A COMPARISON OF TWO METHODS TO TEACH

REMEDIAL READING STUDENTS

A graduate project submitted in partial satisfaction of the requirements for the degree of Master of Arts in

Education

Secondary Reading

by

Helen Buske Wyers

May, 1975
The graduate project of Helen Buske Wyers is approved:

California State University, Northridge
May, 1975
DEDICATION

To my husband, Sampson Wyers, Jr., without whose love and patience this study would not have been started or completed.
<table>
<thead>
<tr>
<th>Chapter</th>
<th>Section</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>I</td>
<td>THE PROBLEM</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>Introduction</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>Background</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>Purpose of this Study</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Question to be Answered</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>Hypothesis</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>Importance of this Study</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>Statement of Problem Situation</td>
<td>6</td>
</tr>
<tr>
<td></td>
<td>Definitions of Terms</td>
<td>6</td>
</tr>
<tr>
<td></td>
<td>Limitations of the Study</td>
<td>8</td>
</tr>
<tr>
<td></td>
<td>Research Design</td>
<td>9</td>
</tr>
<tr>
<td></td>
<td>Outline of the Project</td>
<td>10</td>
</tr>
<tr>
<td>II</td>
<td>REVIEW OF RELATED LITERATURE</td>
<td>10</td>
</tr>
<tr>
<td></td>
<td>Historical Aspects of Teaching Reading</td>
<td>10</td>
</tr>
<tr>
<td></td>
<td>Historical and Current Aspects in Remedial Reading Instruction</td>
<td>12</td>
</tr>
<tr>
<td></td>
<td>Research Studies on the Developmental Reading Program and Similar Systems</td>
<td>14</td>
</tr>
<tr>
<td></td>
<td>Validity and Reliability of Criterion Referenced Testing</td>
<td>19</td>
</tr>
<tr>
<td></td>
<td>Summary of Literature Reviewed</td>
<td>23</td>
</tr>
<tr>
<td>III</td>
<td>METHODOLOGY</td>
<td>25</td>
</tr>
<tr>
<td></td>
<td>Description of Research Methodology</td>
<td>25</td>
</tr>
<tr>
<td></td>
<td>Research Design</td>
<td>26</td>
</tr>
<tr>
<td></td>
<td>Selection of Subjects</td>
<td>26</td>
</tr>
</tbody>
</table>
Instruments. .......................... 27
Classroom Procedure. ................. 30
Data Collection and Recording. ....... 34
Data Processing and Analysis ........... 35

IV FINDINGS ............................. 36

V SUMMARY, CONCLUSIONS AND
RECOMMENDATIONS. .................... 40
REFERENCES ............................. 43
# LIST OF TABLES

<table>
<thead>
<tr>
<th>Table</th>
<th>Description</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>DECODING BEHAVIORAL OBJECTIVES IN EACH STEP</td>
<td>32</td>
</tr>
<tr>
<td>2</td>
<td>VOCABULARY</td>
<td>37</td>
</tr>
<tr>
<td>3</td>
<td>COMPREHENSION</td>
<td>38</td>
</tr>
</tbody>
</table>
CHAPTER I
THE PROBLEM

Introduction

In 1973, the National Health Survey published "Literacy Among Youths 12-17 Years, United States; Prevalence of Illiteracy as Measured by the Brief Test of Literacy Among Youths by Selected Socioeconomic and Demographic Variables." The survey taken during 1966-1970 found 4.8% of the approximately 23 million noninstitutionalized youths 12-17 years old in the United States were illiterate. That is, the youths could not read at the beginning fourth grade level. Those are the kind of students who are programmed into remedial reading classes in the secondary schools. The purpose of such classes is to try to bring the student's reading level up to his grade level or to try to bring it up to the student's capabilities. Most secondary teachers of reading draw on their expertise to supply the remedial reading student with materials suited to his needs. According to Otto (1971) and Carrillo (1962) this type of eclectic remedial program will benefit the students. However, the teacher has to make the decision concerning decoding skills. The question concerning the teacher is: At the secondary
school level will it increase the student's reading ability by finding the decoding skills he did not master in grade school and reteach those skills, or will it increase the student's reading ability to have more exposure to the written language by using materials not concerned with decoding skills?

Background

The best approach to use in the teaching of reading has been a controversial issue for many years. There have been two divergent strains of thought concerning this issue, the phonic method which stresses sounds of letters or the word method which stresses learning words by sight. The Greek teachers of reading had the children memorize the names of the letters, then memorize all the syllables and, finally, they learned words (Mathews, 1966). Sounds were learned by syllable sound, not individual letter sounds. The biggest change from this method came in the latter part of the 19th century. Jacotot advocated the "whole" should be first and then broken into bits. Some teachers started teaching a whole word first and then broke the word into sound bits. Other teachers taught many words to the student by repetition and the sounds of letters became only incidental in the process of teaching reading. The debate between advocates of the phonic approach and the word approach continues today.
Most methods of teaching reading have been based on the assumption that teaching specific reading skills will enable the learner to decode words. Having mastered those skills, it is assumed the student will then be able to decipher the words, and meaning will be derived from the sound of the words. However, F. Smith (1973) argued with that belief. He maintained that if sound was produced in reading, it came only after the comprehension of meaning in reading. Smith stressed that rather than using sound to derive meaning, the reader used complex syntactic and semantic decisions. Goodman (1975) maintained that children learn the rules of the language (the sound-symbol relationship) on their own. She maintained that those rules are learned only after children see written symbols as having meaning and associate those symbols with oral language. If Goodman (1975) and F. Smith (1973) are correct in their assumptions, decoding skill work in school is not necessary. The student would benefit more from learning words by sight and from using the written language to gain meanings of new words along with gaining semantic and syntactical knowledge.

