

A MODIFIED READING RECOVERY PROGRAM CAN BE
SUCCESSFUL IN A SECOND GRADE
TITLE I READING PROGRAM

By

DELANA A. MCMANUS

Bachelor of Science
Northeastern State University
Tahlequah, Oklahoma
1993

Master of Science
Oklahoma State University
Stillwater, Oklahoma
1996

Submitted to the Faculty of the
Graduate College of the
Oklahoma State University
in partial fulfillment of
the requirements for
the Degree of
DOCTOR OF EDUCATION
July, 1999

COPYRIGHT

By

Delana Ann McManus

July 30, 1999

A MODIFIED READING RECOVERY PROGRAM CAN
BE SUCCESSFUL IN A SECOND GRADE
TITLE I READING PROGRAM

Thesis Approved:

Thesis Adviser

R. Malatena Jr.

wen-song

Margaret Scott

Jane Hilleck

Wayne B. Powell
Dean of Graduate College

ACKNOWLEDGEMENTS

I truly wondered many times during this process if I would complete this abundance of work. This dissertation has engulfed my life for the past few years. It has always been the endless lingering of thoughts and words that have been hovering in the back of my mind. It has been such an intense process and I have learned so much not only about the field of reading, but the entire process of what it entails to write a dissertation. As I look back, it has been a wonderful learning experience. This work could not have been completed without the encouragement, support, and time of professors, family and friends. The ongoing support is what helped me to make this complete.

I would like to thank Dr. Malatesha Joshi for all of his support during this process and his optimism with me when frustration and disillusionment set in. I appreciate his professionalism and courtesy during all of my phone calls and taking the time to answer all of my questions regardless of how small they were. I have learned so much in the area of diagnostics and phonological awareness. However, I know there is still much more that I have yet to learn. He is truly interested in the field of reading research and to better help serve those children who struggle with reading.

I would also like to thank Dr. Wen-Song Hwu. He has been involved in my education for the past four years. He was a delight to have as my advisor and he always made me feel that everything would work out and I would graduate. He has always been

very supportive of my research papers and when I took comprehensive exams. He is good with compliments. I appreciate all your guidance and your sense of humor. He is an extremely intelligent man and a very hard worker.

I would also like to thank Dr. Halleck and Dr. Scott for serving as committee members. I sincerely appreciate the time they have spent in meetings. I am also grateful for the time they have taken to read my proposal and dissertation. Thanks for all your valuable time.

I would like to thank Dr. William Warde for the use of his computer and the statistical analysis. I am grateful for all his help in producing the data. He was so very friendly to talk with and obviously is wonderful with statistics.

Dr. Dale Johnson of The University of Tulsa was so very helpful with the statistical analysis of my test scores. He was so courteous to offer his valuable time and knowledge. I appreciate all of his time that he spent helping me to better understand statistics and all of the data that accompanied it. He is truly a generous man who cares about his students.

I appreciate my husband, Sean, who has been at my side throughout this process. I have been in college the entire time we have known each other, before and after marriage. It has been a part of our lives. He has offered so much support and encouragement. He can always make me laugh. He has made many trips to Stillwater with me, gone on errands, listened to me complain and offered many kind and thoughtful words. Many of our plans have revolved around classes, deadlines, exams and meetings. I am looking forward to actually putting our marriage first and not having to revolve around anything else. I hope he is as proud of me as I am of him.

I would like to extend special thanks to all of my family. My mom and dad have been so supportive and always offered so much encouragement. I have had so many pep talks and words of wisdom. You have always been there and I will always be grateful. I do not think I could have completed this without you. My mom has helped me so much in the area of advice, thoughts, and helping me with forms and errands. My dad has made so many trips to Stillwater with me that he probably misses going. I appreciate all of your love and encouragement. I would also like to thank my brothers Don and David and my sisters-in-law Donna and Peggy who have been very supportive. All of you have been so very positive. You are probably ecstatic that I finally made it. And to answer your question, YES! I am finally out of school!

There is one more person who has helped me. His name is Dr. C. Warren McKinney. He was my advisor when I began graduate school. He was such a wonderful man. He is the reason I began working on the Doctorate. It was he who initiated conversation about it and made me feel that I could accomplish it. He had such confidence and a great rapport with everyone. If it weren't for him, I probably never would have begun this adventure. I had never met someone who had read so many books! He was a true inspiration and I will always be grateful. He will always be remembered.

Finally, I would like to thank my colleagues for their support and encouragement. They are a wonderful group of people to work with and excellent teachers. I would also like to thank all of the students who helped with this project. I adore all of you and I love teaching. All of you are the reason why I am a teacher. You make the difference.

TABLE OF CONTENTS

Chapter	Page
I. INTRODUCTION.....	1
Problem Statement.....	4
Purpose.....	6
Objectives.....	6
Strategies.....	7
Group Activities Using Books.....	7
Phonological Awareness Activities.....	8
Writing.....	8
Age Levels.....	8
Definition of Terms.....	9
Theoretical Background.....	20
Importance of Phonological Awareness.....	21
Importance of Linguistic Abilities.....	22
Hypotheses.....	23
Assumptions.....	24
Limitations of the Study.....	24
Organization of the Study.....	25
II. REVIEW OF RELATED LITERATURE.....	26
Reading Recovery	
Background Information.....	27
Reading Recovery Compared with Other Reading Programs.....	36
Tutoring.....	40
Limitations of Reading Recovery.....	42
Increasing the Effectiveness of Reading Instruction.....	45
Phonological Awareness.....	49
What is Phonological Awareness?.....	49
Components of Phonological Awareness.....	50
Phonological Awareness and the Correlation to Reading.....	52
Phonological Awareness in Other Countries.....	58
Summary.....	61

Chapter	Page
III. METHODS AND PROCEDURES	63
Introduction	63
Subjects	64
Measures.....	64
Content and Function Words	65
Nonwords	66
Research Design.....	67
Procedures	67
Data Analysis	68
Methodological Assumptions	68
Limitations of the Study	69
Research Hypotheses	70
IV. RESULTS	71
Introduction	71
Data Analysis	72
Results.....	73
V. SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS	91
Summary.....	91
Conclusions.....	95
Recommendations for Further Research	97
Implications of Study	98
REFERENCES.....	100
APPENDIX A – PARENTAL CONSENT FORM.....	104
APPENDIX B – IRB FORM	106

LIST OF TABLES

Table	Page
1. Age and Gender Information.....	72
2. Correlated T-Test for the Control Group	73
3. Correlated T-Tests for the Treatment Group	77
4. Analysis of Variance Controlled By Pre-Test Scores	79
5. Reading Time Function Words (<i>in sec.</i>)	80
6. Function Word Errors.....	81
7. Function Words Score of Speed.....	82
8. Function Words Reading Score.....	83
9. Reading Time Content Words (<i>in sec.</i>).....	84
10. Content Word Errors	84
11. Content Words Score of Speed	85
12. Content Words Reading Score	86
13. Non Words Reading Time (<i>in sec.</i>)	86
14. Non Word Errors.....	87
15. Non Words Score of Speed.....	88
16. Non Words Reading Score.....	88
17. Comparison of Groups	89

CHAPTER I

INTRODUCTION

“The earlier adults start to read to youngsters, the greater the benefits. The early childhood years are of the greatest significance in children learning to read literature. Even before babies can talk, they enjoy looking at books and being read to. They are able to understand some of what is read to them, just as they are able to understand some of what is said to them, months before they say their first word” (Fields, 1989, p. 84). Children begin their relationship with books as soon as a parent begins reading to them. They develop attitudes, interests, and feelings about reading that stay with them throughout their lives. These feelings can either be enhanced or discouraged. Parents have a responsibility and duty to encourage their children to read. Parenting and reading begin in the home. When children are introduced to books, they need to be lured by the excitement of the story. We want them to know that books are very exciting and that reading is a very pleasurable experience. Young children need stories that are entertaining and full of excitement. Stories that will captivate and mesmerize them. Children also need the one-on-one time with an adult. This involves the child sitting on a lap and enjoying the closeness of an adult’s voice and the adult putting all the attention and focus on the child and the book.

Reading is the core of our lives. It allows us to function in a technological world that has such great expectations for a society that is so fast paced. We are driven by jobs

and the need to be successful. Reading allows us to read street signs, balance our checkbooks, surf the Internet, read magazines, fill out job applications, check the stock market, choose a television show, read a menu, read a travel brochure, and read books.

Reading can be stressful for students as well as adults who experience difficulty. Reading sets the goals for success for all people. It begins in early childhood and continues throughout their lives. Reading affects the success or failure in school, then progresses on to jobs. Barr and Shanahan (1995) found:

Children who have difficulty learning to read do less well in other subject areas, have lower self-esteem, pose greater discipline problems in school, and are less likely to complete a high school education. For adults, limited reading ability is correlated with unemployment, crime, lack of civic awareness and involvement, poor health maintenance for self and family, and other social problems (p. 958).

Correcting reading difficulty in the early years can help to eliminate many problems children will have in all their subjects. Reading is the main component in all subject areas.

Emergent readers who are on their way to becoming independent readers are the ones who may need intervention and support. These are the children who may become discouraged and lack enthusiasm with reading. Without intervention, this can progress throughout the early grades of elementary school and push the child back into a realm of dissatisfaction and frustration. Literacy consists of constructing knowledge and not setting rules that govern the reader. People read for meaning and understanding, not to have their sentences monitored and corrected. People do have to learn certain rules for reading but it should not be an experience that is uncomfortable and frustrating.

Children who are successful in reading have many opportunities throughout their lives. Successful readers become more interested in reading and therefore learn more information. Views about life, culture, jobs, music, arts, business, religion, health, and philosophy are enhanced. Successful readers are more likely to be the ones who become professionals. Many jobs, such as teaching, medicine, law, and many political jobs, require extensive reading. The more a child reads, the better he or she becomes at writing. The more a child writes, the better he or she becomes at reading. The more a child reads, the more the child knows when he or she has to make a choice or decision. Fields (1995) found:

An emergent reader has two parts of their curriculum that equals a whole. Half of the process is reading, the other half is writing. The more people read, the more they know about writing; and the more people write, the more they know about reading (p. 140).

Children explore their experiences and thoughts through writing. They are able to make hypotheses and test them. They develop their own knowledge about writing and try their experiences. Writing helps children develop an understanding that there is a relationship between letters and sounds. Children know the difference between “real world” writing and writing assignments in school. It should make sense to have children write for the real world. This gives it meaning and a purpose. Children can become authors at a very early age. This is a strong foundation to build on with emergent writers.

Problem Statement

Some of the studies regarding the Reading Recovery Program are by Marie Clay (1993), William Tunmer (1993), and Sandra Iverson (1993). The purpose of Reading Recovery is to eliminate the problems associated with students who have reading difficulty. It is a program for early intervention. There are many students who begin school each year that are at risk for reading failure. Some come from homes of poverty or were lacking early literacy materials and activities with adults. Many of these students are unfamiliar with the types of interactions and experiences that other children have been exposed to. There are many reasons why some children do not advance in school. These reasons may include age, parent involvement, disabilities, and being developmentally delayed. This is why there are early intervention programs. Approximately one-quarter of the Bixby students in Oklahoma who are referred each year are referred to developmental reading classes. These include the federally funded Chapter I, also known as Title I classes. Educators in the Bixby school system do not know which intervention program is the most effective. Since most school systems are fighting just to maintain the current operational budget, it may seem impractical to consider any instructional intervention that requires substantial initial expenditures, even if that intervention is instructionally effective. However, when considering whether they can afford to implement new programs, school districts should realistically weigh the short-term costs against the potential long-term cost savings (Dyer, 1992).

Rasinski (1995) suggests that phonological awareness plays an important role in the process of learning to read. Other researchers, such as Adams (1990) and Hiebert and

Taylor (1994) also suggest the importance of phonological awareness. It helps children to understand the basic concepts about print such as being able to tell the difference between letters and words. Children are able to do this through reading emergent and early literacy books and also through writing. Phonological awareness and orthographic processing (graphemic pattern of a written language) are required for a person to read. This allows the reader to put sounds together to form units and to be able to visualize the word.

Orthographic processing is linked to early literacy because it requires children to know where to look when reading. It is linked with phonemic awareness because children have to be aware of letter/sound relationships, graphemes, and syllables. Children rely on their own visual strengths when learning to read. Letter/sound knowledge, phonological awareness, strategies for monitoring by sound/letter relationships and searching for letter/sound cues are developed across the Reading Recovery lesson (Rasinski, 1995).

Although these processes are critical in reading, it is uncertain which instructional approaches combine to best teach a child how to read. The questions being asked are the following: (a) What success in reading is attributed to early intervention using predictable books that develop phonological awareness? (b) To what degree is success attributed to a second-grade reading program that combines the writing process, and an individualized instruction plan to develop independent reading skills that will help the child show growth as compared to the success attributed to a traditional reading program with second grade students?

Purpose

Our educational system provides many remedial opportunities for our children. These include Title I reading programs, special education, and tutoring services. The number of students needing these services mystifies educators. Current pedagogy demonstrates that educators are seeking higher educational goals and keeping current with research and philosophies. Yet, these do not explain why so many children need extra help with reading. Research can provide insight, thoughts, and philosophies about possible reasons but there are no accurate explanations. This present study is in pursuit of such explanations. It is designed to investigate how a modified Reading Recovery Program contributes to literacy. This refers to a student reading at grade level by the end of the program.

Objectives

In this study, the model used is a representation of a method that includes a modified Reading Recovery Program and phonological awareness that demonstrates the influences of a successful reader. These factors provide success for a child who is experiencing reading difficulty. Research with Reading Recovery indicates that many children make accelerated progress in that program. It is through using sounds in reading and writing that children develop phonological awareness. Reading Recovery offers children many opportunities to use letters and sounds in a purposeful, metacognitive manner (Spiegel, 1995). The purpose of this study is to explore the reading process and

assess the effect of strategies upon children of varying ages, reading levels, and cognitive levels.

Strategies

The control group used the MacMillan/McGraw-Hill Basal Reading Program for their reading instruction in the classroom. Materials included the basal reading books and workbooks. The experimental group practiced the following activities:

Group Activities Using Books

There were a variety of strategies used in the Title I classroom. Each day, students participated in a group reading activity. This included shared readings of big books and small books, echo reading, using the cloze procedure, and reading with tapes. Skill and strategy techniques were used. This included predicting, discussing and confirming. Instruction on capital letters, lower case letters, short vowel words, long vowel words, sight words, blends, consonants, consonant digraphs, and syllables were included. Students also made class books and individual books.

