21-25	6
6-10	3	26-30	4
11-15	6	31-35	0
16-20	9	36-40	6
		Above	2

TABLE 3

NUMBER OF INDIVIDUALS IN CONTROL GROUP MAKING VARIOUS AMOUNTS OF GAIN IN READING ACHIEVEMENT DURING THE TEN-WEEK PERIOD

Average raw score gains	Number	Average raw score gains	Number
0-5	25	21-25	0
6-10	8	26-30	4
11-15	13	31-35	0
16-20	2	36-40	0
		Above	0

Approximately fifty per cent of the students in the experimental group gained between 0–15 raw scores compared to 0–5 raw scores in the control group. Other significant difference fell in the range between 21–40. Only four students were in this range of gain in the control group compared to eighteen in the experimental group.

But grouped data does not give a complete picture of the study; individual scores and patterns of growth need also be examined. Table 4 and Table 5 will show the scores for all subjects in the study.

TABLE 4

INDIVIDUAL INTELLIGENCE QUOTIENT AND READING ACHIEVEMENT SCORES FOR EXPERIMENTAL GROUP

IQ's	Pre-Rate/Comp.	Post-Rate Comp.
125	57	59
123	72	52
123	64	81
123	38	77
123	81	72
121	81	94
121	49	71
120	92	99
114	81	81
112	41	61
112	75	77
107	80	59
106	60	75
104	85	84
103	65	63
103	40	63
102	9	29
102	24	64
102	59	97
97	15	18
93	15	42
92	26	88
92	10	18
97	38	52
91	44	73
91	61	55

TABLE 5

INDIVIDUAL INTELLIGENCE QUOTIENT AND READING ACHIEVEMENT SCORES FOR CONTROL GROUP

IQ's	Pre-Rate Comp.	Post-Rate Comp.
140	62	73
127	61	88
126	62	92
122	75	73
122	81	94
121	49	59
119	61	73
119	89	83
119	57	71
118	41	42
116	87	84
115	75	70
114	91	81
111	52	67
111	63	59
110	62	61
107	55	69
107	30	35
103	40	47
103	49	68
102	43	21
101	46	45
99	58	54
97	51	62
94	30	18
93	34	20

CHAPTER V

SUMMARY

The study has provided the experimenter with a better insight and understanding of the use of the Controlled Reader in a class room of junior high students. Conclusions for each of the four purposes of the study follow:

Purpose one. To determine whether the Controlled Reader was as beneficial as other method for improving rate and comprehension scores for students who have rate/comprehension scores above the sixtieth percentile.

Conclusion. The findings show that the increase in the mean of reading achievement by the experimental group over the ten week period did not exceed that of the control group. This evidence leads us to believe that any good approach to improve rate/comprehension can be beneficial to the students who are already competent readers.

Purpose two. To determine whether the Controlled Reader is as beneficial as other methods for improving rate and comprehension scores for students who have rate/comprehension scores below the sixtieth percentile.

Conclusions. The findings show that this group of students can make outstanding gains through the use of the Controlled Reader. This evidence indicates to the experimenter that the child who is poor in both speed and comprehension can profit from rate/comprehension training. The experimenter believes speed is only of secondary

importance with these students and concentration on comprehension improvement should precede rate-training.

Purpose three. To determine whether students with above average intelligence would benefit as much or more from the use of the Controlled Reader than through the use of other methods.

Conclusion. Findings in this study indicate that the Controlled Reader is as beneficial as other methods or approaches used for rate/comprehension improvement for this group of students. Both control and experimental students made substantial gains.

Purpose four. To determine whether the Controlled Reader was as beneficial as other methods in rate/comprehension improvement for students who are of average and below in intelligence.

Conclusion. Findings indicated a marked gain for experimental group students using the Controlled Reader over the control group. The control group showed no improvement according to mean scores. However, three students in the control group had a minus score which would influence results.

II. LIMITATIONS

It is important to note here that the Controlled Reader Teacher's Guide recommends training five times a week for the slower reader. This schedule could not be followed because of the crowded schedule. (Spelling was a requirement in this developmental reading class.) Perhaps improvements could have been greater had training been carried on regularly.

The small number of participants in the study also fails to provide the experimenter with enough students to test the hypothesis at some rigorous level of confidence. However, the experimenter feels the use of the machines was under normal classroom conditions.