Purpose of This Study

The purpose of this study was to compare an eclectic approach with a decoding skill emphasis with an eclectic approach without a decoding skills emphasis in the teaching
of reading at the secondary level by the measurement of
the difference in the amount of gain score.

**Question to be Answered**

The question to be answered for this study was:
In the teaching of reading at the secondary level, does
the eclectic approach emphasizing decoding skills demon-
strate greater pupil progress than the eclectic approach
without decoding skills?

**Hypothesis**

The hypothesis of this study was: There is no sig-
nificant difference in the amount of gain score between
two groups of remedial reading students when one group
uses an eclectic approach emphasizing decoding skills
and the other group uses an eclectic approach without
decoding skills.

**Importance of This Study**

Teaching reading as a subject at the secondary level
has been emphasized more in the last few years. Separate
reading classes are usually established for those students
considered behind in their reading ability. The goal of
these classes is to bring the students' reading ability
up to their grade level or to try to bring the students'
reading ability up to their capability. Teachers assigned to teach the remedial reading classes may or may not have training in the teaching of reading at the secondary level. Trained or not, the teacher must decide which approach to use to reach the goal.

Many secondary reading teachers have found the eclectic approach is best for secondary students (Otto, 1971; Carrillo, 1962). The eclectic approach is no one method or system. The teacher has a variety of materials which use different approaches. Ideally, the teacher chooses which materials to use according to the students' needs. But even when using a variety of materials, the teacher must decide if there should be a decoding skill emphasis in the materials chosen.

If the teacher makes the decision to emphasize decoding skills, further decisions are necessary. At the secondary level, the teacher can assume students have had some exposure to decoding skill work at the elementary level. Therefore, should a teacher assume it is better to start every student from the beginning again, or should a diagnostic test be used to find which skills the students have mastered? There are diagnostic tests available which pinpoint competency or lack of competency of specific skills. However, one research study showed some of the diagnostic tests do not really pretest accurately (Winkley, 1970).
It would be helpful to teachers having to make decisions on how to teach reading at the secondary level if there were more research studies done at the secondary level. This study was made to help teachers make the necessary decisions. Two approaches to teaching reading at the secondary level were compared. Both approaches were eclectic; however, one emphasized decoding skills and the other one did not. The approach emphasizing decoding skills used the Developmental Reading Program Fundamental Stage: Advanced. This program has criterion reference pretests as the diagnostic tool to determine which decoding skills the students lack competency.

Statement of Problem Situation

In secondary schools which have remedial reading classes, the teacher has to make the decision whether or not decoding skills will help the students reach their grade level in reading or to reach their level of capability.

Definition of Terms

The following definitions are necessary in the understanding of this study.

Behavioral Objectives

Behavioral objectives are specific reading skills written in a pattern based on the author's assumption of
what sequence the student should learn them.

**Criterion Referenced Tests**

Criterion referenced tests are made by using questions dealing with a special reference. The test results pinpoint deficiencies or achievement in a specified area. In the field of reading, criterion referenced tests are used to determine if a student is competent in specific reading skills.

**Decoding Skills**

Those skills dealing with the sound of letters and letter combination sounds.

**Developmental**

Reading skills are set in a sequential arrangement so that some higher skills are dependent on the knowledge of lower skills. Also, some higher skills are more complicated than lower ones.

**Diagnosis and Prescription**

Diagnosis and Prescription are the means by which the teacher learns about the needs of the student; and, by interpreting the information, is able to determine the material needed and the most effective way to help the student.

**Eclectic Approach**

No one system is used by a teacher. A variety of materials are available for the teacher to select from. Selection is made after the teacher has determined
students' needs.

**Literacy Stage**

The Literacy Stage of reading is generally considered to be at the fourth grade level.

**Limitations of the Study**

The limitations of this study were:

1. The time period of this study was approximately eighteen weeks. Teaching materials of the Developmental Reading Program did not arrive when expected. However, all diagnostic tests had been given to the students of the decoding skill emphasis group before. Consequently, when materials did arrive the class was able to immediately start using the instructional materials.

2. The two classes used in this study contained twenty-two and twenty-three students. The numbers are large for remedial reading classes but small for a comparison study.

3. The validity of this study was limited because the researcher was also the teacher of the two classes used in the study.

4. The test results can not be generalized from one reading class to another.

5. The results of the comparison would have been more meaningful if a further breakdown had been made between the two classes, such as, I.Q., age, sex, etc.
Research Design

To test the hypothesis of this study two groups of equivalent students were established by using the Table of Random Digits. Group A received an eclectic approach of instruction with decoding skill emphasis and Group B received an eclectic approach of instruction without a decoding skill emphasis. A standardized test was used as a posttest. The posttest results were then compared by using the t Test of the difference in means.

Outline of the Project

Chapter I has dealt with the problem, its background, purpose, and its importance in the field of teaching reading at the secondary level. Chapter II dealt with a review of the related literature in the field. Chapter III was concerned about procedures related to the study: research design, selection of subjects, selection of instruments, data collection and research methodology. Chapter IV presented the data along with an analysis and interpretation of the data. Chapter V dealt with the summary, conclusions, and recommendations.
CHAPTER II
REVIEW OF RELATED LITERATURE

The chapter on related literature was divided into four sections: historical aspects of the teaching of reading, historical and current aspects in remedial reading instruction, research studies on the Developmental Reading Program and similar systems, and validity and reliability of criterion referenced testing.