Caldecott Medal Books and Newbery Medal books were used in group lessons. Other lessons included chunking, critical reading, directed reading activities, using expository text, working on fluency, guided reading, KWL charts, oral language, letter recognition and narrative texts.

There were lessons that focused on sight word recognition, segmenting, structural analysis, schemata, task analysis, vowel digraphs, vowel diphthongs, word sorts, reading at the instructional level, frustration level, and independent reading level, metacognition skills, and skill and strategy.

Phonological Awareness Activities

Phonological awareness activities were also used with the Title I students. These activities included learning about word families and onset and rime. We broke down phonemes by saying them, clapping for each phoneme, distinguishing between initial, middle and ending sounds, and writing the grapheme for each phoneme. We played phoneme Bingo and made class books that illustrated words in different word families. Other curriculum activities focused on decoding skills, preparing for formal tests and informal reading assessments, and segmenting.

Writing

Writing was a part of this program. We did activities that included oral language and written language. Students had their own Journal. Writing activities were completed four days each week. Students were asked to respond to books and also had free choice in choosing their writing topic. The students also made their own books. These books came from their Journal and were typed. The books were written, illustrated and published in our classroom. Each student had the opportunity to read their book to other students, teachers, and parents.

Age Levels

The age levels of the students varied. These are second grade students. Ages are from seven years old to eight years old. This is true for the experimental and control groups. The reading levels of the experimental group ranged from pre-primer to second

grade. There were twenty-eight students in the Treatment Group and thirty-three students in the Control Group.

Definition of Terms

The following terms were encountered throughout this study. If a term has been used by a researcher in a way that differs from other researchers, attention will be given to the variance in the meaning.

Caldecott Medal Books

The Caldecott Medal is presented annually by the Melcher family in honor of Randolph Caldecott, one of the most famous English illustrators of children's books. The medal is awarded to an American illustrator for the most distinguished picture book for children (Crawley & Merritt, 1996).

Chunking

Chunking is a technique to encourage the student to read phrases of language that represent meaning rather than separate words. It focuses on reading phrases of text that represent a thought. Chunking facilitates comprehension and fluency by using thought units rather than word-by-word reading (Walker, 1996).

Cloze Procedure

The instructional cloze is a technique that develops comprehension by deleting target words from a text. This encourages the student to think about what word would make sense in the sentence and in the context of the entire story (Walker, 1996).

Comprehension

This is an understanding of what is heard or read (Crawley & Merritt, 1996).

Consonant Blend

This is two or more letters that are combined or blended together so that each sound is heard (Crawley & Merritt, 1996).

Consonant Digraph

This is two letters that are not alike but produce one sound (phoneme) that is different from the sound of the two letters (Crawley & Merritt, 1996).

Criterion-referenced Testing

This involves tests that compare a student's performance against established benchmarks. These benchmarks or criteria are usually expressed as numerical ranges that define levels of achievement. For example, an 80–85 score may mean high performance among levels of achievement ranging from unsatisfactory to outstanding. Criterion-based

testing can also involve holistic scoring of writing, for example, where a score is based on a set of pre-established consensual criteria (IRA, 1994).

Critical Reading

This is a process of making evaluations or judgments when reading (Crawley & Merritt, 1996).

Curriculum

We can think of curriculum as having three components: the envisioned curriculum, the enacted curriculum, and the experienced curriculum. The envisioned curriculum is the vision of the lives we would like to live in classrooms. The enacted curriculum is our daily attempts in classrooms to put the envisioned curriculum into practice. The experienced curriculum is the sense the language learner makes of what goes on in the classroom and is thus constructed within the language of that classroom (IRA, 1994).

Decoding

This involves converting coded signals into understandable messages. Decoding may involve reader use of phonic analysis, structural analysis, or context clues in word identification (Crawley & Merritt, 1996).

Directed Reading Activity

A directed reading activity (DRA) is an instructional format for teaching reading where the teacher assumes the major instructional role. He/she develops background knowledge, introduces new words, and gives the students a purpose for reading. Then he/she directs the discussion with questions to develop reading comprehension (Walker, 1996).

Echo Reading

Echo reading is a form of modeling oral reading where the teacher reads a line of a story and the student echoes his model by reading the same line, imitating his intonation and phrasing (Walker, 1996).

Expository Text

This text is organized around main ideas and the supporting details that explain the main idea (Walker, 1996).

Fluency

This is being able to read words smoothly, easily, and expressively so that they resemble oral language (Crawley & Merritt, 1996).

Formal Test

Formal tests are standardized instruments even though how rigorously with which these tests have been standardized varies from test to test. Formal tests can further be classified as achievement tests, survey reading tests, and diagnostic reading tests (Joshi, 1995).

Frustration Reading Level

This provides an estimate of the level where the reader is not fluent and has little recall of textual information (Walker, 1996).

Guided Contextual Reading

This type of reading focuses on meaningful interpretation of whole stories, while allowing students to demonstrate their strengths (Walker, 1996).

Hard and Soft <c> and <g>

When the consonants <c> and <g> are followed by the vowels <e>, <i>, or <y>, they usually have their soft sounds, that is, the sound of /s/ and the sound of /j/ (Crawley & Merritt, 1996).

Independent Reading Level

This type of reading provides an estimate of the level where the student can read fluently with a high level of comprehension. The student reads and understands enough of the text to monitor his/her own reading performance (Walker, 1996).

Informal Reading Assessment

To begin gathering data, the diagnostic teacher samples reading behavior across levels of text difficulty to identify the student's level of performance. To make this assessment, the teacher uses a series of graded passages that range in difficulty from first grade to junior high (Walker, 1996).

Instructional Reading Level

This provides an estimate of the level where the student experiences a mild amount of stress between the text and his/her present reading strategies (Walker, 1996).

Journal Writing

Journal writing is a written response and exploration of ideas related to reading or a particular unit of study. In notebooks, students write about their reactions to new information, ask questions, elaborate new understandings, and so on (Walker, 1996).

Know–Want to know–Have learned (KWL Chart)

Before students begin reading about a topic, they identify what they already know about it. Next, have students identify what they want to know about the topic. After students have finished reading the selection have them identify what they have learned (Crawley & Merritt, 1996).

Language

Language is a system of signs through and within which we represent and make sense of the world and of ourselves. Language does not contain meaning rather, meaning lies in the social relationships within which language occurs. Individuals in communities make sense of language within their social relationships, their personal histories, and their collective memory (IRA, 1994).

Letter Recognition

This is the ability to identify a graphic symbol belonging to a standard alphabet (Crawley & Merritt, 1996).

Metacognition

This is the knowledge of one's own cognitive processing and the ability to undertake deliberate corrective actions when comprehension fails are aspects of metacognition (Joshi, 1995).

Narrative Text

This type of text is organized using characters who have problems that are solved. The story line is developed through characters' actions, the consequences of their actions, and events that occur in solving their problems (Walker, 1996).

Newbery Medal Books

The Newbery Medal is presented annually by the Melcher Family in honor of John Newbery, a British bookseller and the first publisher of children's books. The medal is awarded to an American author who makes the most distinguished contribution to children's literature (Crawley & Merritt, 1996).

Norm-referenced Testing

This is the most prevalent form of large-scale testing in which large groups of students take a test and the scores are grouped and interpreted in relation to other scores. In other scores, the score of any student or group (school, district, state, or nation) has meaning only in relationship to all the other scores of like entities, e.g., school to school, district to district, state to state (IRA, 1994).

Phonemic Awareness

This is an understanding that speech is composed of a series of individual sounds. Cat, to a young child, is simply cat, a furry animal that purrs. Young children are unaware

that the spoken utterance *cat* is a word that is made up of a series of sounds, or phonemes, /k/, /a/, /t/ (Yopp, 1992).

Predictable Books

Predictable books contain phrases or sentences that are repeated. Students are able to predict a phrase or sentence because of the predictable pattern in the story (Crawley & Merritt, 1996).

Reading

Reading is a complex negotiation among reader, text (an unseen author), purpose, and context (IRA, 1994),

Reading Rate

This refers to the speed at which a person reads to accomplish his/her reading task (Crawley and Merritt, 1996).

Reading Recovery

The Reading Recovery treatment is an individual tutorial. Materials include a collection of books, organized on a gradient of difficulty, blank writing books and magnetic alphabet letters. Children receive daily 30 minute lessons that follow a basic instructional framework of (a) familiar rereading of easy books, (b) independent reading of an instructional level text, (c) an optional component to develop letter knowledge, (d) composing and writing a sentence, (e) reconstructing a cut-up version of the sentence, and

(f) talking about and then reading a new, more challenging text (Bryk, DeFord, Lyons, Pinnell, & Seltzer, 1994).

Strategy and Skill Instruction

This type of instruction focuses on specific areas of concerns that might be inhibiting students' active reading (Walker, 1996).

Structural Analysis

The breaking down of words into their units of pronunciation. The units that are common in structural analysis are compound words, contractions, morphology, and syllabication are the common structural analysis (Crawley & Merritt, 1996).

Segmenting

This refers to the act of isolating the sounds in a spoken word (Yopp, 1992).

Sight Word

This is a word that the student can instantly recognize and pronounce without resorting to the use of word analysis (Crawley & Merritt, 1996).

Schemata

In constructing meaning, the reader integrates new knowledge derived from the text with his or her background in ways that make sense. This background knowledge is

referred to as schemata: the theories we hold about events, objects, and situations (Wade, 1990).

Task Analysis

It identifies behaviors inhibiting student reading and isolates the specific strategy or skill to be taught (Walker, 1996).

Vocabulary

These are words whose meanings people know or do not know; the number of meanings people know of a particular word (Crawley & Merritt, 1996).

Vowel Digraph

These are vowel pairs that make a single sound (Crawley & Merritt, 1996).

Vowel Diphthong

This involves a unison of two vowels that produce a sliding sound (Crawley & Merritt, 1996).

Woodcock Reading Mastery Test

The Woodcock Reading Mastery Test is actually an individually administered comprehensive battery of tests measuring aspects of reading ability such as visual/auditory learning, letter identification, word attack, word identification, word comprehension, and passage comprehension.

Word Sorts

Word sorts are ways to sort word cards where the readers share how they categorize words. For example, a reader might categorize words on the basis of similar letter patterns, word meanings, or grammatical functions. This technique uses target words to help students review and remember words by categorizing like characteristics (Walker, 1996).

Theoretical Background

Reading Recovery (Clay, 1993) has been used in the past as a successful program that targets at-risk students who are in the first grade. These students are given opportunities to help with their progress and leave the Reading Recovery program by reading at grade level. The low reader has few reading strategies. This child may rely on memory for reading and does not even realize the illustrations. This child may spend so much time on trying to figure out the letter or word that comprehension of what is being read is totally confusing or simply missing. “Unbalanced ways of operating on print can become habituated when they are practiced day after day. They become very resistant to change. This can begin to happen in the first year of formal instruction” (Clay, 1993, p. 9). This is why more observation is needed on students’ reading processes. Teachers who can provide attention will be more apt to provide further insight into children’s thought processes. This is why observation of young children in the first years of schooling can provide meaningful research and information for other teachers.

Early intervention is the key to helping children with reading difficulties.

Sometimes, not all children have these needs met during the first grade. Some students may not ever reach grade level. Clay (1993) found:

In the lowest reading group of many classes there could be a child who has never started to learn to read. Such children may be given remedial attention two and three times a week for several years yet they do not catch up to their peers; they may gain some reading skills but do not usually make up for those years of lost learning and their associated sense of failure (p. 14).

Children, like adults, need to learn the basics of reading from the very beginning. This includes awareness of phonemes, left-to-right correspondence, structure of sentences, lower case and capital letters, background knowledge, meaning of the text, strategies for comprehending text, and the importance of sounds and words. “The smarter readers ask themselves the most effective questions for reducing uncertainty; the poorer readers try lots of trivial questions and waste their opportunities to reduce their uncertainty” (Clay, 1993, p. 9).

Importance of Phonological Awareness

Research done by Anderson, Holligan, and Johnston (1996) indicates that phonological awareness plays a major role in the reading process. A child must have the necessary background in the awareness of phonemes. “In order to determine the direction of the causal relationship between phonemic awareness and reading skills, a number of training studies of phonemic awareness have been carried out. These show that phonemic awareness training enhances later reading skill” (Anderson, Holligan, & Johnston, 1996, p.

218). Their study involved 51 children who were in two different nursery schools. There were 34 girls and 15 boys. Neither school taught the children to read and abstained from teaching the alphabet. The children were given a variety of tests, which included the British Picture Vocabulary Scales, British Ability Scales Word Reading Test, Clay Ready to Read Word Test, Yopp-Singer phoneme segmentation test, Rosner Test and Frostig Test. Evidence showed that the students had knowledge of the alphabet before they had phonemic awareness.

Importance of Linguistic Abilities

Other research has been done on the importance of early linguistic abilities that will promote reading in students. Children who have a low awareness of the units of speech will have a more difficult time learning to read than those who are able to hear phonemes and manipulate them. Elbro (1996, p. 477) suggests that phonological representations are gradually restructured during the first five to eight years of language acquisition. Phonological representations, which are initially wholistic, are gradually reorganized into increasingly smaller segments, ultimately segments of phoneme size.

Phonemic awareness has been researched in other countries as well (Yopp, 1992). All children must have the ability to identify sounds at the phoneme level. Research shows that there is a relationship between phonemic awareness and learning to read. In all countries, "Reading instruction, in turn, heightens their awareness of language. Thus, phonemic awareness is both a prerequisite for and a consequence of learning to read" (Yopp, 1992, p. 697).

It is also of great importance for children who are having difficulty with reading strategies to be involved with some type of program that offers additional help and support. One such program is Reading Recovery. It involves knowing about letters, sounds, syllables and sentence structure. Visual information is important for the reader. “The beginning reader must discover for himself how to do this scanning and how to visually analyze print to locate cues and features that distinguish between letters and words” (Clay, 1993, p. 10).

Hypotheses

The hypothesis of this study is formulated on strong beliefs and research that reveals that success in reading is attributed to phonological awareness and early intervention. There are other influences that also involve a modified Reading Recovery Program in a second grade classroom. These include the use of predictable books, the writing process, and early literacy activities. We can write the formula for this hypothesis as follows $PP + MRRP + PA + WR = \text{growth in reading so the student will or will not be closer to reading on grade level}$. PP = Predictable books, MRRP = Modified Reading Recovery Program, PA = Phonemic Awareness, and WR = Writing Process.

The following are the hypotheses for this study:

Hypothesis #1: The students in the experimental group, as compared with the control group in the second grade level, will demonstrate higher listening comprehension skills and will show growth with fluency, sight word recognition, and phonemic awareness.