Other conditions which might have influenced over-all growth were interruptions such as unplanned lyceums and dismissals. There were only three such occasions during this study.

It is also impossible to attribute rate improvements to machines alone because of the possible Hawthorne effect created by the machines. Attempts were made to try to control this limitation.

III. EXPERIMENTERS REACTIONS AND RECOMMENDATIONS

The investigator feels that the Controlled Reader can be used successfully in the developmental classroom. For students, who are efficient in both rate and comprehension this device should be used with discretion. Even though students with intelligence quotients below 90 were not included in this study some incidental experimentation was done in this area. Only one of the six students increased their rate/comprehension score. For these students training in basic comprehension and word recognition skills probably would be of more value.

The Controlled Reader could be of more value used in smaller groups and individually. Some remedial students would also benefit from mechanical device training.

The writer acknowledges the fact that the use of any one

technique can be used to achieve the same goal. Prior to this study the investigator has used mechanical device training with other techniques in a yearly program. Results have been impressive.

BIBLIOGRAPHY

BIBLIOGRAPHY

A. PERIODICALS

Bottomly, Forbes. "An Experiment with the Controlled Reader," Journal of Educational Research, Volume 54, Number 7, March, 1961.

Boyd, Rae. "Rate of Comprehension in Reading Among Sixth Form Pupils in New Zealand," Reading Teacher. Newark, Delaware: December 1966. 241 pp.

Bridges, L. H. "Speed vs. Comprehension in Elementary Reading," Journal of Educational Psychology-Vol. 32, 1941. 314-20 pp.

Controlled Reading. Huntington, N.Y.: Educational Developmental Laboratories-P-351, 1968. 1-9 pp.

Cason, Eloise. "Mechanical Methods for Increasing the Speed of Reading," Contributions to Education, No. 878, N.Y. Teachers College, Columbia University: 1943.

Jones, L. Reginald and Earl Van Why. "Tachistoscopic Training in the Fourth and Fifth Grades," Journal of Developmental Reading. Newark, Delaware: Spring 1963. 177-85 pp.

Taylor, Stanford E. and Helen Frackenpahl, Controlled Reading. Huntington, N.Y.: Educational Developmental Laboratories, Inc., 1968. 111-116 pp.

Taylor, Stanford E. Speed Reading vs. Improved Reading Efficiency. Huntington, N.Y.: Educational Developmental Laboratories, Inc., 1962. 5-6 pp.

Taylor, Stanford E. "Reading Instrument Usage," The Reading Teacher, Newark, Delaware: May 1962. 453-54 pp.

B. BOOKS

Gainsburg, Joseph, and Samuel Spector. Better Reading. N.Y.: Globe Book Company, 1967. 4-139 pp.

Hafner, Lawrence E. Improving Reading in Secondary Schools. N.Y.: The Macmillan Company, 1967. 289-92, 296-99 pp.

Harris, Albert J. How to Increase Reading Ability. David McKay Company, Inc., 1961. 503-58 pp.

Merrill, Charles E. New Reading Skilltext Series. Columbus, Ohio: Charles E. Merrill Books, Inc., 1961.

Rosen, Carl L. "Mechanical Devices for Increasing Speed of Reading," Journal of Reading, Volume X, Number 8, May, 1967. 569-72 pp.

Smith, Henry P., Emerald V. Dechant. Psychology in Teaching Reading. Englewood Cliffs, N.J.: Prentice-Hall, Inc., 1961. 222-35 pp.

Smith, Nila Banton. Reading Instruction for Today's Children. Englewood Cliffs, N.J.: Prentice-Hall, Inc., 1963. 364-77 pp.

Strang, Ruth, and Dorothy Bracken. Making Better Readers. Boston: D.C. Heath Company, 1957. 120 p.

Wilcox, Lillian A., and Lydia Austill Thomas. Reader's Digest. N.Y.: Reader's Digest Services, Inc., 1959.

APPENDIX

FACT AND OPINION UNIT

LESSON I

Introduction. The daily newspaper presents a countless number of passabes which require the reader to differentiate between statements of fact and statements of opinion. Many misunderstandings are created because readers fail to make this distinction.

What is a fact? A fact can be proven true or untrue.