Historical Aspects of Teaching Reading

Historically, the teaching of reading involving an alphabet began after the Greeks laboriously adopted and adapted the Phoenicians' alphabet (Mathews, 1966). Through tedious drills the Greek boys learned the names of the letters, then the syllable sounds, and, finally, words. In the Greek language the sounds were what are now considered "regular". That is, one symbol stood for one sound. As a consequence, spelling was not difficult, and once a student learned all the syllable sounds, reading was not difficult. The Greek alphabet was adopted by the Etruscans, and in turn was adopted by the Romans. The Greek names of the letters were not used however. The Romans did use the same method of teaching their sons to read. In the sixteenth and seventeenth centuries, the
teachers in England were still following that same procedure dating back to the Greeks. And reading was still thought of as an oral process as it was back in the Greek and Roman times. Following the American Revolution in the United States, the teaching procedure still remained basically the same; however, sounds of the letters were being taught to some extent before the teaching of syllable sounds (Durkin, 1962).

Valentine Ickelsamer in the 1500's in Germany, first taught reading by teaching the individual letter sounds rather than sounds in a syllable (Mathews, 1966). However, this method did not spread at that time. Jean Joseph Jacotot, in the early 1800's, was convinced that students learn a thing first in its total form or as a whole. He started with a whole book which the students memorized, and he gradually worked down to individual letter sounds. Using that basic idea, German teachers made the "whole" smaller; they started by teaching a whole word, and then they broke it into bits of sound. Horace Mann advocated this whole word approach, but it failed to make much headway in the United States at that time. Francis Parker's method of teaching in the latter part of the 1800's was the word method. He had students memorize 150 to 200 words first. Then sounds of the letters were taught by slow pronunciation of easy words. The word method did establish a beachhead in the United States by
1900, and for two decades the schools advocating the method increased.

In the 1920's there was a division in the philosophy of teaching reading. One group said children should be given carefully planned sequential practice in skills. The other group advocated activity programs for reading in which skills were incidental (Smith, 1966). By the 1940's there was an open resurgence of phonics (Durkin, 1962). One study which reinforced the advocacy of teaching phonics was the study done by Jean S. and Paul R. Hanna, it was published in 1959 (Mathews, 1966). The Hannas' "Spelling as a School Subject" showed that of the 3000 words which were reputed to make up ninety-eight percent of written communication, eighty percent of those were spelled alphabetically. That means those eighty percent contained one sound-one letter relationship in the spelling. The inconsistencies and the irregularities of the English language was one of the main arguments against using phonics to teach reading.

**Historical and Current Aspects in Remedial Reading Instruction**

Remedial reading had a phenomenal development in the 1910's and the 1920's. Around the year 1910 psychologists began to concern themselves with reading deficiency and in the 1920's personnel in the public schools joined in
the new movement to help children who were having difficulty in learning to read (Smith, 1966). Those children having difficulty in learning to read are probably receiving more help today than ever before. Many secondary schools have set up special programs for those students whose reading is not at a predetermined standard. The debate on beginning reading methods apply to remedial students. Will decoding skills improve their level of reading? Dechant in Reading Improvement in the Secondary School (1973) assumed that if a student was ever to become a mature reader, he must be adept in the use of the grapheme-phoneme correspondence to decode the written language. A similar assumption was made regarding a study by Towner and Dykstra (1974). Their study compared the ability to pronounce synthetic words of children who learned to read by methods emphasizing early, intensive phonic instruction with the ability of children who learned to read by methods utilizing delayed and less intensive phonics instruction. The study was with a sample of second, third, and fourth graders. They concluded that the ability to pronounce synthetic words increased with grade level and that early intensive phonic instruction equipped the child to become an independent reader at an early age. Most books written to help the teacher in the teaching of remedial reading include or emphasis decoding skills as the procedure to help students having
reading difficulties (Dechant, 1973; Bond and Tinker, 1967; Kottmeyer, 1959; and Ekwall, 1970).

Both Carrillo (1962) and Otto (1971) advocated an eclectic approach to the remedial teaching of reading. Both claim the lack of an universal cure for reading deficiency necessitated the flexibility of an eclectic approach. Otto defined the eclectic approach as "Eclectic, in my dictionary, means... not following any one system... but selecting and using what are considered the best elements of all systems" (Otto, 1971, p. 2). Both Carrillo and Otto stressed the need of well trained teachers who are familiar with a wide range of materials. However, choosing among many materials still did not answer the teacher's question of whether decoding skills should be emphasized in the remedial teaching of reading.

**Research on the Developmental Reading Program and Similar Systems**

The Developmental Reading Program, which was put together by the Reading Task Force of the Los Angeles City Schools, operated under the assumption that mastery of specific reading skills did result in a functionally literate student. The program was aimed toward individual need and competency in the specific skills. The format was diagnosis, prescription, correction and evaluation of the skills. Two evaluations of the program have been
made. An evaluation of the Developmental Reading Program Fundamental Stage: Advanced was prepared by the California Testing Bureau of McGraw-Hill's Department of Programs and Services for the Los Angeles City Unified School District (1973). Findings, conclusions, and recommendations were published in September, 1973. This study and evaluation covered a two-year period and used learners in grades kindergarten through fourth. Findings indicated that step progress was an effective measure of reading achievement at the elementary level. Standardized test scores for 3,333 grade one through grade three learners were examined, and results showed that seventy-one percent of 407 learners who had achieved their expected step level by the end of the year scored above national norms in reading. The expected step level gain had been set at six steps per year. The six step level gain had not been met by many learners because of the slow startup period and the newness of the program. Another finding was that the Developmental Reading Program step placement had a correlation of 0.75 to a standardized achievement test. The conclusion from the evaluation was that skill mastery did aid reading ability.