Hypotheses #2: Utilizing graphophonics, syntactic clues, semantics, and oral reading each day will have major impact on the success of the students.

Assumptions

The assumption underlying the interpretation of this study is that growth in vocabulary and fluency results from phonemic awareness, oral reading at the instructional level each day, graphophonics, and a modified Reading Recovery program. It is assumed that the battery of tests used in this study will measure the performance of these contributors of reading success. All students will be tested. It is also an assumption that the tested individuals at the second grade level will demonstrate more growth in these areas than students who receive a small amount of these contributors.

Limitations of the Study

The main focus of this study was limited to the identification of those factors that contribute to the growth in vocabulary and phonological awareness for students with a variety of reading levels in grade 2. The following limitations apply to this study:

1. This study used students from public school systems in one state which is located in the southeast section of the United States.
2. This study utilized only second grade students.
3. The subjects used in this study were classified at a variety of reading levels. These levels ranged from emergent readers to second grade level readers. Some of these students might have been retained or been attending special classes.

4. These students were attending a remedial reading class for additional help and support with reading.

Organization of the Study

The organization of this study is arranged in the following manner:

Chapter I introduces the study and states the problem, purpose, and objectives of the study. It presents a theoretical background and defines terms. It states the hypotheses to be tested and gives assumptions. It also states the limitations of the study.

Chapter II contains a review of the literature, which is related to Reading Recovery and its components and philosophies. It also reviews research about phonemic awareness and how these two processes influence the growth and success of vocabulary and listening comprehension. The historical background and discussion of these philosophies and methods are given in the review. A short summary follows the review.

Chapter III presents the instruments used in the study. It also presents the methods, the data gathering procedure, the techniques, the statistical data, and an analysis that were used.

Chapter IV presents the results of the study. There are tables that summarize the data.

Chapter V summarizes the findings of the study and the research. It also presents the conclusions and provides recommendations for further research to be done on this topic. A bibliography and other materials follow this chapter.

CHAPTER II

REVIEW OF RELATED LITERATURE

This review of literature looks at Reading Recovery, phonological awareness and the influences that contribute to developing a successful reader that demonstrates growth in vocabulary and listening comprehension. The review begins with a look at Reading Recovery programs. This includes the components of Reading Recovery and the contributors that make it a successful program with first grade students. Attention is given to components of Reading Recovery that would be successful in a second grade classroom. Past studies are also viewed in order to assess what students are missing between first and second grade. Other factors are considered such as parent involvement, language environment, amount of time that a child was read to, how much a child reads today, and background knowledge.

Phonological awareness is also reviewed. Studies done by Hanley and Huang (1994) and Lundberg, Frost, and Petersen (1988) are reviewed. These studies suggest that there is a correlation between phonological awareness and growth in vocabulary and listening comprehension. Research from around the globe demonstrates the influences and contributions of phonological awareness. These studies provide valuable insight into how the knowledge of phonological awareness is connected to reading.

Reading Recovery

Background Information

Reading Recovery was developed by Marie Clay, a child psychologist from New Zealand. The Reading Recovery program that she developed has been in use for over twenty years in New Zealand. It is estimated that nineteen percent of the first grade students are served in that country. “In 1984, with the help of Dr. Clay and her New Zealand colleague Barbara Watson, Reading Recovery was introduced in the United States” (Dyer, 1992, p. 10). The pilot study was done in conjunction with the Ohio State University and the Columbus Public School system.

The philosophy behind Reading Recovery is that reading is a strategic process that takes place in a person’s mind. It is believed that reading and writing are connected. One cannot be done without the other. The program stresses early intervention so the child is not lost in a cycle of reading failure.

The program is geared toward the bottom twenty percent of first graders who are not at grade level in reading. The program looks only at reading and writing capabilities. There is no emphasis on race, religion, language development or learning disabilities. The goal is to intervene at this time in order to catch these children before it is too late. The children are to be served during the first grade year so they are able to catch up with their peers and have no problems when entering the second grade. Reading Recovery is not intent on making these students “super” readers but rather giving them enough help and to learn reading strategies that will put them at least at an average level and also to make

them independent readers. Once they are considered an average reader as compared to the majority of their class, they are released from the program.

The Department of Education in New Zealand provides the funding for the program. The teachers receive special training. The training is for one year and is offered on three different levels. There is teacher training at the master's level of instruction, which is for experienced teachers. They attend weekly classes and work with children daily. Teacher leader training is postgraduate instruction and prepares them to teach children, train other teachers, and operate a training site. Instruction for trainers of teachers is a one-year residency program at the postgraduate level. It is to prepare university faculty to teach children, teach teacher leaders and operate a regional training center.

In a Reading Recovery program there are no worksheets or workbooks. There are no teachers who are asking their students to repeat sayings or terms. Instead, the room is print-rich and words are everywhere. There are books all around. There is a variety of styles of books. There are stories written out on chart paper and everything has a label so that the children can constantly be surrounded by letters and words.

“From the time children in New Zealand enter school on their fifth birthday, the main item on the academic agenda is becoming literate” (Goldenberg, 1991, p. 555). Students who range in age from 5–8 are involved in reading activities such as reading, writing, language arts, listening, and speaking. Most of the time is spent on these activities which usually takes more than an hour. The other main activity they focus on is math.

These activities begin when the child enters school on the first day. Students read aloud, read with the teacher, read independently and do writing activities. The purpose of the activities is for the child to understand what communication is and to develop meaning from text. The books used are from a company called the Wright Group. These books vary in level of difficulty and are labeled by an alphabet letter. A big book and little books go with each story. Each Reading Recovery lesson includes:

- Reading familiar stories
- Reading a familiar story that was read for the first time the day before
- Working with letters and words using magnetic letters
- Writing a story
- Assembling a cut-up story
- Reading a new book that is read independently the next day

During these activities the teacher demonstrates strategies for reading so that the child learns to problem-solve on his or her own. The goal is for the child to learn valuable reading and writing strategies that will promote independent reading and writing. This is an approach that is holistic and does not include the traditional classroom that involves worksheets. The teacher does group activities with the big book that include shared reading and choral reading. Then, a one-on-one format is used to read with the children and to listen to them read independently. Also, the teacher helps with journal writing. Letters and sounds eventually turn into words, and then sentences. Children also make their own books. The one-to-one format tries to meet the individual needs of each child, and thus each lesson and path for success is individualized.

When the teacher does guided reading, he/she introduces the book by looking at the cover and doing some predicting activities. The title of the book is read and the students share their thoughts about the structure of the story and what it will be about. The story is then read and students are given time to make comments or ask questions about the text and the pictures. The teacher calls attention to key words, punctuation marks, picture cues and phrases. On some days, the entire story will be read again or just portions of the text will be read. Students become familiar with the story before actually reading it. "The teacher helped build the anticipation by encouraging children to talk, share pertinent ideas and experiences, and make predictions about the selection" (Goldenberg, 1991, p. 556).

Another focus of the Reading Recovery program is fluency. The teacher helps the students when they come to a word and are having a little difficulty. The students are encouraged to use the three cueing systems. They are graphophonics, semantics and syntactic cues. Some common questions a teacher may ask when helping a child are: "What does it look like?" "Does that sound right?" "Does that make sense?" This way, the children are focusing on the use of context and visual cues.

Children do independent work after the group activity of shared readings and skill and strategy. During independent work, children read books either independently or with a partner. They also use magnetic letters to make words or phrases; play games that include sounds, words and sentences; and complete writing activities. The writing activities include students making journals, pattern writing, and making their own books. Sometimes, the children will listen to books on tape. A lot of the tapes put the stories to music.

“The entire process of literacy development seemed to involve an exquisitely complex and subtle interplay between acquiring the skills of literacy while focusing on the meaning for which literacy is a vehicle” (Goldenberg, 1991, p. 557). The children practice these skills independently, which in turn builds fluency. Word recognition helps students learn to read. This is done by repetitive readings of texts and writing texts in journals. When a child sees a word many times in actual context, the automaticity comes into play. Then, students are able to practice writing them also.

According to Goldenberg (1991, p. 561), what remains impressive about New Zealand’s approach to literacy is the unequivocal and progressive stance the educational establishment has taken with respect to achieving early, universal literacy for the entire populace. The Reading Recovery program in New Zealand is given resources that include funding, the training of teachers, time, and books. These resources are able to provide children with the necessary opportunities that include a print rich environment and early literacy activities that provide many literacy experiences. This all aids in literacy development that is so crucial in the early years. The children who are falling behind are given a chance to be with trained teachers.

There are also many professional books that are published by the New Zealand Department of Education about literacy. Teachers take these seriously. Books for the classroom are also provided instead of using the tradition basal book. Experienced and trained teachers work directly with the classroom teachers to develop the curriculum. Policies in New Zealand are different from those in most countries (Goldenberg, 1991).

Goldenberg is not saying that all people should adopt this program. He does suggest that it is doing more than some of the American programs. The most we can learn

from the people in New Zealand is that professional education for the professional staff should be taken into consideration. There is a need to know how to best achieve literacy and to have the most appropriate materials to do this. The Department of Education of New Zealand has much to offer its teachers and schools.

An evaluation of Reading Recovery (Center, Wheldall, Freeman, Outhred, & McNaught, 1995) was done on ten schools in New South Wales, Australia. These ten schools were using the Reading Recovery program. They were divided into three groups. Group I was comprised of low-progress students. Group II, which was the control group, was made up of low-progress students who had not entered the program by the time of short-term testing of all students. Group III, which was the comparison group, was made up of low-progress students from five comparison schools where Reading Recovery was not taking place.

The children in Group I were not given any extra support or remediation in reading while they were in the Reading Recovery program. The children in Group II took advantage of any support in reading that was available until they entered the program. Children in Group III, which consisted of eight students from each comparison school. As to effects of regular classroom teaching on students who were in the Reading Recovery program and the students who were in the comparison schools, no assumptions could be made. There are no similarities.

All students were given pretests that included The Burt Reading Tests, The Clay Diagnostic Survey, Record of Reading Behavior on Books, Letter Identification, Concepts About Print, Word Tests, Writing Vocabulary, and Dictation. Posttests were given after fifteen weeks which included The Neale Analysis of Reading Ability, Passage Reading

Test, Waddington Diagnostic Spelling Test, Phonemic Awareness Test, Syntactic Awareness (Cloze) Test, and Word Attack Skills Test. Another posttest was given after fifteen weeks for short-term maintenance, and again at twelve months. These students were deficient in phonological skills and needed strategies for reading. There was only a slight gain in scores of the control group when compared with the comparison group. The difference was not significantly greater. Methods of teaching and curriculum are crucial in helping children learn.

According to Dyer (1992, p. 12), the common practice of student in-grade retention used in most school systems is coming under scrutiny. Over 2.4 million students are retained in grade annually in the United States, with a national cost of almost \$10 billion. The Chapter I programs are designed to prevent many of the retentions and get students back on grade level. This article suggests that most Chapter I programs focus on skills and drills as remediation. This is mostly the same type of instruction they are getting in the regular classroom and now they are getting even more worksheets. Teachers may even have low expectations for these students, which does not help things at all.

Students in a low-income area are entitled to receive Chapter I funding if they fall between the 30th or 35th percentile on a standardized reading achievement test. Teachers can choose to use this funding for Reading Recovery if they receive enough and if they choose to do so.

The major cost of Reading Recovery is the teacher training. However, the schools can still choose to use the materials and learn about the program on their own. Teachers can observe other Reading Recovery programs and receive information about the program in order to implement some of its philosophies and books. Reading Recovery is a cost-

effective program for children at risk and helps schools refrain from labeling children and retaining them.

Another study was done by Glynn, Bethune, Crooks, Ballard, and Smith (1992) that evaluated the Reading Recovery program in twelve New Zealand schools. Reading Recovery and comparison pairs of children were identified by the procedures of Reading Recovery that each school used. The results indicated that few schools followed the recommended entry procedures and the procedures for discontinuing the students. The target children's reading progress showed significant gains. The gains had declined by the time of follow-up. The data demonstrated that the program gains were greatest for children who were the lowest when they entered the reading program. It is suggested that there needs to be a closer relationship between the classroom teachers and the Reading Recovery teachers. Children in the regular classroom need to spend more time reading individually to their teachers.

There is a need for the classroom teacher and the Reading Recovery teacher to collaborate to help make the students more successful with reading. Successful teaching stems from teamwork and unity among the teachers. The weakness with the Reading Recovery program is the gains of the children over a period of time. There is something missing with the children between the time they exit the Reading Recovery program and a year later. This could be due to classroom teaching or practices, or the environment of the children at home or at school. When students are exposed to an intense reading program they need to stay with that method of teaching. Going from one extreme to the next is not healthy in any situation. I suggest that any school that uses the Reading Recovery program should involve all teachers, not just the Title I teachers.

According to Reynolds (1993), Reading Recovery has been successful because students learn to read by bringing forth the language they already know, and by using this language as the basis for gaining proficiency in the graphophonic, semantic and syntactic cueing systems needed to become independent readers. Clay (1993) agrees stating that if students do not know these three cueing systems, there will be no fusion, and learning to read will not take place. Early intervention focuses on the three cueing systems and allows the student to take control. The greater the grasp a student has of these systems, the greater the degree of speed and accuracy of his or her reading.

To increase reading rate, a student needs more practice. This allows him or her to have greater control and to develop as a reader. Once the student takes ownership of this, the more independent a reader he or she becomes (Reynolds, 1993). Language is connected to reading. The Reading Recovery program does offer the processes of language to students. Language is what we need in order to read and to be a part of this fast-paced world.

Barr and Shanahan (1995) examined the Reading Recovery program in terms of an early intervention program, compared the United States with New Zealand, and discussed the cost of the program when compared to alternatives. They found that reading achievement and amount of reading in New Zealand have been reported to be higher and more homogeneous than in the United States. One of the reasons relates to when the Reading Recovery program was implemented in the United States. Children in different countries enter school at different ages. In New Zealand, children attend an early childhood program through the age of four. They have finished their first primary grade by age six. In the United States, children are just starting their first grade year at age six.

The research in this study suggests that some students who are selected for this program in New Zealand are not at risk. Some who are in the program would be successful even if they were never in it, while others, mainly special education students, would benefit more from special classes. This keeps students who are at risk from being able to be in the program. This keeps the cycle going. The poor reader gets poorer.

Barr and Shanahan (1995) also thought that few studies have provided any clear breakdown of the racial, ethnic, gender, economic, or home characteristics of the students. Therefore, more research needs to be done on the effectiveness of early intervention programs that are cost effective and show results.