What is an opinion? An opinion is a matter of personal taste and cannot be said to be right or wrong.

Procedure. Demonstrate in class on the overhead projector.

LESSON II

Procedure. Display five advertisements on the chalkboard. Have the students list five facts and five opinions about two of them. Students list should be discussed in class.

The teacher must circulate the room as work is progressing.

LESSON III

Procedure. Display five advertisements on the chalkboard. Have the students list five facts and five opinions about two of them. Discussion of the results should follow this assignments.

Assignment. For the next lesson ask students to bring some short editorials.

*Designed for twenty minute lesson.

LESSON IV

Procedure. Preceding the lesson assignment the teacher puts editorials on the overhead projector and the teacher and students cross out all statements of opinion and read what is left.

Classroom assignment. Have students work together on the editorials brought to school, and cross out all statements of opinion. Discussion should include what is left after all statements of opinion are left out.

LESSON V

Classroom assignment. List several facts and several opinions about a friend. The teacher circulates the room as work is progressing.

LESSON VI

Classroom assignment. Ask the students to list arguments for and against something. Combine both lists into a paragraph. Caution them to keep all personal opinions, judgements, inferences and conclusions out of the paragraph.

Assignment. Bring a newspaper.

LESSON VII

Classroom assignment. Identify headlines which do not express opinions or contain biases. Students can work in groups after the discussion has taken place.

SUMMARY LESSON

Classroom assignment. Write an editorial. The subject of the editorial should be about facts and opinions. Then have the students draw one line through all opinions, and hand in.

THE VALUE OF THE CONTROLLED READER APPROACH IN JUNIOR HIGH SCHOOL FOR IMPROVING SPEED AND COMPREHENSION

by

MARILYN CHARLENE JENSEN

B. S., Emporia State Teachers College, 1962

AN ABSTRACT OF A MASTER'S REPORT

submitted in partial fulfillment of the

requirements for the degree

MASTER OF SCIENCE

College of Education

KANSAS STATE UNIVERSITY
Manhattan, Kansas

1969

ABSTRACT

The purpose of this report was to determine whether the Controlled Reader can be used as another teaching approach in developing comprehension and rate, and to compare it with other approaches.

The pupils involved were enrolled in grade seven at West Elementary School in Belleville, Kansas. From three classes of seventh-graders, two groups which meet in mid-morning were chosen to be included in the experimental and control groups. The remaining seventh grade group meets in the afternoon, and was not considered for the study. Both experimental and control groups were taught by the same instructor.

Twenty-six students in each class were selected to be in the experimental and control groups. Six students were eliminated to produce adequate ability matching.

For this experiment, students were grouped for instruction according to scores obtained from the Iowa Silent Reading Test, Form DM, Test I, which tests rate and comprehension.

The Otis-Lennon Mental Ability Test was used to determine ability mean scores.

Control-group design was used in this study to discover the differences between two groups with similar abilities. They were selected by flipping a coin. In order to make valid comparison between the experimental and control groups, the same tests were administered to the groups on the same day. The mean post-test scores of the experimental and control groups were compared.

In the experimental group, rate training was given to the slow

readers four days a week, and to the average and above readers three days a week, for a period of ten weeks.

Students were grouped in small groups on the bases of two factors; reading achievement level, and rate of reading with comprehension. Dividing the students into several small groups provided for the proper type of instruction. Slow readers, as well as the exceptionally gifted and fast readers, worked in groups of two or three.

The control group was given a variety of experiences to control for the Hawthorne effect.

The following conclusions were drawn from this study:

(1) Comprehension scores, for students who have rate/comprehension scores above the sixtieth percentile, did not exceed that of the control group.

(2) Through the use of the Controlled Reader, outstanding gains in comprehension scores were made by students who had rate/comprehension scores below the sixtieth percentile.

(3) For students with above average intelligence, the Controlled Reader is as beneficial as other methods or approaches used for rate/comprehension improvement.

(4) Students in the experimental group who are average and below in intelligence showed a marked gain over the control group, through the use of the Controlled Reader.

In summary of the evidence obtained, the investigator feels that the Controlled Reader can be used successfully in the developmental classroom. The writer acknowledges the fact that the use of any

one technique in isolation does not constitue a total reading improvement program, and that more than one technique can be used to achieve the same goal.