Another study was made to determine if the skills in Steps 25-30 of the Developmental Reading Program Fundamental Stage: Advanced met the needs of approximately 100 adult learners in various English classes (Communication
Skills Project, 1973). A questionnaire filled out by the teachers of the classes was used for the evaluation. According to teacher questionnaire answers, there was an average to high correlation between skill needs of the adults and the skills on Steps 25-30. Decoding was the goal area in which learners were most deficient. It was concluded that the acceptance of a diagnostic-prescriptive approach was high and that the teaching-learning situation was effective in the classroom.

A program similar to the Developmental Reading Program was the Wisconsin Design. The Wisconsin Design was also a skills centered approach to the teaching of reading (Otto and Askov, 1971). Skills were in six areas: word attack, comprehension, study skills, self-directed reading, interpretive reading, and creative reading. Behavioral objectives correlated with the criterion referenced tests indicated skill strengths and deficits. Resources included published materials and teacher directed activities were keyed to each skill. Unlike the Developmental Reading Program, the Wisconsin Design did not include instructional materials for the behavioral objectives. The teacher chose the appropriate materials.

Quilling (1971) did a comparative study using age/grade equivalents in 1969 and 1970 with the Word Attack section of the Wisconsin Design. In 1969, two schools,
grades one, two, and three were tested for reading achievement using standardized tests. The Wisconsin Design had been implemented from five months to one year and two months before the final testing of the similar age/grade groups in 1970. The primary purpose of the study was to determine if the specific program objectives were attained. The conclusion drawn was that pupils attained a reasonable number of objectives in a year's time. Another objective was to explore the effect of the program on general reading achievement. The conclusion was drawn that the Design had a salutary effect on reading achievement as measured by independent tests.

Fischbach (1971) investigated the relationships of reading skill mastery level to general reading achievement in the Wisconsin Design. The study was at six grade levels. An examination of the relationship between the scores on the Word Attack subtests and fair measures of general reading level was made. Conclusions were that the results generally provided support for the basic notion of the Wisconsin Design that general reading was related to the number of specific reading skills mastered. He also found there was a tendency for the relationship to be supported more strongly at the higher grade level.

In order to determine if an alternate method to standardized tests in monitoring instruction using be-
behavioral objectives was feasible, Buchanan (1971), using
the Wisconsin Design, had a school staff set performance
goals for their students. It was concluded that realistic
goals could be set by teachers using the I.Q. level of
the children.

Field testing on the Wisconsin Design was reported
by Rude at the International Reading Conference in
December, 1971 (Rude, 1971). Evaluation was on the Word
Attack component. A population from twenty-three ele-
mental schools experienced the program for six months
duration. Subjects were posttested by using the Wisconsin
Tests of Reading Skill Development Word Attack and three
standardized tests. T Tests and complex variations of
the t Tests were used to compare the results of those
tests to the results of the same tests given to all the
elementary students from the same schools the year before.
Findings indicated that subjects who had participated in
the program achieved significantly higher scores on the
standardized tests of reading, vocabulary, and compre-
hension and on the tests associated with the specific
program objectives.

The SWRL was another objective based reading program
(Resta, 1971). A field test was conducted using the
kindergarten program. Procedures were for the sequen-
tial activities of ten equal units to be introduced, for
a criterion exercise or test to be administered, and for practice exercises to be provided for those who failed to achieve mastery on the pretest. The subjects were 2100 children from twenty-six schools in five urban districts in three states. The purpose of the study was for evaluation of the effectiveness of the training, management procedure and the overall program effectiveness for future installations. The conclusions of the study were that the program was effective and that management procedures and the effectiveness of the training were adequate for the continued installation of the program.

Validity and Reliability of Criterion Referenced Testing

Criterion referenced tests were utilized as the diagnostic systems of the Developmental Reading Program, the Wisconsin Design, and the SWRL reading programs. The results of the criterion referenced pretests indicated which behavioral objectives the students had or had not mastered. Instruction was then based on those results. Criterion referenced testing was the backbone of the programs, and the effectiveness of the programs depended on the validity and reliability of the criterion referenced pretests within each program.

According to research, criterion referenced tests have advantages along with definite limitations. Block (1971) listed three advantages of those type tests. Only
the criterion referenced test can inform the teacher as to whether the child has learned necessary skills. Hambleton (1973) also felt that was one of the useful function of those tests. Second, according to Block, objectives, in terms of skills, provided adequate base for criterion referenced tests. Also, those tests pinpointed deficiencies which could be corrected before related learning and the student's attitude are impaired. Tyler (1970) felt the use of criterion referenced tests was especially important in the education of disadvantaged children since those tests provided questions representing what the children were actually being taught.