Reading Recovery Compared With Other Reading Programs

Pikulski (1994) reviewed five reading programs for at-risk first grade students and found that there are features common to each of these reading programs. However, this article does not prove the effectiveness of the programs. It is just stating what the programs offer. The five programs reviewed are Success For All, The Winston-Salem Project, Early Intervention in Reading, The Boulder Project, and Reading Recovery.

The Success For All program is for all students in grades kindergarten through third. The students who are in grades first through third are grouped heterogeneously in groups of about twenty-five students. They have a reading period each day during which they are regrouped by reading level across all three grades. This lasts ninety minutes. Instruction is “whole group,” and there are no worksheets. Students who are still behind receive an extra twenty-minute tutoring session, which emphasizes the same activities.

The idea that the students receive whole-group instruction with no worksheets is appealing. This means more time for constructing knowledge. However, the research did not state what types of books or methods were used. It is interesting how students are grouped by reading level. The high group will always know where they stand, as will the low group. This goes back to “round robin” reading just with larger groups. How depressing to know that you are in the “buzzard” group and all you strive for is to be an “eagle.”

In The Winston-Salem Project students are taught in heterogeneous groups in blocks of thirty minutes. Students are instructed with a variety of children’s literature and paperbacks. Then, there is a Writing block where the student completes different activities. The next part of the program is the Working with Words section, which is a word wall. The students learn to spell the words by making words. The last part of the program is the Self-Selected Reading Block. Students are able to choose their own books from any topic. The teachers believed the first grade students were not getting enough instruction when they finished their grade, so, the same intervention procedures were used with them during their second grade year. This is the only program that does early intervention procedures with second grade students.

Early Intervention in Reading is a first grade intervention program. The regular classroom teacher does most of the teaching. The teachers work with the lowest 5–7 students in the class each day in addition to devoting time to the regular reading instruction. The extra time is about twenty minutes. The teacher uses predictable books and does repeated readings. Also, there are activities for phonemic segmentation, blending and word recognition. Students are given an extra five minutes to do a follow-up

activity or more reading. Twenty minutes is not very much time when there are at least five to seven students to do activities and read with. The teacher is not able to spend five minutes on a one-on-one basis if she has more than five students.

The last program reviewed was Reading Recovery. This program involves one-on-one tutoring with a child for thirty minutes a day. The program has a specific framework, which involves five different activities. First, students read familiar stories; second, the teacher keeps a running record of the child's oral reading; third, the student works with letters; fourth, the child dictates a story or sentence while the teacher writes it down and then reads it back to the child; and fifth, the teacher writes the story or sentence on a strip of paper and then cuts it into individual words. The child reconstructs it, and then reads a new book and does activities that stem from the book.

The program of Reading Recovery has so much work for the child to do within the thirty-minute time span. It would be interesting for the program to follow through with the students during their second grade year. These second grade students need an intense reading program so they do not lose what they have learned.

According to Pikulski (1994), Reading Recovery and the Boulder Project appear to be exclusively supplementary programs that assume no responsibility for the students' regular classroom reading instruction; both are conducted outside the classrooms. Neither one of these programs addresses how to improve classroom reading instruction. The Early Intervention in the Reading Recovery Program makes no attempt to coordinate reading instruction with the regular classroom. The Success For All Program and the Winston-Salem Program provide reading instruction from all the teachers in order to

reduce the number of students. The Winston-Salem program adds another 45 minutes of instruction.

In comparison to the other four early intervention programs, the Reading Recovery program has more in-depth learning for the students and also has the most specific teacher training. Teachers have to attend classes once a week for a year and then do a follow-up the next year. The other programs either have a little training or no training at all. Early intervention needs to be the key to reading success and no more money should be wasted on retention.

A study done by Spiegel (1995) compared the traditional remedial classrooms and Reading Recovery programs. Fifteen guidelines were suggested for evaluating and improving remedial reading classrooms. "Through an analysis of observational research in traditional remedial classrooms and published Reading Recovery procedures, I have made some conjectures about why Reading Recovery seems to work and why the record for traditional remedial programs is less than impressive" (Spiegel, 1995, p. 89).

The most agreeable portion of this research shows that students should focus on comprehension, spend time reading at their instructional level and learn strategies to become independent readers, and that writing should be a part of the program. Strong points of the article are the guidelines that suggest success for at-risk learners. Reading Recovery has much to offer students.

The methodology of Reading Recovery involves using a format each day that involves a variety of activities. These activities may not focus enough time on word skills and may be somewhat misleading. A study done on ten schools that involved forty-two children examined the effects of Reading Recovery. "The children had achieved greater

gains in reading book level than the comparison children at discontinuation, this positive effect had largely disappeared a year after the target children had left the program” (Chapman & Tunmer, 1991, p. 62). The year following the Reading Recovery program is when students begin falling behind.

Another factor that may be a cause of failure is repeated learning failure. “Repeated failures lead many children to believe that they do not have sufficient ability to succeed and that their efforts have no significant impact on achievement outcomes” (Chapman & Tunmer, 1991, p. 67). Students correlate their self-perception with their learning ability. Students are aware of their learning ability at an early age, and this continues to stay with them. Motivation is decreased, and this only adds to inadequate reading skills.

This research shows that Reading Recovery is a successful early intervention program; however, students do not continue to show gains after one year in the program. The program needs to be continued in the next grade level. Students still need to learn important reading strategies and to have time to implement them.

Tutoring

The oldest type of learning instruction is tutoring. Tutoring has taken many forms, such as getting help after school, working with a parent or friend, discussing a topic on the phone, or meeting with someone on an individual basis. Most of the remedial programs that the schools offer reduce the amount of students from the original class size. The groups are usually small and they are trying to achieve a one-on-one instruction plan but are stopped by guidelines, costs, and policies.

Research was done by Wasik and Slavin (1993) on five tutoring programs. The programs reviewed were Reading Recovery, Success For All, Prevention of Learning Disabilities, Wallach Tutoring Program, and Programmed Tutorial Reading. The Wallach Tutoring Program is similar to Reading Recovery. Students meet with a paraprofessional each day for thirty minutes. Students who score below the 40th percentile are candidates for the program. The program lasts about thirteen weeks. The program involves phonics but is not correlated with the reading material. Students must first learn the alphabet before learning to read. There is no attention given to the kinds of strategies that students use or need additional help with.

Prevention of Learning Disabilities is a program that identifies first and second grade students who are at-risk. Students are tested in the first grade by an instrument that focuses on neurological indicators of learning disabilities. The first grade students are given instruction in the weaknesses that are found. The intervention is called TEACH and taught by certified teachers for thirty minutes each day.

The Programmed Tutorial Reading uses first grade students who perform the lowest on a standardized reading test. The tutors for this program are parents or volunteers and they are paid for their services. The students are seen each day for only fifteen minutes. The main focus of the program is phonics. Students take small steps in their learning and are reinforced for their correct response. There is little to do with reading words in context and little emphasis is placed on comprehension.

“Programs with the most comprehensive models of reading, and therefore the most complete instructional interventions, appear to have larger impacts than programs that address only a few components of the reading process” (Wasik & Slavin, 1993, p. 196).

Also, simply the fact of using a tutor of some form does not guarantee the instructional practices and strategies will correlate with the needs of the students. Tutors who are certified in the area of reading would have a larger impact on the instructional practices for their students. Remedial instruction should integrate with the classroom instruction in order to correlate with the strategies and to enhance what is being taught.

Limitations of Reading Recovery

There are many drawbacks to the Reading Recovery program. There is no perfect program for teaching reading although many researchers and program developers would like to believe that they do have all the answers.

Research done by Iverson and Tunmer (1993) explored a study that hypothesized that children would learn to read more quickly if they had systematic instruction that made them aware of the inter-relatedness of visual patterns and sounds shared by different words. In the study, there were three groups of 32 children. The three groups consisted of a modified Reading Recovery group, a standard Reading Recovery group, and a standard intervention group. All of the students were in the first grade in Rhode Island. The students were considered at-risk readers and were from 30 schools within 13 different school districts.

The children in the modified and standard Reading Recovery group received regular Reading Recovery lessons. The children in the modified Reading Recovery group received training in phonological recoding skill. There were a total of 26 Reading Recovery teachers and 23 schools. There were 64 children. In the standard intervention group, there were 32 children, 7 schools and 7 reading specialists.

Materials that were used included the Diagnostic Survey which is a word recognition test and three phonological processing measures. These included a letter identification task, a word identification task, a concepts about print task, a writing vocabulary, a dictation task for hearing a recording sounds in words, and a running record of the child's reading behavior from the selected text.

Procedures in the standard Reading Recovery program used the seven activities that are used by Clay. These are re-reading of two or more familiar texts, independent reading of the preceding lesson's new book while the teacher takes a running record, letter identification using magnetic letters, writing a story, reassembling a cut-up story, introducing a new book, and reading the new book. In the modified Reading Recovery program, there was explicit instruction in letter-phoneme patterns which took place of the letter identification segment. After the children had learned letter identification, time was given for word analysis activities. Students were asked to build words with the magnetic letters that had similar visual elements.

Results from the study indicated that the two Reading Recovery groups performed at similar levels when discontinued and were placed back in the regular classroom. The children in the Reading Recovery groups performed better on all the measures than the children in the standard intervention group. The children in the Reading Recovery groups also performed better on the phonological awareness measures. This could be due to the phonological awareness activities that they received. The most interesting finding of the study was the difference in the number of lessons to discontinue students in the Reading Recovery groups. The children in the standard Reading Recovery group took much longer to reach the same point as the other group. The standard Reading Recovery group

was 37% less efficient than the modified group. This strongly suggests the importance of instruction using visual patterns and sounds that are shared by different words.

A study done by Tunmer (1990) reviewed the Reading Recovery program and also proposed his own hypothesis for a successful program. His first concern with the Reading Recovery program was that some children did not qualify as poor enough. He referred to this as the Matthew Effect because these children who cannot read just keep having more difficulty and make no progress. So, children who are really poor readers become even poorer at reading. Tunmer's other concern was for the children who were not successful in the Reading Recovery program. These children are also known as the third wave. They did qualify for the program but made little progress while in there. These children may be referred for special services such as testing but still may not qualify. Another alternative is retention but that is an entirely different topic in itself.

Tunmer suggested his own hypothesis which includes using syntactic awareness and phonological awareness. Using syntactic awareness leads to the use of sentence context clues so children are able to read unfamiliar words in meaningful texts. The other part which is phonological awareness leads to the use of graphophonemic cues so children are able to write unfamiliar words in meaningful messages. It is the combination of these two skills that can provide success. Guessing what text is saying will show little progress. There is no decoding in guessing. Learning to decode words provides the child with a strategy.

Another limitation of the Reading Recovery program is the cost and time of the training. The training is one year of instruction which is then followed by continuing contact. This is offered on three levels beginning with a master's level instruction that is

given by a teacher leader at a district training site. The teachers who are in this training attend weekly classes and work with children on a daily basis. During the training, teachers are trained using a one-way glass with the children. It is used by the teachers being trained. The one-way mirror is helpful for the teacher to observe and to train. This helps with observation and discussion. It provides practice and in-depth study. There are other forms of training for a teacher leader. This involves being able to train teachers, teach children, and operate a training site. After the training year, the Reading Recovery teachers attend regional meetings, workshops, and visits from instructors. The main drawback is the cost. It costs anywhere from \$10,000 to \$12,000 per teacher for the training. The cost does include some materials but is still very expensive to operate.

Increasing the Effectiveness of Reading Instruction

Several studies have examined ways to increase the effectiveness of their reading instruction including increasing comprehension skills and fluency. According to Rasinski (1995), a study on Reading Recovery done by Pinnell, Lyons, DeFord, Bryk, and Seltzer, did not give enough consideration to experience and training of teachers, instructional time, and the number of students taught per given period of time. This research addresses these three aspects. The Reading Success Program offers a two-week training period that is an abbreviated portion of Reading Recovery. The study indicated that the long-term training of Reading Recovery teachers is a crucial element in helping students overcome their reading difficulties.

Rasinki also found that the Reading Recovery teachers spent more than the allowed thirty-minute time span. These students were receiving more instructional time

and it is a possibility that they were achieving greater results because of this extra time. On the other hand, testing cannot prove if the extra time did cause the greater scores or if students would have scored the same regardless of the extra time. Time actually spent on task is a factor when learning to read. "It may be one of the key components of Reading Recovery is its ability to keep students' attention focused on literacy instruction throughout the instructional period" (Rasinski, 1995, p. 268).

Another criticism by Rasinski is that Reading Recovery cannot be compared to other reading programs because it is a one-on-one program and the others involve groups of students. Cost is another factor. Reading Recovery is an expensive program. The success rate must be considerably higher when the cost is compared to keeping students in the classroom or looking at alternatives for remedial instruction.

Another study was done by Gordon (1988) to determine the most efficient way of using kindergarten tests to predict second grade achievement in reading success. This study included one hundred and nine children and they were given twenty subtests from the Brigance's Inventory of basic skills in kindergarten. They were also given the reading section of the Stanford Achievement Test when they entered second grade. According to Gordon (1988), the combination of ten readiness subtests predicted both success and failure. The only weakness of the study is that predictions of weaknesses could not be made accurately. However, if this does have some accuracy, it could be a great benefit to the teachers in planning their lessons to meet the needs of these first and second grade students.

The purpose of these tests is to reduce remedial programs in schools and focus on what needs to be done in the early years. Effectiveness in strategies and success in

pinpointing what needs to be done will minimize cost and time. Much money is being spent on programs, on research about these programs, and on implementing these programs.

Another study done by Dorn and Allen (1995) examined the effectiveness of a program that used Reading Recovery and small group instruction with low achieving first graders. Nine schools and two hundred thirty one students were involved. The Reading Recovery teacher was able to serve twenty-one of the students. One hundred thirty eight children received one-to-one instruction while in the first grade. During the small group instruction, which included 93 children, 30% reached average levels of reading performance without requiring the Reading Recovery program. Fifty-six percent of the students were discontinued after only twenty-five lessons in Reading Recovery which is compared with students having sixty-five lessons for discontinued Reading Recovery only children. "The time for these students to be discontinued from Reading Recovery was cut by more than 60%" (Dorn & Allen, 1995, p. 24).

Considerations have to be made for the entire process of learning to read. This process could be due to early childhood development, language development, and home environment. Influences play a large role in the lives of students. The Reading Recovery program is intended to be an in-depth program to try make up for some of these reading deficiencies in the students. Research does support the positive aspects of the Reading Recovery program. It is an effective program when followed the way it should be followed.

Research done by Allington (1992) suggested that all children can learn to read and that students who begin falling behind continue to be behind each year. Students who

do fall behind never achieve full literacy and continue to struggle or do not learn as much as they are supposed to know. Allington's research recommended and supported the efforts that these programs are trying to make. His suggested programs are implemented in schools who have low-income children. The three intervention programs are Reading Recovery, Success For All, and Accelerated Schools. The first Reading Recovery program implemented in the United States was in the Columbus City Schools. "The results of the Columbus City Schools project indicated that over 80% of the children who participated in Reading Recovery successfully discontinued participation after less than a semester" (Allington, 1992, p. 246). The other 20% were either placed in another remedial reading program the following year, retained or referred for testing. This program is expensive but does demonstrate positive results.

The goal of Success For All is to have all students reading on grade level by the end of third grade. This also includes having no students retained or placed on an IEP for reading problems. The average reading achievement of the third graders was higher when compared with other schools but retention and special education were not eliminated.

The Accelerated Schools program is designed for at-risk children to be on grade level before going to middle school. According to Allington, there are over one hundred accelerated schools in sixteen states. These schools focus on a deadline for reaching at-risk students so they do not become further behind. The deadline is the key factor. Each school has a committee that involves teachers, parents, and administrators. They are involved in the planning of the program. This process for eliminating at-risk students is approximately six years. It is believed there is no quick answer or method and that educational reform takes time.

Another Reading Recovery program involved first grade students in the fall of 1990. The students were selected from a diagnostic survey which targeted the lowest first grade students. “The first grade students have been very successful due to the close teamwork of the Reading Recovery teacher, the first grade teacher, the support of the administration, and the involvement of the Reading Recovery parents” (Stebbins & Vliek, 1991, p. 33). This program uses a balanced reading program that includes writing. This includes shared reading, independent reading, reading aloud, and guided reading. The children dictate stories and the teacher does shared writing activities. Students also write in journals and do group stories. All of these activities are teaching the students to be independent by developing strategies that include predicting, self-monitoring, and confirming. These students are actively engaged in learning and are growing as an independent learner. One of these developing strategies is phonological awareness.

Phonological Awareness

What is Phonological Awareness?

Phonological awareness plays a major role in learning to read. There is a growing body of research in the acquisition of phonological awareness and its relation to literacy. Deficits in phonological awareness can be correlated to students with problems in decoding skills and comprehension. Two studies were done by Høien, Lundberg, Stanovich, and Bjaalid (1995) that involved preschool children who had no formal reading instruction. In the first study, children were given a variety of tests that would tap into phonological awareness. The tests included rhyme recognition, syllable counting, initial-phoneme matching, initial phoneme-deletion, phoneme blending, and phoneme counting.

In the second study, students were a year older and attending the first grade. Their reading achievement could also be tested. The data demonstrated that the phonemic factor was the most significant predictor. The rhyming factor made a small contribution and among all the tasks, the most powerful predictor was the phoneme identification. “In summary, it has been known for some time that phonological processes, broadly-defined, are related to important ways to reading acquisition and to reading disability” (Høien, Lundberg, Stanovich, & Bjaalid, 1995, p. 185).

Components of Phonological Awareness

There have been many studies conducted over phonological awareness and the methods to teach it. It is one of the most powerful predictors of learning to read. Research by McBride-Chang (1995) hypothesized that phonological awareness is composed of three individual components. These are IQ, verbal short-term memory, and speech perception. There were also four linguistic manipulation tasks that were to affect the difficulty. These tasks were administered to over one hundred, third and fourth grade students. There were four Subtests of the WISC-III to form an IQ construct. There were three tests of phonological awareness that consisted of phoneme deletion, position analysis, and phoneme segmentation. Also, there were four tasks that were designed to measure memory. Speech perception was also measured. According to McBride-Chang (1995), phonological awareness is composed of at least three components. These are general cognitive ability, verbal memory, and speech perception. All of these contribute to the phonological awareness construct. Each of the experiments influenced the item difficulties, which demonstrates the importance of speech perception and phonological

awareness.

A two-year longitudinal study was done on seventy-six students who were emergent readers (Rohl & Pratt, 1995). This study focused on the relationships between phonological awareness, verbal working memory, and the development of reading and spelling. Phonological awareness was measured by tests that included phonemic segmentation, onset and rime, and phoneme deletion. “Results of multiple regression analyses, with reading and spelling as a compound criterion variable, indicated that phonological awareness consistently predicted later reading and spelling even when both simple and backwards repetition were controlled” (Rohl & Pratt, 1995, p. 327). Even though these were predictions while measured in first grade of students to be in second grade, they were no longer observable when they were controlled. Phonological awareness was related to reading sight words and spelling. There is no evidence from this study that phonological awareness and verbal working memory are differentiated.

Other research was done by Byrne and Fielding Barnsley (1995) on children in first and second grades. This study began when the children were taught phonemic awareness in preschool and followed them through second grade. The trained children demonstrated gains in the areas of word reading and reading comprehension when followed three years later. In the control group, a disproportionate number of readers were dependent on sight word reading. In a follow up experiment, the preschool children were taught by their regular teacher and showed greater strides in phonemic awareness than the control group from the past experiment.

The limitations of this study is that the classroom teachers worked mostly from the manual while the others had inservice and some training. The differences cannot be

captured because there were no groups who were supposed to have intense training.

Also, there was no control of teachers so factors such as time on task and feedback from students cannot be measured. In conclusion, in order for literacy development to be useful, children need to be given close instruction and monitoring.

Phonological Awareness and the Correlation To Reading

The knowledge one must attain in learning to read is a complex process. There is a connection between letter sounds and sequencing of the letters. The letters turn into words and then sentences. Research has been done by Anderson, Holligan and Johnston (1996) on preschool children as well as adults in phoneme addition and deletion. One study was done to examine the extent to which preschool children are aware of the structure of spoken words and how to find out how they attain this knowledge. The study involved four year old children. These nonreaders were administered a series of tests to assess their knowledge of the alphabet, sight words, rhyming skill and phonemic awareness ability. According to Johnston, Anderson, and Holligan (1996), a fixed order regression showed that the ability to read and write the alphabet generally accounted for unique variance in phoneme awareness and product name reading ability over and above that accounted for by alphabet knowledge. The tests that were used in the study included word reading, nonword reading, letters of the alphabet, visual perceptual skills, rhyme generation, syllable and phoneme deletion, and phoneme segmentation. Their hypotheses was that preschool children who are nonreaders, possibly may gain insight into the structure of the spoken word and also start to make a connection between the sounds of spoken language and print. Overall, the results from the study showed many of the

preschool children demonstrated an explicit awareness of phonemes after they had learned the letters of the alphabet. This may suggest learning the alphabet teaches children how words are structured and this helps their reading ability. Children may need time after learning the alphabet to be able to relate it to print in order to know if learning the letters does give children insight into the phonemic structure of words.

Naming speed could be a predictor of reading skill which is independent from phonological awareness. If this is true, it would have a great impact on students who are at-risk readers. According to Johnston, Anderson and Holligan (1996) this has shown different conclusions on the impact of naming speed. Students who are poor readers make more errors and have a slower rate when naming lists that have numbers, colors, letters, and pictures.

According to McBride-Chang and Manis (1996), a study was done to measure speed naming, phonological awareness, and verbal intelligence with word reading. There were fifty-one poor readers and seventy-four good readers who were in the third and fourth grades. Results from the research indicated that for the poor readers, phonological awareness and speed naming were associated with word reading. However, there was no connection with verbal intelligence. Also, phonological awareness and verbal intelligence were associated with word reading for good readers. There was no association with naming speed. This suggests that age and reading skill affects the association of naming speed with word reading.

Research was conducted by Iversen and Tunmer (1993) to determine if the Reading Recovery program would be more beneficial if there was phonological instruction involved each day. The students were at-risk first graders. There were three groups of

thirty-two children each. The three groups were a modified Reading Recovery group, a standard Reading Recovery group, and a standard intervention group. The tests used in the study were the Diagnostic Survey, Dolch Word Recognition test, and the Phonological-processing test. There will be more detail about this study in another section.

Another study by Tunmer and Hoover (1993) was done on the possibility of the relationship between recoding skill and two factors. First, it is possible that beginning readers vary according to skill level and that programs to teach phonological awareness vary at the instructional level. Different patterns of possible relationships between phonological awareness and reading are skilled reading and reading instruction. Results of the study indicated that systematic instruction is more effective than incidental instruction. This is based on the at-risk readers. The direct instruction of phonological recoding skill is better than using writing activities to learn about the alphabet. Phonological awareness activities were beneficial to the Reading Recovery program for developing the knowledge of the alphabet. According to Tunmer and Hoover (1993):

The results of the path analysis suggest that phonological awareness is primarily responsible for the development of recoding ability, that phonological recoding ability is in turn primarily responsible for the development of context free word recognition ability, and that context free word recognition ability is in turn primarily responsible for the development of the ability to read connected text (p. 175).

Two studies examine the effects of different phonological training programs on phonemic analysis ability acquisition on kindergartners. In study one, the subjects were thirty-two preliterate children from low socioeconomic backgrounds in kindergarten classes in Lisbon. All the children were given a pretest on phonological awareness. The pre-and post-tests had nine subtests. The tests included rhyme detection, segmentation of sentences into words, syllable synthesis, syllable segmentation, phoneme deletion, phoneme synthesis, and phoneme segmentation. The students were given a seven week training course that met twice a week with sessions lasting for thirty minutes. "Portuguese speaking children initially with the same level of phonological awareness, attain different performance levels, depending both on having been submitted to metaphonological training or not, and on the linguistic units involved in training" (Cary & Verhaeghe, 1994, p. 267). This group, who had the training in phonemes, demonstrated progress.

In the second study, there were forty-seven preliterate children attending preschool in shanty towns in Lisbon. These students were given the same tests as the first group but had an eight-week program which met twice a week for thirty minutes. There were two training groups that involved either phonemes or syllables. Another group was trained on non-linguistic visual analysis. The results indicate that the processes involved in syllabic analysis of rhyme or speech manipulation cannot be applied to phonemic structure. Considerations that need to be pointed out are the difference in the students' age. The Scandinavian children were older. Some of the activities such as deletion and reversals are beyond the cognitive levels of these children. Also, the cultural background has to be

considered. Children who come from a low-socioeconomic background do benefit from phoneme analysis training.

Although children learn to speak during their first few years of life, many of them do not know how to control the units of language such as phonemes and syllables. Many of them are unable to manipulate the units such as deleting or counting. Thus, children find it difficult to be aware of the phonological structure.

A study by Lundberg, Frost, and Petersen (1988) was done in Denmark that consisted of 235 students from twelve different kindergarten classes. The control group had the same socioeconomic background. Both groups were given pretests that included many linguistic and metalinguistic tasks. The purpose was to discover the phonological structure of language. Both groups had training sessions for eight months. They received no reading instruction before this study. The long term effects were assessed in predicting a child's success in first and second grade.

The results indicated that the program had no effects on oral comprehension, vocabulary, or learning of letter names. However, it did affect metalinguistic skills such as rhyming tasks, word manipulation, and phoneme segmentation. "Apparently, phonemic awareness can be developed among preschool children outside the context of the acquisition of an alphabetic writing system" (Lundberg, Frost, & Peterson, 1988, p. 263). The training these students had in preschool in phonological awareness had a positive effect on reading and spelling that was apparent until the second grade.

There have been numerous studies and findings on the importance of early reading development and the influences of early success. Many studies have demonstrated the

importance of phonological awareness and the structure of words. It seems that students who have a low sensitivity to letters will not be as successful in learning to read. Students who do not reach a certain level of phonemic awareness are at risk for learning to read. “Furthermore, some studies have indicated that difficulties in linguistic abilities at higher levels may be related to specific reading disabilities” (Elbro, 1996, p. 454).

Some examples of phonological awareness activities include rhymes, categorizing words by single sounds or strings of sounds, finding words that contain certain sounds, blending phonemes, combining sounds into words, counting sounds, clapping sounds, phoneme deletion, omitting sounds from words, phoneme substitution, and phoneme reversal. All of these activities require the ability to shift from word meaning to the phonological form of words.

According to Clay (1993), students are not able to become aware of phonemes before the age of six because of the concrete operational thought level that they are in, however studies have shown that even a three-year old child is able to do some of the tasks. Children can sound out words and make corrections where they are needed.

Elbro (1996) investigated the link between expressive phonological impairments, literacy, and phonological awareness. There were thirty-one children in this study who had expressive phonological impairments and were compared with a control group. They were given three tests of phonological awareness. These tests involved one rime-matching and two onset-matching. Literacy skills were assessed and the children with the phonological impairments scored below their controls on literacy and phonological awareness. They were poor at reading and writing. It is possible, these problems could

stem from the failure to analyze syllables into smaller phonological units. It is important to look at the age of the phonological problems in relation to outcome in reading. These students who begin school with severe phonological impairments are at severe risk for reading and spelling problems.

“A distinctness hypothesis is advanced which proposes that children who become dyslexic have relatively poor access to the most distinct variants of spoken words” (Elbro, 1996, p. 477). It is not stated if this has to do with the accessibility or the phonological representations. The other hypothesis is that the phonological representations are restructured during the first five to eight years of learning language. These could possibly be new research items for the diagnosis of dyslexia in earlier stages.

There were many models in the 70s and 80s that described learning to read as a sequence of stages. Phonological awareness did play a role in the early stages. Students are able to learn a sight vocabulary but this was limited because there are only so many words one can learn by sight.

Phonological Awareness in Other Countries

There have been many studies done on phonological awareness in other countries. These studies play an important role in learning how these processes affect children learning a language other than English.

One study was done on children who were living in Hong Kong, Taiwan, and Britain. The purpose was to investigate if there was a relationship between phonological awareness and reading skill. These children were taught a script that is called Zhu-Yin-

Fu-Hao. They were taught this before learning the traditional Chinese characters. Many of these characters are phonetic and can be decoded according to the rules. There were 137 children in the study and they were tested on visual skills and reading ability. The test concluded that there are no significant differences in phonological awareness as a cause of reading difference. However, it was more difficult for the children from Britain to delete the initial phoneme from a word. The Hong Kong children did the opposite.

“Performance on a phoneme deletion test appeared to be strongly influenced by whether or not the child had learned an alphabetic script in the language in which they were being tested” (Hanley & Huang, 1994, p. 73).