Ransom (1972) and Ebel (1971) agreed that criterion referenced tests did not tell teachers all they needed to know about the student's achievement or attitude concerning reading. Ebel felt they measured only a small fraction of important educational achievements, and they may suppress effective teaching because of their relationship with the specific objectives. Ransom viewed the tests regarding teacher time; she was concerned about the administration of the tests in the classroom and the teacher time to record the results. She wondered if the test results were actually being used by the teacher. Hambleton (1973) also stated time as one limitation of criterion referenced tests. With the time limitation in classrooms,
there had to be a choice between testing for many competencies with less precision or to test for a small number of competencies and obtain very precise information.

Hambleton warned against using traditional approaches to estimate reliability and validity on criterion referenced tests since the results will normally be restricted to either end of the achievement scales (depending if it is a pretest or posttest). One of Ransom's (1972) concerns was if items in a criterion referenced test really tested what it purports to measure. Hambleton (1973), Popham (1969), Livingston (Spring, 1972), and Fischback (1971) stated that items must have content validity. Each test item must reflect the criterion behavior. The reliability factor of criterion referenced tests has received more theoretical attention. Hambleton (1973) suggested using the Bayesian Estimation of Mastery Scores to obtain more reliable information before placing a student according to a criterion referenced test. This involved using the student's subscale score along with collateral information contained in the test results of other students. Otto and Askov (1971) in reporting tryouts with at least 100 children using the criterion referenced tests of the Wisconsin Design, stated that in general the Hoyt reliability coefficients for the tests ranged in the .70's or better. Livingston (Spring, 1972
and Summer, 1972) developed a reliability coefficient which was based on assumptions of classical test theory. It was based on deviations of scores from the fixed standard, the criterion score. However, Harris (1972) did not feel Livingston's reliability coefficient gave a more dependable determination. Shavelson (1972) said classical test theory can be applicable to subscales, but for more reliable information he suggested two stage sequential testing when a student's score was close to the criterion score. Popham (1969) considered the correlation of test items important for reliability. That is, there should be high interitem correlation and there should be high test-retest correlation. Popham felt analysis of negatively discriminating items was necessary, but that there was no problem concerning the positive discriminating items in the criterion referenced tests.

Ebel's (1971) argument on the limitations of criterion referenced tests went beyond the testing factor. He was questioning the value of teaching to specific skills. McCarthy (1971) had the opposite opinion. He felt teachers needed to be specific in teaching and that this would prevent reading difficulties. Sciara (1972) saw great value in the use of criterion referenced tests in reading and arithmetic for the migrant workers' children. A teacher could efficiently assess those
Summary of Literature Reviewed

This chapter dealt with the literature related to the historical aspects of the teaching of reading, historical and current aspects in remedial reading instructions, research studies on the Developmental Reading Program and similar systems, and validity and reliability of criterion referenced testing. The historical aspects of teaching reading briefly reviewed the teaching of reading methods since the Greeks established their alphabet. The method of the Greeks remained basically the same accepted way for centuries. The word method gained popularity in the early part of this century. Since that time there has been the debate of what should come first in the teaching of reading, words or the sounds of the letters. A similar question applied to the correction of reading difficulties. Even though a teacher uses an eclectic approach, the question remains, should decoding skills be emphasized in remediation?

The Developmental Reading Program had two field study evaluations, but no comparison studies could be found. The Wisconsin Design did have comparison studies. Both programs' studies had conclusions supporting the assumption the programs were based on; that is, that the
mastery of skills did improve the reading achievement of the student.

Concerning criterion referenced tests, sources indicated a limitation; that is, they are designed to find if a student had mastered a specific skill, and that no other interpretations should be made from the results. Reliability seemed to pose a question for many writers. There seemed to be a consensus among them that there should be something else to consider when questioning reliability; such as, intertest correlation, test-retest correlation, content validity, and analysis of any negatively discriminating items.
CHAPTER III
METHODOLOGY

The chapter on methodology consists of seven sections. They are the following: (1) description of research methodology, (2) research design, (3) selection of subjects, (4) instrumentation, (5) classroom procedures, (6) data collection and recording, and (7) data processing and analysis.

Description of Research Methodology

The research methodology was a comparative study. The comparative study involved two seventh grade remedial reading classes. One class, Group A, was given a variety of materials to use which emphasized decoding skills. The other class, Group B, used a variety of materials without decoding skills emphasis. Group A worked with the Developmental Reading Program Fundamental Stage: Advanced, which emphasized decoding skills, for approximately 100 minutes a week. During that 100 minutes, Group B worked on a variety of materials that contained no decoding skills.

The groups were considered equivalent groups because of the method of selection of subjects. The determination was made for the students to be placed in remedial
reading classes from the results of the Developmental Reading Program Fundamental Stage: Advanced Placement Test. The Table of Random Digits was used to divide the subjects into two groups. The vocabulary and comprehension sections of the Gates-MacGinitie Reading Tests, Survey D, Form 2, was used as the posttest. The results of the scores of the two groups were compared to find the difference in means.

Research Design

Group A and Group B were considered equivalent groups because of the method of selection and the method of placement. Group A received an eclectic approach with a decoding skill emphasis and Group B received an eclectic approach of instruction without a decoding skill emphasis. A standardized test was used as a posttest. The posttest results were then compared by using the t Test of the difference in means.