Another study by Bryant and Suk-Han Ho (1997) on Chinese children was initiated to determine if they learned to read a nonalphabetic script (Chinese) differently than children who learn an alphabetic script. Several features of the Chinese language have to be understood. The basic part of the language is the syllable. Some syllables have different tones that can mean different words. This language has characters which can be combined to form over 3,000 words. The study involved 35 children. This was for two weeks of testing. Children in grades one and two and were given six tests which included the Raven’s Standard Progressive Matrices, Chinese Word Reading, Chinese ideophonetic compound reading, Chinese pseudocharacter reading, and Tasks of phonological awareness.

The results showed that Chinese children do rely on phonetic skills for reading. “The phonetic components of regular Chinese ideophonetic compounds provide more reliable sound cues than those of irregular ones” (Bryant, & Suk-Han Ho, 1997, p. 287).

This is an important finding but there may be other factors such as visual, language, and cognitive skills that affect the process. These tasks do not provide information on reading a text that contains Chinese characters. More research is needed.

There are few studies on the topic of phonological awareness in other languages. There is a need for such studies especially for children who speak a different language and who are bilingual. The acquisition of literacy is a field where there is much needed research.

Research was done on 30 children. These children were given phonological awareness tasks in Panjabi and English. All the children were fluent in both languages. “In both languages children were significantly better at tasks which involved manipulating or recognizing sounds in words, rather than syllables” (Martin & Stuart-Smith, 1997, p. 185). It was also indicated that the children could isolate the sounds better in the Panjabi language than they could English. It is recommended that for literacy skills to be successful, they must be taught to bilingual children in both languages.

Other important research was done with Spanish children to determine if some of the linguistic structures of phonological awareness in English also apply to the Spanish language. Attention was given to the ability to isolate initial consonants, articulation properties, stressed syllables in words, the length of a word, and initial clusters. Findings suggested that there are similarities with the clusters. It also found that the Spanish children could more easily pronounce a word regardless of the stressed syllable. “Teachers in the Spanish language should introduce at the first stage short words, words without initial clusters and words with initial clusters” (Gonzalez & Garcia, 1995, p. 199).

There is such great interest in the research of phonological awareness and reading that there has been research in spelling and learning to read. A study by Cardoso-Martins (1995) involved 105 Portuguese kindergartners. Spelling, reading, and phonological awareness was assessed. These children were given phonological awareness tasks and knowledge about print tasks. The phoneme segmentation tasks did predict their reading and spelling ability. “These results strongly suggest that phonemic awareness is the single most important level of phonological awareness for literacy acquisition in Portuguese” (Cardoso-Martins, 1995, p. 826). Phonemic awareness does play an important role in literacy in the Portuguese language. It is suggested that because of the large number of multisyllabic words in Portuguese, and the simplicity of the structure, these might contribute to make the “syllable” of vital importance.

Summary

There is an abundance of research in the field of reading, including many studies in phonological awareness, Reading Recovery, and strategies to increase the knowledge of teachers so they might be able to better serve their students.

Many of these studies have helped educators to better understand the reading process in relation to comprehension, fluency, and cognition. Research has influenced our way of thinking in terms of how a person learns to read and how to help those who are at-risk or have difficulties in this process. Reading Recovery programs, along with Marie Clay, have greatly influenced our way of thinking and our way of teaching. This method has given much insight into the thought processes of children and how to better serve their

needs.

The research of phonological awareness has also made a profound impact on curriculum and teaching. Phonological awareness, along with Reading Recovery, and strategies to increase our knowledge to better serve our students each play an important role and affect the reading skills of children. This is the intent and the purpose of this research.

CHAPTER III

METHOD AND PROCEDURES

Introduction

The purpose of this study was to research and investigate the methods of a modified Reading Recovery program in a second grade Title I classroom. Also investigated were how these methods contributed to reading skill and how they can be successful. This study involved second grade students and it was determined if there were any changes or growth when students use these processes. According to Rhodes and Shanklin (1993):

In recent years, educators have come to understand that comprehension is a mental process of constructing rather than extracting meaning from text; that comprehension is a personal understanding of text; and that comprehension, even when it takes place privately, is a social process (p. 211).

This chapter will discuss the subjects in the study for the research. It will also discuss the instruments that were used to measure vocabulary, phonological awareness, listening comprehension, speed and accuracy, and decoding skills. The methods that were used will also be discussed along with the design of the research, the procedures, and the statistical analysis. Also presented will be the methods and their assumptions, the limitations of the study, and the research hypotheses.

Subjects

The subjects who participated in this study were approximately 63 second grade students who attended public elementary schools in rural school districts in the south-central United States. The students were divided into two groups. The experimental group were the Title I reading class. These students were given the Gates MacGinitie Reading Test in the spring of 1998 to determine if they qualified for a remedial reading class. The students who qualified started in the fall of 1998. It is possible that some of the children were retained or identified as learning disabled. All of these students were referred for Title I reading by their classroom teacher.

The other group of students was the control group. The students were in the second grade. There was no contact with them except for the testing procedures. All of their reading instruction came from the classroom. They may or may not have received any additional outside reading assistance.

Measures

A battery of tests was administered to each individual in this study: The WOODCOCK LANGUAGE PROFICIENCY BATTERY-REVISED, (WLPB-R), (1995) is a series of tests designed to evaluate a student's language and reading skills. The LISTENING COMPREHENSION portion is administered orally. The examiner reads a sentence, leaving out the last word. There are 38 sentences. The student then answers with a word that makes sense and completes the sentence. Each student is given a raw score, age equivalent and grade equivalent.

The WORD-ATTACK sub-test of the WLPB-R is a list of nonsense words such as (rox and ib) developed to assess the student's decoding ability. The student is given a list of nonsense words and asked to sound them out. There are 30 words. Each student is given a raw score, age equivalent, and grade equivalent. The test is timed.

The last sub-test administered from the WLPB-R is the READING VOCABULARY SYNONYMS and the READING VOCABULARY ANTONYMS. In this subtest, the child reads a list of words in isolation and gives a synonym (a word that means the same) for that word. The child then reads another list of words in isolation and gives an antonym (a word that means the opposite) for those words. The Synonym test has 34 items. The Antonyms has 35 items. Each student receives a raw score, an age equivalent, and grade equivalent.

The next test that was administered was the SPEED AND ACCURACY test. In this test, the student reads three lists of words. The words are in separate lists. The lists are Function Words, Content Words, Non Words. The student reads each list as fast as he or she can without making any mistakes. Errors and the time are recorded.

Content and Function Words

Each student was asked to orally read a list of Content words and Function words. Each student was timed with a stop-watch and was recorded. Each list had 40 words. These words contained sight words and the most frequently used words.

Nonwords

Each student read the list of nonwords. These words had phonetic rules but were nonsense words. There were 40 words in this list. This was used to assess phonological awareness and decoding skills.

The next test given was the TEST OF PHONOLOGICAL AWARENESS (TOPA) developed by Joseph K. Torgesen and Brian R. Bryant in 1994. This is a test of receptive phonology and the examiner must speak clearly. The test can be administered in about 15–20 minutes. It can be given either individually or in small groups. However, small group testing is recommended. The TOPA contains two sub-tests. The first is Ending Sound–Same, and the second is Ending Sound–Different. The test was designed to identify children who are experiencing a delay in development in this area. A score on the TOPA below the 15th percentile suggests a strong likelihood that the child’s reading problems are the result of difficulties in processing the phonological features of words or becoming aware of the phonological structure of words. Each student was given a raw score, and an NCE.

The students also read books at their instructional level. The students read these books each day. They practiced reading them to increase fluency and reading rate. Students had a time each day to read these books independently and orally. A record was kept of the number of books that each student read. The books that the students used were from the Wright Group. These books begin at the kindergarten level and proceed through the second grade.

Research Design

The first goal of this research was to determine if a modified Reading Recovery program for second grade students can be successful. The second goal was to determine if phonological awareness and some of the components of the Reading Recovery program do increase vocabulary and phonological awareness. All of these factors were assessed to determine if their contribution affected listening comprehension. The final goal of this research was to determine how these factors impacted Title I second grade students as opposed to a traditional second grade classroom.

Procedures

The students who participated in this study were volunteers. Permission for the research was obtained via a Parental Consent Form (see Appendix), which included a brief description of the study. The results of the study were confidential. No names were revealed. This form was also given to the building principal. Volunteer classrooms were used for the study. These teachers were willing to participate on a voluntary basis. The volunteer students were not forced to do any testing or tasks and could refuse at any time. The principal was given all forms including the permission forms and the description of all the tests and procedures that were involved.

The classroom teachers who were involved in the research were given the Informed Consent Form, which explained the study. The teachers were given the option to refuse. Each student was informed of the intent of the research and their rights in this research.

The teachers that were involved and the school principal were made aware of all the testing that took place. They were informed of when the testing took place and where. Also, the parents were notified of all testing procedures and the dates.

All the tests were given to all students in the research regardless of their academic ability, retention or other learning disabilities. The students were given the tests in random order. The testing sessions were on five different days. The testing was for approximately 30 to 40 minutes for each student. Some of the tests were taped and timed. The total time for testing was less than two hours.

When the testing was completed, all of the tests were scored. The teachers received the scores of the students if they requested them. This was not documented in any of the students' records at the school or in the classroom teachers' files.

Data Analysis

This research determined the contribution of a modified Reading Recovery program at the second grade level. There is interest in determining the extent of these processes and how they affect reading skill.

Methodological Assumptions

The following methodological assumptions were made:

1. The modification of a Reading Recovery program can be successful in a second grade classroom.

2. Phonological awareness does contribute to increased listening comprehension with second grade students.
3. Oral reading each day at the independent and instructional levels of second grade students will increase fluency and vocabulary.
4. The number of students used in this research will be sufficient to test the hypotheses.
5. The processes involved in this research can be isolated and can be measured independently.
6. The tests of Speed and Accuracy, the Listening Comprehension test, the Word-Attack test, the Reading Vocabulary Synonyms and Reading Vocabulary Antonyms test, and the TOPA, Test of Phonological Awareness will each be isolated and measured at the second grade level.
7. The subjects in the second grade will each make a contribution to the research in reading and processing skills and abilities will be detected.
8. Important findings will be revealed on the Reading Recovery in a second grade classroom since it is not being used in the traditional way in a first grade classroom.
9. It will also be assumed that the effectiveness of reading instruction will be reviewed and strategies to use to enhance reading skills will be identified.

Limitations of the Study

The limitations of the study were to accurately measure the isolated skills in reading with second grade students. These students were in a developmental reading class

so considerations were made. This included time spent on reading, the level of instruction, and the variety of students in the program. Instruction and tasks were taken at a slower pace. There was more interaction between teacher and student and very little time spent on worksheets. Consideration was also made for the time spent in the Title I class. Students only had 30 minutes each day.

Research Hypothesis

The following are the hypotheses for this study:

Hypotheses 1: These students will be compared with other students in the second grade level and will demonstrate higher listening comprehension skills and will show growth with fluency, sight word recognition and phonological awareness.

Hypotheses 2: The contribution of graphophonics, syntactic clues, semantics, and oral reading each day will be a major influence in the success of the students in listening comprehension and vocabulary skills.

CHAPTER IV

RESULTS

Introduction

In this chapter, statistical analysis was used to test the hypothesis $PP + MRRP + PA + WR = \text{growth in reading}$ so that the student will or will not be closer to reading on grade level. The main purpose of this study was designed to investigate how a modified Reading Recovery Program along with phonemic awareness contributes to literacy. This refers to a student reading on grade level by the end of the program. This program would demonstrate growth in word attack skills, listening comprehension, language skills, reading skills, and speed and accuracy.

Two hypotheses were made. First, it was hypothesized that the students in the experimental group, as compared with the control group in the second grade level, will demonstrate higher listening comprehension skills and will show growth with fluency, sight word recognition, and phonemic awareness. Second, it was hypothesized that by using graphophonics, syntactic clues, semantics, and oral reading each day will have a major impact on the success of the students in vocabulary and listening comprehension. The data obtained was completed by using a Single Classification Analysis of Covariance and a Repeated T-Test for Gains. There were a series of comparisons that were performed. This chapter presents the results from these analyses and discusses the interpretation made by the hypotheses.

Data Analysis

Table 1 shows the number of students in the treatment group and the control group. The groups are also divided by gender. The age range is also presented.

Table 1

Age and Gender Information

	Number of students	Male	Female	7 yr. Olds	8 yr. Olds
Treatment Group	28	17	11	11	17
Control Group	33	18	15	13	20

Hypothesis 1 stated that the method used with the experimental group would work better than the control group method. The method used with the experimental group would show a significant difference in regard to listening comprehension skills, fluency, sight word recognition and phonological awareness. Hypotheses 2 stated that the experimental group would show a significant increase while in the Modified Reading Recovery Program. In order to determine if any significant differences existed in the groups, an analysis of variance (ANCOVA) was performed, as shown in Table 2.

Results

Table 2

Correlated T-Test for the Control Group

Variable	Mean	SD	Number of Pairs	Corr.	2-tail Sig.	Difference in Means	T	DF	1-tail Sig.
PRELC	18.67	5.00	33	0.117	0.517	1.94	1.69	32	.05
POSTLC	20.61	4.90							
PREWA	8.79	6.69	33	0.865	.0000	3.21	5.01	32	.00
POSTWA	12.000	7.29							
PREWLBR	16.58	6.67	33	0.729	.0000	1.39	1.68	32	.05
POSTWLBR	17.97	6.28							
PRETOPA	17.33	3.34	33	0.564	0.001	.94	1.84	32	.04
POSTTOPA	18.27	2.85							

There are two research questions that can be utilized to determine the impact that the reading intervention (Title I Reading Program) had on the reading abilities of the students. The first hypothesis is that the intervention improved the students' reading ability as assessed by their performance on the measures. This can be ascertained by running a correlated T-Test between the pre-test and the post-test to see if there has been a significant increase in the scores. This was also done for the control group to ascertain the degree to which the conventional teaching methods increased the students' scores.

A correlated T-Test tests for the differences in two sets of data. There are two different models that can be used. There is a correlated T-Test and an independent T-Test. In a correlated T-Test (matched groups), there are two sets of measurements on one group of subjects. The null hypothesis is that there is no difference between the population means represented by the two sets of data. The T-value equals the statistic for calculating the difference. The higher the better, yet it is the magnitude and the statistical difference that are important. A 1-tail significance is used because the scores should not increase, so it only looks at the significant increases. The correlation is just that, a measure of how well scores on the first test predicted scores on the second test.

The second research question pertains to whether the reading intervention worked better than the existing methods in increasing a students reading ability as ascertained by the four test scores. This was accomplished by running an analysis of covariance between the experimental and control groups, while controlling for the effects of the pre-test. This statistical manipulation takes the scores on the pre-test into account so as to eliminate the initial differences between the two groups. They can then be compared as if they were equal groups before the treatment.