Selection of Subjects

The Placement Test of the Developmental Reading Program Fundamental Stage: Advanced was given to the feeder schools of Millikan Junior High School in the Spring of 1973. A total of 415 preseventh graders were tested. The results of the test were reported in the
form of a computer printout. The printout listed the score of each student with a breakdown for each step cluster. The step cluster scores were used to determine at which step the students would begin the pretests for determination of competency on specific behavioral objectives. Forty-five students' scores placed them at starting levels at either step thirteen or step sixteen. Their scores indicated the lack of competency of some of the lower basic reading skills. These forty-five were then divided into two classes by using the Table of Random Digits. The students were programmed into the two classes according to that designation in September, 1973. One class was selected by a flip of a coin as Group A which was to receive the decoding skills emphasis, and the other class was considered Group B, which did not receive the decoding skill emphasis.

Instruments

This study used the Placement Test of the Developmental Reading Program Fundamental Stage: Advanced as the instrument for selection of subjects. The Table of Random Digits was used as the instrument to divide the subjects into two equivalent groups. The Gates-MacGinitie Reading Tests results, vocabulary and comprehension sections, were used to determine and compare pupil progress.
The Placement Test of the Developmental Reading Program Fundamental Stage: Advanced was a criterion referenced test. The test questions of the Placement Test correlate with the test questions of the step pretests. The step pretests questions correlate with the behavioral objectives on each step.

Table of Random Digits

The Table of Random Digits used was published by The Rand Corporation in 1955. It was used in this study to randomly place students in two classes. Originally the random digits table was produced by rerandomization of a basic table generated by an electronic roulette wheel. The machine was a thirty-two place roulette wheel, which had to have several modifications before production of satisfactory numbers was achieved. The table had three tests for statistically significant biases, the frequency, odd-even, and serial. Tests showed deviations as very small.

The Table of Random Digits was used according to the instructions preceding the table. The book is opened to an unselected page where a starting number is blindly chosen. From that point every seventh number was used to determine the placement of each student.
Gates-MacGinitie Reading Tests, Survey D, Form 2

The Gates-MacGinitie Reading Tests, Survey D, Form 2 was one of a series of tests designed to measure group and individual reading achievement from kindergarten through grade twelve (Gates and MacGinitie, 1965). Survey D was intended for use in grades four, five, and six. Nevertheless, it was chosen to test the seventh grade remedial reading students because the range of the vocabulary section tested from 2.0 grade level to 12.0 grade level and the comprehension section tested from 2.1 grade level to 11.9 grade level.

There were three sections of the Gates-MacGinitie Reading Tests, Survey D, Form 2, Speed and Accuracy Vocabulary, and Comprehension. The Speed and Accuracy section was not used. The Vocabulary Test contained fifty items. Each item had a test word and the pupil had to choose one of five other words which would mean most nearly the same. The beginning test items were composed of easier and more common words than those following. The students were allowed fifteen minutes to complete the Vocabulary Test. The Comprehension Test contained fifty-two items. The time allowance for completion was twenty-five minutes. The test construction was twenty-one complete passages with fifty-two blanks. The student chose from five words to fill each blank to make the
passage meaningful. The passages became progressively more difficult.

The standardization of the Survey D of the Gates-MacGinitie Reading Tests took place in 1964-1965. The norms were developed by administering the tests to a nationwide sample of approximately 40,000 students in thirty-seven selected communities. Selections were considered to be representative on the basis of size, geographical location, educational level, and family income. Testing was carried out in one or more schools, judged by the school officials to be representative of the community as a whole. The Survey D was normed at the fourth, fifth, and sixth grade levels. Each student who participated in the standardization took different forms of the test in October, 1964 and in April of 1965. By testing twice during the year, the actual gain during the year could be used as a basis for norms.

Classroom Procedure

Class periods were fifty-two minutes in length of time each day. Students in both classes, Group A and Group B, read silently from a book of their choice the beginning of each period for approximately twenty to twenty-five minutes each day. Both classes had the same vocabulary and spelling words each week. Discussions
of the words followed the same pattern. When Group A worked with materials emphasizing decoding skills, Group B worked with materials containing no decoding skills. The time the classes had different instructional materials was approximately 100 minutes a week.

The Developmental Reading Program Fundamental Stage: Advanced was selected as the program to use when Group A worked on decoding skills. The Developmental Reading Program was based on three assumptions about students learning to read and about the remedial reading students: (1) Competency in specific reading skills will make the student a better reader; (2) Specific reading skills are best learned within a developmental framework; (3) The remedial student past the third grade will improve his reading ability by the use of diagnosis and the subsequent teaching of those skills he had not mastered in the lower grades.

The specific reading skills in the Fundamental Stage: Advanced were divided into four categories in the system; decoding, vocabulary, comprehension, and location and study skills. The four type skills were in a sequential framework in Steps 7 through 30. The Developmental Reading Program was a diagnostic, prescriptive method. It contained a placement test to determine appropriate learner entry-level, criterion-referenced pretests based on behavioral objectives to diagnose learner needs,
individual student inventory cards to record pretest scores, workbooks and other teaching aids used to teach to specific needs, and posttests to determine if the behavioral objectives had been achieved.

Decoding skills were in each step of the Developmental Reading Program Fundamental Stage: Advanced. Decoding skills were the first few behavioral objectives in Steps 7 through 30. Table I illustrates the breakdown of each step.