An Analysis of Covariance (ANCOVA) is a method of statistically controlling for initial group differences. The groups are in effect equalized. This allows the test to be completed as if the groups were initially equal on control variables. A modified analysis of variance was used to test adjusted mean score differences. The null hypothesis is that there is no difference in the adjusted means for the data when the initial differences are controlled for by the pre-test. The adjusted means are the means for the control and

treatment group when the initial differences are controlled by the pre-test. The F-value is similar to the T-value in its interpretation. The larger the better, yet what is important is the significance. The significance level must be at .05 or below in order to reject the null hypothesis. Once significant differences are shown, look at which score is higher in order to determine if one method worked better than the other. The results are presented in Table 2. The Listening Comprehension Test, Word Attack Test, and the WLPB-R were significantly higher for the treatment group. The control group performed significantly higher on the TOPA Test.

The results of the correlated T-Test between the pre-test and post-test for the control group shows that there was a significant increase in the scores for three of the four measures. The Listening Comprehension pre-test had a mean score of 18.66 and a standard deviation of 4.99. The post-test scores increased to a mean of 20.61 with a standard deviation of 4.89. These scores had a correlation of .117, but this was not significant. The T-Test yielded a mean difference of 1.93 and T-value of 1.69, which had a one-tailed significance of .05. This shows that the mean increase in the scores of 1.93 was large enough to be considered a significant increase.

The Word Attack Test had a pre-test mean of 8.79 and a standard deviation of 6.69. The post-test increased to 12.00 with a standard deviation of 7.29. These scores had a correlation of .865 and were significant at the .001 level. The mean increase of 3.21 on the post-test yielded a T-value of 5.01, which was significant at the .001 level. This showed that there was a significant increase in the post-test scores.

The WLPB-R measure had a pre-test mean of 16.58 and a standard deviation of 6.66. The post-test increased to a mean of 17.97 with a standard deviation of 6.28. These test showed a correlation of .73 that was significant at the .001 level. The increase from the pre-test to the post-test was 1.39. The yielded a T-value of 1.68, which was not significant at the .05 level. This increase is insufficient to reject the null hypothesis that there was no difference in the scores between the pre-test and post-test.

The Test of Phonological Awareness (TOPA) had a pre-test mean of 17.33 and a standard deviation of 3.34. This increased on the post-test to a mean of 18.27 and a standard deviation of 2.85. These scores had a correlation of .564 that was significant at the .001 level. The increase in the mean from the pre-test to the post-test was .94. This yielded a T-value of 1.84, which was significant at the .05 level indicating a significant increase in the scores.

The results for the correlated T-Test for the treatment group is presented in Table 3. The results showed that there was a significant increase in the post-test scores over the pre-test scores on three of the four measures.

Table 3

Correlated T-Tests for the Treatment Group

Variable	Mean	SD	Number of Pairs	Corr.	2-tail Sig.	Difference in Means	T	DF	1-tail sig.
PRELC	19.07	3.72	28	.574	.001	3.57	-5.07	27	.00
POSTLC	22.64	4.28							
PREWA	3.00	2.07	28	.475	.011	5.07	-2.21	27	.02
POSTWA	8.07	12.99							
PREWLBR	15.07	14.20	28	.630	.000	11.97	-5.49	27	.00
POSTWLBR	27.04	12.33							
PRETOPA	15.00	10.25	28	.107	.587	-.36	.17	27	.43
POSTTOPA	14.64	4.99							

The scores on the Listening Comprehension measure had a pre-test mean of 19.07 and a standard deviation of 3.72. The post-test had a mean of 22.64 and a standard deviation of 4.28. The correlation between the two scores was .574 and was significant at the .001 level. The T-Test yielded a T-value of 5.07, which was significant at the .001 level. This indicates that there was a significant increase in the scores.

The Word Attack pre-test had a mean of 3.00 and a standard deviation of 2.07. The post-test increased to a mean of 8.07 with a standard deviation of 12.99. These scores had a correlation of .475 and were significant at the .05 level. The T-Test produced a mean difference of 5.07 with a T-value of 2.21 that was significant at the .05 level.

The WLPB-R measure had a pre-test mean of 15.07 and a standard deviation of 14.20. The post-test mean increased to 27.04 with a standard deviation of 12.33. These scores were correlated .630, which was significant at the .001 level. The mean difference between the scores was 11.96, which produced a T-value of 5.49 that was significant at the .001 level.

The Test of Phonological Awareness (TOPA) had a pre-test mean of 15.00 and a standard deviation of 10.245. This fell to a mean of 14.64 with a standard deviation of 4.9 on the post-test. These tests had a correlation of .107 and were not significant. The difference in the mean scores was .36, which produced a T-value of .17 that was not significant.

An analysis of covariance was performed as a method of statistically controlling for any differences that may have existed between the two groups in regards to their pre-test scores. This is shown in Table 4. This adjusts the means of each group to control any initial differences that may exist between the treatment and control group so that their gain scores may be interpreted as if the two were equal on the pre-test. This allows the two groups to be compared on their post-test scores in order to determine if one group performed significantly better than the other.

Table 4

Analysis of Covariance Controlled By Pre-Test Scores

Test	Source of Variation	Sum of Squares	DF	Adjusted		F	Sig. of F
				Control	Treatment		
Listen Comp.	Main Effects	55.73	1	20.66	22.58	2.78	0.101
Word Attack	Main Effects	66.30	1	9.09	11.50	0.87	0.354
WLPB-R	Main Effects	1486.93	1	17.57	27.40	27.91	.000
TOPA	Main Effects	170.28	1	18.17	14.77	10.96	0.002

The results of the analysis of covariance showed that for two of the four measures, there was a significant difference between the groups. The Listening Comprehension measure had an adjusted mean of 20.66 for the control group and 22.58 for the treatment group. This gives an F value of 2.78, but was not sufficient to reject the null hypothesis.

The Word Attack measure had an adjusted mean of 9.09 for the control and 11.50 for the treatment group. This gives an F value of .87, but was insufficient to reject the null hypothesis.

The WLPB-R measure had an adjusted mean of 17.57 for the control group and 27.40 for the treatment group. This had an F value of 27.91 that was significant at the .001 level. This indicates that there was a significant difference in the scores between the control group and experimental group when the pre-test scores are controlled for. In this case, the increase in the scores from the pre-test to the post-test for the experimental group were significantly higher than that of the control group.

The Test of Phonological Awareness (TOPA) measure had an adjusted mean of 18.17 for the control group and 14.77 for the treatment group. This produced an F value of 10.96 that was significant at the .01 level. This case showed significant differences in the performance on the post-test, but in this case, the control group increased significantly more than the experimental group.

The Test of Speed and Accuracy consisted of three sections: Function Words, Content Words, and Non-words. Each of these three sections contained scores for the oral reading time, number of errors, score of speed, and reading score. The reading time and number of errors were numeric values, but the score of speed and reading score were keyed as either being below average, average, or above average.

The results of the Function Words score of speed as shown in Table 5 indicates that for the treatment group the scores decreased from 79 seconds to 76 seconds. This decrease of 3 seconds resulted in a T-value of .339 that was not significant. The control group decreased their times from 60 seconds to 45 seconds. This 15 second decrease in

Table 5

Reading Time Function Words (in sec.)

	Sept	Feb	Difference	T-Value	Sig.
Treatment	79	76	-3	0.339	0.738
Control	60	45	-15	2.717	0.011

their reading time produced a T-value of 2.717 which was significant at the .05 level.

These results show that the treatment had little or no effect on the treatment group, but the control group improved significantly.

The average number of errors on the Function Words section for the treatment group decreased from 31 in September to 18 in February. The results are shown in Table 6. This 13 point improvement produced a T-value of 8.256 that was significant at the .001 level. The Control group decreased the number of errors from 13 on the September test to 7 on the February test. This improvement of six points resulted in a T-value of 4.680, which was significant at the .001 level. Both the treatment and the control group significantly lowered the number of errors on the Function Words portion of the test.

The measures of Score of Speed and Reading score are represented by the number of cases that were rated as being above average, average, or below average instead of being in numerical form.

Table 6

Function Word Errors

	Sept	Feb	Difference	T-Value	Sig.
Treatment	31	18	-13	8.256	0.001
Control	13	7	-6	4.680	0.001

The results of the Score of Speed test for the Function Words is shown in Table 7. The section of the test showed that the treatment group decreased the number of below

average performers by 18 percent. This was coupled with an increase in the number of cases rated as average from 68% to 89 %. This shows a substantial increase in the performance of the students on the test. The Control group showed a substantial increase in their scores from those as rated as above average. The Control group increased the amount of cases rated as above average from 9% to 39%. This was coupled with only a marginal and insignificant regression of a 3% increase in those rated as below average. In both groups there was improvement. The Treatment group appeared to move below average scores into the average range, while the Control group moved average scores into the above average range.

Table 7

Function Words Score of Speed

	Above	Average	Below		Above		Below
Treatment	Average		Average	Control	Average	Average	Average
Sept	1 (4%)	19 (68%)	8 (29%)	Sept	3 (9%)	28 (85%)	2 (6%)
Feb	0 (0%)	25 (89%)	3 (11%)	Feb	13 (39%)	17 (52%)	3 (9%)

The ratings for the Function Words Reading Scores showed that the Treatment group initially had nearly everyone (96%) rated as below average. The February test showed that 18% were rated as average or above. This is not a giant increase, but it is an improvement in 14 % of the cases. The Control group showed a substantial increase in their ratings because initially 52% were rated as below average, but on the second test,

this fell to 24%. The interesting aspect of these scores is that the number of average scores remained about the same while the number of scores of above average increased dramatically. It would appear that the Control groups' scores increased from below average on the first test and above average on the second test. This is a fairly dramatic increase. The results are shown in Table 8.

Table 8

Function Words Reading Score

	Above		Below			Above		Below	
Treatment	Average	Average	Average	Average	Control	Average	Average	Average	Average
Sept	0 (0%)	1 (4%)	27 (96%)		Sept	14 (42%)	2 (6%)	17 (52%)	
Feb	3 (11%)	2 (7%)	23 (82%)		Feb	23 (70%)	2 (6%)	8 (24%)	

The Results of the Content Words portion of the Speed and Accuracy Test showed that the treatment group decreased their reading time from 63 seconds in the September test to 46 seconds in the February test. The 17 second difference produced a T-value of 3.834 that was significant at the .001 level. The control group decreased their time from 44 seconds in September to 30 seconds in February. The decrease of 14 seconds produced a T-value of 5.594, which was significant at the .001 level. In this case, both the treatment group and the Control group significantly decreased their reading time. The results are shown in Table 9.

Table 9

Reading Time Content Words (in sec.)

	Sept	Feb	Difference	T-Value	Sig.
Treatment	63	46	-17	3.834	0.001
Control	44	30	-14	5.594	0.001

The results for this test is shown in Table 10. The number of errors on the Content Words section of the test decreased for the Treatment group from 17 in September to 9 in February. The 8 point improvement resulted in a T-value of 5.438 which was significant at the .001 level. The control group decreased the number of errors from 5 to 2.

Table 10

Content Word Errors

	Sept	Feb	Difference	T-Value	Sig.
Treatment	17	9	-8	5.483	0.001
Control	5	2	-3	4.476	0.001

This 3-point reduction in the average number of errors produced a T-value of 4.476, which was significant at the .001 level. The average number of errors on the Content Words section of the test decreased significantly for both the Treatment group and the Control Group.

The results for this test are shown in Table 11. The Content Words Score of Speed for the Treatment group showed that 36% of the September scores were rated as below average. This decreased on the February test to only 11%, while those rated as average and above average increased 22%. The control group showed that 24% of the score increased from the September to the February test. This is very similar to the results of the Treatment group.

Table 11

Content Words Score of Speed

	Above		Below		Above		Below	
Treatment	Average	Average	Average	Control	Average	Average	Average	
Sept	0 (0%)	18 (64%)	10 (36%)	Sept	1 (3%)	25 (76%)	7 (21%)	
Feb	1 (4%)	24 (86%)	3 (11%)	Feb	3 (9%)	29 (88%)	1 (3%)	

The Content Words Reading Scores for the treatment group showed a remarkable increase in their ratings. The results are shown in Table 12. The September scores had 71% rated as below average. The February scores showed 50% less of the scores were considered below average, while the above average category jumped 39%. The Control group also showed improvement in their scores, but not as substantial as the treatment group. The number of average and below average scores decreased 27% while the number of above average increased the 26%. Both the groups showed substantial gains on this measure.

Table 12

Content Words Reading Score

	Above		Below		Above		Below	
Treatment	Average	Average	Average	Control	Average	Average	Average	
Sept	3(11%)	5 (18%)	20 (71%)	Sept	19 (58%)	6 (18%)	8 (24%)	
Feb	14 (50%)	7 (25%)	7 (25%)	Feb	28 (84%)	3 (9%)	2 (6%)	

The results of this test are shown in Table 13. The reading times for the Treatment group on the Non Words section of the test increased from 69 seconds on the September test to 72 seconds on the February Test.

Table 13

Non Words Reading Time (in sec.)

	Sept	Feb	Difference	T-Value	Sig.
Treatment	69	72	3	0.425	0.674
Control	73	74	1	0.177	0.86

This 3 point increase produced a T-value of .425 that was not significant. The Control group increased from 73 seconds to 74 seconds. This resulted in a T-value of .177 that was not significant. In both of the groups, there was an increase in the reading time on the second administration of the test. The results were not significant however, and it can be

assumed that neither the instruction given to the Control group, nor the instruction given to the Treatment group had any effect either positively or negatively on the reading times.

The number of errors on the Non Words section of the test decreased for the treatment group from 38 on the September test to 32 on the February test. The results are shown in Table 14. This decrease of 6 points resulted in a T-value of 3.761 that was significant at the .001 level. The Control group decreased from 24 errors on the September test to 20 on the February test. This 4 point improvement resulted in a T-value of 4.252 that was significant at the .001 level. In this case, both the Treatment group and the Control group significantly decreased their number of errors on the Non Words portion of the test.

Table 14

Non Words Errors

	Sept	Feb	Difference	T-value	Sig.
Treatment	38	32	-6	3.761	0.001
Control	24	20	-4	4.252	0

The Non Words Score of Speed for the treatment group showed marginal gains. The results are shown in Table 15. The number of above average ratings stayed the same, but the number of average ratings increased 15%. This was precipitated by the 14% decrease in the number of cases listed as below average. The Control group showed an increase in the number of cases rated as above average. The September test had 100% of

the cases rated as average or below (97% average). This increased on the February test to having 100% of the cases listed as average or above (94% above). This is an increase for the control group as it was an across the board increase in nearly every score.