**TABLE I**

**DECODING BEHAVIORAL OBJECTIVES IN EACH STEP**

<table>
<thead>
<tr>
<th>Step Number</th>
<th>Number of Decoding Behavioral Objectives</th>
<th>Total Number of Behavioral Objectives</th>
</tr>
</thead>
<tbody>
<tr>
<td>7</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>8</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>9</td>
<td>4</td>
<td>6</td>
</tr>
<tr>
<td>10</td>
<td>3</td>
<td>6</td>
</tr>
<tr>
<td>11</td>
<td>4</td>
<td>6</td>
</tr>
<tr>
<td>12</td>
<td>2</td>
<td>7</td>
</tr>
<tr>
<td>13</td>
<td>4</td>
<td>10</td>
</tr>
<tr>
<td>14</td>
<td>4</td>
<td>10</td>
</tr>
<tr>
<td>15</td>
<td>3</td>
<td>10</td>
</tr>
<tr>
<td>16</td>
<td>5</td>
<td>10</td>
</tr>
<tr>
<td>17</td>
<td>3</td>
<td>11</td>
</tr>
<tr>
<td>18</td>
<td>3</td>
<td>11</td>
</tr>
<tr>
<td>19</td>
<td>5</td>
<td>10</td>
</tr>
<tr>
<td>20</td>
<td>5</td>
<td>12</td>
</tr>
<tr>
<td>21</td>
<td>4</td>
<td>12</td>
</tr>
<tr>
<td>22</td>
<td>5</td>
<td>11</td>
</tr>
<tr>
<td>23</td>
<td>5</td>
<td>11</td>
</tr>
<tr>
<td>24</td>
<td>3</td>
<td>9</td>
</tr>
<tr>
<td>25</td>
<td>2</td>
<td>9</td>
</tr>
<tr>
<td>26</td>
<td>3</td>
<td>9</td>
</tr>
<tr>
<td>27</td>
<td>2</td>
<td>9</td>
</tr>
<tr>
<td>28</td>
<td>2</td>
<td>11</td>
</tr>
<tr>
<td>29</td>
<td>2</td>
<td>11</td>
</tr>
<tr>
<td>30</td>
<td>3</td>
<td>12</td>
</tr>
</tbody>
</table>
The Developmental Reading Program was devised by the Reading Task Force set up by the Los Angeles City Schools. It was originally started in January of 1970, and in the Summer of 1970 the Board of Education allocated funds to implement the program. It was seen as the most comprehensive system devised since it was to include materials for preschool children to the adult school level; also, separate special materials for the Mexican-American learners and special materials for the Black learner were developed.

Students in Group A had the pretests necessary as indicated by the Placement Test in November of 1973. Teaching materials of the Developmental Reading Program Fundamental Stage: Advanced were not delivered to the school as scheduled. As soon as possible after the instructional materials were delivered, Group A started using it. This was approximately December 1, 1973.

Group B worked with materials containing no decoding skills. Activities consisted of oral reading, the Junior Reading for Understanding kit, and audio-visual materials. The Junior Reading for Understanding kit (RFU) was published by the Science Research Associates, Inc. The Junior RFU kit started at 2.8 grade equivalent material to and including college level material. There were 400 lesson cards with numbers one through 100.
Each number had four lesson cards differentiated through four different symbols. The lessons became more difficult as the numbers became higher. The RFU kit concentrated on comprehension skills with no decoding skills. The four comprehension skills emphasized were reasoning, inference, interpretation, or meaning.

Audio-visual materials consisted of using the controlled reader and the controlled reader exercises which had stories with vocabulary and comprehension skill work. Tachist-O-Filmstrip materials were used to hasten the students' visual image intake. Acoustifone Reading Achievement Program materials, which had sets of cassettes and filmstrips, were also used; these sets contained story with vocabulary and comprehension skill work.

On April 29, 1974, both classes were given the Survey D, Form 2 of the Gates-MacGinitie Reading Test's comprehension and vocabulary sections.

Data Collection and Recording

The data that was collected and recorded was the criteria for establishing the equivalent groups and the standardized reading test scores.

A list was made of the forty-five students to determine in which class they were to be placed by the
use of the Table of Random Digits. After the posttest, using the Survey D, Form 2 of the Gates-MacGinitie Reading Tests, a chart was made for each class showing the scores of each student. The scores were the grade level score of the vocabulary and comprehension sections of the test.

Data Processing and Analysis

The grade level scores of the vocabulary and comprehension sections of the Gates-MacGinitie Reading Tests were used as the comparison data in the statistical analysis. The statistical analysis utilized in this study was made by using the t Test of the differences in the means.
CHAPTER IV

FINDINGS

This chapter dealt with the findings of the study; therefore, it was appropriate to repeat the question to be answered and the hypothesis. The question was: In the teaching of reading at the secondary level, does the eclectic approach emphasizing the decoding skills demonstrate greater pupil progress than the eclectic approach without decoding skills? The hypothesis stated: There is no significant difference in the amount of gain score between two groups of remedial reading students when one group uses an eclectic approach emphasizing decoding skills and the other group uses an eclectic approach without decoding skills.

To determine the findings, a statistical analysis was made by using data from the Comprehension and Vocabulary Tests of the Gates-MacGinitie Reading Tests Survey D, Form 2. These tests were given as posttests for comparison data. The data consisted of grade level scores for each student in both Group A and Group B. The Gates-MacGinitie Reading Tests Survey D, Form 2 was a standardized test normed on grades four through six. It tested speed and accuracy, vocabulary and comprehension. However, the speed and accuracy section was
not used with the remedial reading groups. The vocabulary section of the Gates-MacGinitie Reading Tests was based on determination of synonyms, and the comprehension section measured the use of contextual meaning. Raw figures of the scores of the students were converted to grade level scores by using the manual of the test. The grade level scores were used as the statistical data computed by using the t Test of the differences in the means.

Table 2 illustrates the statistical analysis of the results of the Gates-MacGinitie Reading Test, Survey D, Form 2, Vocabulary Test.

**TABLE 2**

<table>
<thead>
<tr>
<th></th>
<th>( \bar{X} )</th>
<th>S.D.</th>
<th>S.E.</th>
<th>N</th>
<th>t</th>
</tr>
</thead>
<tbody>
<tr>
<td>Group B</td>
<td>6.07</td>
<td>1.95</td>
<td>.46</td>
<td>18</td>
<td>-.55 (n.s.)</td>
</tr>
<tr>
<td>Group A</td>
<td>6.44</td>
<td>2.00</td>
<td>.49</td>
<td>17</td>
<td></td>
</tr>
</tbody>
</table>

There was no significant difference in vocabulary between Group A and Group B as measured by the Gates-MacGinitie Reading Tests, Survey D, Form 2.
Table 3 illustrates the statistical analysis of the results of the Gates-MacGinitie Reading Test, Survey D, Form 2, Comprehension Test.

TABLE 3

<table>
<thead>
<tr>
<th></th>
<th>$\bar{X}$</th>
<th>S.D.</th>
<th>S.E.</th>
<th>N</th>
<th>t</th>
</tr>
</thead>
<tbody>
<tr>
<td>Group B</td>
<td>6.62</td>
<td>2.75</td>
<td>.65</td>
<td>18</td>
<td></td>
</tr>
<tr>
<td>Group A</td>
<td>6.32</td>
<td>2.46</td>
<td>.60</td>
<td>17</td>
<td>.34</td>
</tr>
</tbody>
</table>

There was no significant difference in comprehension between Group A and Group B as measured by the Gates-MacGinitie Reading Tests, Survey D, Form 2.

Discussion

Although the results of the t Test showed no significant difference between the two methods studied, there were some interesting observations. One concerned the difference of mean scores in Tables 2 and 3. Group A, which received the decoding skills emphasis approach, had a higher mean in the Vocabulary Test results. Table 2 illustrated the mean difference between the two groups was .37. Group B, which received an eclectic approach without decoding skills, had a higher mean in Comprehens-
sion Test results. Table 3 illustrated the mean difference between the two groups was .30.

The students' reactions in Group A to the Developmental Reading Program should be noted. Students did not object to the pretests since it meant they did not have to repeat skill work in which they had already gained competency. Most of the students had a sense of accomplishment when advancing into a higher step. Once the student started advancing, it seemed to motivate him to progress into higher steps. For remedial students in secondary school with poor self concepts in school achievement, this type of sequential program seemed to encourage some students by giving them a sense of achievement. Another aspect of the program was that it gave the students a sense of independence. They were able to determine which behavioral objectives they needed to work on and what learning materials to use in their studies. If the teaching of decoding skills is taught in a remedial reading class, the Developmental Reading Program Fundamental Stage: Advanced did seem to meet the students' individual needs.
CHAPTER V
SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS

The final chapter of this study dealt with a summary of what was accomplished, an analysis of the findings, and a summary of the question answered. The chapter also contained conclusions drawn from the findings and recommendations for additional research.

Summary

What Was Accomplished

The purpose of this study was to compare an eclectic approach with a decoding skill emphasis with an eclectic approach without a decoding skill emphasis in the teaching of reading at the secondary level by the measurement of the difference in the amount of gain score. Two classes of seventh grade remedial reading students were selected to use as subjects in the comparison study. The subjects gain scores were compared by using posttest results. The statistical analysis method was the t Test of the difference in means.

Analysis of the Findings

The data used in the statistical analysis was obtained through posttesting both Group A and Group B. The Gates-MacGinitie Reading Tests, Survey D, Form 2 Vocabulary Test and Comprehension Test were used as
posttests. Raw scores were converted to grade level scores, and the grade level scores were used as the comparison data. Vocabulary and Comprehension tests scores were computed separately by using the t Test of the difference in means. The results of the t Test on both Vocabulary and Comprehension tests showed no significant difference in gains between Group A and Group B.

Question Answered
The question to be answered for this study was: In the teaching of reading at the secondary level, does the eclectic approach emphasizing decoding skills demonstrate greater pupil progress than the eclectic approach without decoding skills? The eclectic approach emphasizing decoding skills did not demonstrate greater pupil progress than the eclectic approach without decoding skills. There was no significant difference between the two groups in the amount of gain.

Conclusion
The findings of this study indicated that there was no significant difference in the amount of reading gain when using an eclectic approach emphasizing decoding skills than when using an eclectic approach without decoding skills.

Recommendations
The following recommendations are considerations
for further study:

1. It is recommended that a future study compare a decoding skills approach that is less structured with a diagnostic, prescriptive, structured approach with remedial reading students.

2. For future studies similar to this study, it is recommended that there be a breakdown in data such as: high I.Q. versus low I.Q., boys versus girls, social economic status or personality variables.
REFERENCES


Goodman, Y. Written language acquisition: Does it begin in school? Presented at the Language Arts Conference sponsored by the Los Angeles County Superintendent of Schools, Pasadena, March 6, 1975.


Literacy among youth 12-17 years, United States; Prevalence of illiteracy as measured by the Brief Test of Literacy among youths by selected socio-economic and demographic variables. Vital and health statistics data from the National Health Survey, Series 11, #131, Dec., 1973.


Livingston, S. A. Reply to Shavelson, Block and Ravitch's criterion-referenced testing: Comments on reliability. Journal of Educational Measurement, 1972, 9, 139-140.