Table 15

Non Words Score of Speed

Treatment	Above		Below		Control	Above		Below	
	Average	Average	Average	Average		Average	Average	Average	Average
Sept	5 (18%)	18 (64%)	5 (18%)		Sept	0 (0%)	32 (97%)	1 (3%)	
Feb	5 (18%)	22 (79%)	1 (4%)		Feb	31 (94%)	2 (6%)	0 (0%)	

The Non Words Reading Score showed that the number of cases rated as below average increased 22%. The results are shown in Table 16. This is a disturbing case because it gives the appearance that Treatment that they received actually lowered their scores on this portion of the test. The Control group remained virtually unchanged. This indicates that neither the Treatment or Control did much to effect the scores on this portion of the test.

Table 16

Non Words Reading Score

	Above		Below			Above		Below	
Treatment	Average	Average	Average	Control	Average	Average	Average	Average	Average
Sept	3 (11%)	5 (18%)	20 (71%)	Sept	7 (21%)	9 (27%)	17 (52%)		
Feb	0 (0%)	2 (7%)	26 (93%)	Feb	8 (24%)	8 (24%)	17 (52%)		

The tests used in this study have been used by many people to assess reading ability and to measure areas such as listening comprehension, sight word recognition, decoding skills and phonological awareness. They have not been used in a second grade Title I Program. The purpose was to determine if the Title I reading students would show more growth when compared with a regular second grade teaching methods.

The results of the Comparison of Groups are shown in Table 17. Analysis of the data revealed that the control group had a significant increase in the scores for three of the four measures between the pre-test and the post-test. The Listening Comprehension measure had a significant increase. The Word Attack measure showed a significant increase. The WLPB-R was insufficient to reject the null hypothesis and there was no differences in the scores. The Test of Phonological Awareness indicated a significant increase in the scores.

Table 17

Comparison of Groups

Test	Control	Treatment	Which Did Better
Listening Comprehension	<u>X</u>	<u>X</u>	----
Word Attack	<u>X</u>	<u>X</u>	----
WLPB-R		<u>X</u>	<u>Treatment</u>
TOPA	<u>X</u>		<u>Control</u>

The correlated T-Test for the treatment group showed that the Listening Comprehension measure had a significant increase in the scores. The Word Attack measure demonstrated a significant increase. The WLPB-R measure showed a significant increase. The WLPB-R showed a significant increase. However, the Test of Phonological Awareness did not produce a significant increase.

The analysis of covariance showed that two of the four measures had a significant difference between the groups. The Listening Comprehension measure was not sufficient to reject the null hypothesis. The Word Attack measure was not insufficient to reject the null hypothesis. The treatment group was significantly higher than the control group for the WLPB-R measure. The control group increased significantly more than the experimental group.

CHAPTER V

SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS

This chapter will present a summary of the study, conclusions, recommendations for further research and implications of the study.

Summary

Learning to read is seen as the basis for most of the success people achieve in school, work, and in their daily life. It is the core of many complicated roads that people must encounter each day as they continue through this process of life. Learning to read takes each child on a path through his or her daily school life. People who struggle with reading generate much difficulty with other subjects and it lowers self-esteem, creates anxiety, and defers the learning process.

There has been much emphasis on the process of learning to read all around the world. There has also been an enormous amount of funds spent on remedial programs, retention and intervention services. Many of these children struggle each day in their academic career and still they continue to work with great difficulty. Some do overcome their problems while some do not. Researchers still continue to look for ways of improvement in order to help these children who need assistance and guidance in the area of reading. There are so many reading programs and services provided in our schools, we must find out which ones are most beneficial and how children learn the best.

Recently, there has been much emphasis on isolating phonemes and recognizing these basic units of speech. This process is called phonological awareness. There have been studies done using these different types of teaching activities. This was seen as a predictor of who will become a good reader and who wouldn't. Many of the tests that were conducted in this study required isolating sounds, manipulating phonemes, and blending phonemes.

There has been research conducted on various intervention programs and the majority of them consist of the same ideas and methods. Many of them use a lot of phonological awareness activities, writing activities, letter and sound relationships and oral reading. Most of these programs consist of small groups that meet for thirty minutes each day. Benefits of these types of programs is that there are generally no more than six students at a time, students are able to participate in shared reading activities with peers who are generally about the same reading level, and students do receive more interaction and instruction with the teacher.

The problem with some of these programs is that time wasted in the hall as children are walking to and from class; sometimes there is a large gap in the abilities of the students and therefore it makes it more difficult for the teacher to be constantly changing his or her methods, and when there are large groups it is difficult for the teacher to always listen to all of the students read. There needs to be more studies on these types of intervention programs beyond the first grade level.

It is difficult to say how much phonological awareness is needed to become a fluent reader. It is known that it is a basis for success yet comprehension is a goal also.

This complex process is still in the development stage and the answers are still not there. Phonological awareness activities, oral reading, writing, and decoding skills do influence this process but there is still no clear evidence of how much they influence a successful reader.

This research was done to try and determine the amount of what these influences have on a student becoming successful in reading. It must be learned to what degree these influences can be found in independent readers who achieve grade level.

A battery of tests was done in this research. A T-Test was done between the pre-test and the post-test for the control group and the treatment group. The control group showed that there were significant increases in the scores for three of the four measures. These included the Word Attack, Listening Comprehension, WLBR-Synonyms and Antonyms, The Test of Phonological Awareness, and Speed and Accuracy.

Hypothesis 1 was rejected in three parts of it and one part was not rejected. The T-Test for the control group did measure a significant increase in the scores of the Listening Comprehension Test, the Word Attack Test and the Test of Phonological Awareness. However, the vocabulary test had an increase but was insufficient to reject the null hypothesis.

The results of the correlated T-Test for the treatment group also showed there was a significant increase in the post-test scores over the pre-test scores on three of the four tests. The Listening Comprehension Test, the Word Attack Test, and the vocabulary test was significant. However, the Test of Phonological Awareness was not significant.

An analysis of covariance was performed on each group. The results showed that on two of the four measures, there was a significant difference between the groups. The Listening Comprehension was not sufficient to reject the null hypothesis. The Word Attack test was insufficient to reject the null hypothesis. The WLPB-R Test was significant. The increase in scores from the pre-test to the post-test for the experimental group were significantly higher than the control group. The Test of Phonological Awareness showed that the T-Value was not significant. The control group performed significantly higher than the treatment group.

Hypothesis 2 did reject the null hypothesis on parts of the test, while the increase was insufficient to reject the null hypothesis on the other parts of the tests. The Speed and Accuracy Test has three parts. These are the Function Words, Content Words, Non Words. The Function Word Test (in seconds) showed that the treatment group improved significantly. The average number of errors in the Function Word Test proved that the treatment group and the control group significantly lowered the number of errors on this portion of the test. The Score of Speed in the Function Word Test showed that the treatment group decreased the number of below average performers by 18%. An increase in the number of cases rated as average from 68% to 89%. The control group also showed an increase in their scores. The Function Word Reading Scores showed that the treatment group did have an increase. The control group also had an increase in this area.

The results of the Content Words portion of the Speed and Accuracy Test showed that the treatment group decreased their reading time. The control group did too. So, both groups decreased their reading times.

The number of errors on the Content Words decreased significantly for the treatment group and the control group. The Content Score of Speed decreased as did the control group. The Content Words Reading Score showed that the treatment group and the control group both showed substantial gains on this measure.

The Non Words portion of the Speed and Accuracy Test showed that the Reading Times (in seconds) were not significant. The instruction in the control group nor the treatment group had any effect on the reading times. The number of errors on the Non Word Section showed that the treatment group and the control group significantly decreased their number of errors on this portion of the test. The Non Words Score of Speed showed that the treatment group had gains and that the control group showed a tremendous amount of gains. The control remained unchanged throughout the school year so neither group really had any effect on the students.

Conclusions

The following conclusions were made based upon the results of this study:

1. The analysis of data for this study involving phonological awareness suggests that it is necessary but insufficient to support itself independently to promote fluency, sight word recognition and comprehension.
2. This study does support that by utilizing graphophonics and oral reading that it does promote language skills. The vocabulary test shows the growth that the treatment group had from the pre-testing to the-post testing.

3. The Title I Reading Program does show evidence of success by referring to the T-Test results. Three of the four tests did show a significant increase from the pre-tests to the post-tests.
4. An analysis of covariance was done between the two groups and showed that two of the four measures had a significant difference between the groups.
5. When the Title I group is compared with the control group, the control group increased more on the Test of Phonological Awareness.
6. When the Title I group is compared with the control group, the treatment group had little effect on the Function Word Test.
7. Both the treatment and the control group lowered the number of errors on the Function Words test.
8. Both the treatment group and the control group showed improvement on the Score of Speed for the Function Words.
9. Both the treatment group and the control group showed improvement on the Word Function Reading Scores.
10. On the Content Words Reading Time, both the treatment group and the control group significantly decreased their reading time.
11. The average number of errors on the Content Words decreased significantly for both the treatment group and the control group.
12. The Content Score of Speed for the treatment group and the control group increased from the fall to the winter scores.

13. The Content Reading Scores for the treatment group showed a remarkable increase in their ratings. The control group showed improvement but not as much as the other group.
14. The results were not significant for either the treatment group or the control group on the Reading Time for the Non Word Test.
15. Both the treatment group and the control group significantly decreased their number of errors on the Non Word Test.
16. The treatment group and the control group both showed improvement on the Non Words Score of Speed.
17. The Non Word Reading Score showed that neither the Treatment or Control group had much effect on the scores of this test.

Recommendations for Further Research

Based on the findings of this study, the following recommendations are suggested:

1. The study was done with regular classroom and Title I students. It is suggested that further research is done with readers who are on the same level.
2. Another study could be done with this Title I Reading Program compared with another Title I Reading Program.
3. This study was limited to second grade students. Further research comparing third grade students is suggested.
4. Other measures such as the Gates MacGinitie Reading Test is suggested to obtain a reading comprehension score.

5. There could be more research done in using the Reading Recovery method with second grade students. This program is typically used with first grade students.
6. This study was limited to thirty-minute intervals with students. Further research in having more time spent with students is suggested.
7. Further research is needed in order to learn how to teach decoding skills to these students more effectively. This was a weak area for the treatment group.
8. Further research is needed in the area of graphophonics. The tests used did not reveal the amount of influence the writing aspect had.
9. More research is needed because the majority of these students are not on grade level.

Implications of the Study

The study of Title I reading programs and reading recovery is important to researchers who are trying to decide the best intervention program to use with students. It is important that by using phonological awareness that there is a correlation to successful readers. This research has implications for determining what is successful and what changes could be made. This is however, vital to the field of research. Research allows people to find what works and what does not. If we had all the answers to every question, then there would be no need for research and we would all be perfect.

This study has implications for those who are teaching at the college level to better understand the teachers they are training to be with children. College level professors need to spend more time working with children. Administrators who are designing

curriculum and choosing computer software, make choices that are right for the children and their needs, not what is written in a book. These are the people who can make change happen. The teachers are in the classroom because they want to be there. Everyone has a choice in his or her profession.

The results of this study suggest that phonological awareness, oral reading and a modified Reading Recovery Program is important in developing skills in reading. It may be necessary that intense early reading programs should begin at a much earlier age.

Even though the Gates MacGinitie Reading Test could not be included for a reading comprehension score, there were some important findings about the Title I students. The students attended class for thirty minutes each day, yet the majority of them did show growth. There were six students who tested out of the program. A few students had an increase of 30 points in their NCE score. The use of this Modified Reading Recovery Method increased their reading comprehension, vocabulary, speed and accuracy, decoding skills, and listening comprehension.

REFERENCES

- Adams, Marilyn (1990). Beginning to read: thinking and learning about print. Cambridge, MA: MIT Press.
- Allington, R. (1992). Literacy for all children: How to get information on several proven programs for accelerating the progress of low-achieving children. The Reading Teacher, 46, 246-248.
- Anderson, M., Holligan, C., & Johnston, R. (1996). Knowledge of the alphabet and explicit awareness of phonemes in pre-readers: The nature of the relationship. Reading and Writing: An Interdisciplinary Journal, 8, 217-234.
- Barr, R., & Shanahan, T. (1995). Reading Recovery: An independent evaluation of the effects of an early instructional intervention for at-risk learners. Reading Research Quarterly, 30, 958-996.
- Bird, J., Bishop, D., & Freeman, N. (1995). Phonological awareness and literacy development in children with expressive phonological impairments. Journal of Speech and Hearing Research, 38, 446-462.
- Bryant, P., & Suk-Han Ho, C. (1997). Learning to read Chinese beyond the logographic phrase. Reading Research Quarterly, 32, 276-289.
- Bryk, A., DeFord, D., Lyons, C., Pinnell, G., & Seltzer, M. (1994). Comparing instructional models for the literacy education of high-risk first graders. Reading Research Quarterly, 29, 9-39.
- Byrne, B., & Fielding-Barnsley, R. (1995). Evaluation of a program to teach phonemic awareness to young children: A 2- and 3- year follow-up and a new preschool trial. Journal of Educational Psychology, 87, 488-503.
- Cardoso-Martins, C. (1995). Sensitivity to rhymes, syllables, and phonemes in literacy acquisition in Portuguese. Reading Research Quarterly, 30, 808-828.
- Cary, L., & Verhaeghe, A. (1994). Promoting phonemic analysis ability among kindergartners. Reading and Writing: An Interdisciplinary Journal, 6, 251-278.
- Center, Y., Wheldall, K., Freeman, L., Outhred, L., & McNaught, M. (1995). An evaluation of Reading Recovery, Reading Research Quarterly, 30, 240-263.
- Chang, C. (1995). What is phonological awareness? Journal of Educational Psychology, 87, 179-192.

- Chapman, J., & Tunmer, W. (1991). Recovering Reading Recovery. Australia and New Zealand Journal of Developmental Disabilities, 17, 59-71.
- Clay, M. (1982). Observing young readers: Selected papers. Portsmouth, NH: Heinemann.
- Clay, M. (1993). An observational study of literacy achievement. Hong Kong: Heinemann.
- Crawley, S. & Merritt, K. (1996). Remediating reading difficulties. Dubuque, IA: Brown & Benchmark.
- Cunningham, P. (1990). The names test: A quick assessment of decoding ability. The Reading Teacher, 44, 124-129.
- Dorn, L., & Allen, A. (1995). Helping low-achieving first-grade readers: A program combining Reading Recovery tutoring and small group instruction. ERS Spectrum: Journal of School Research and Information, 13, 16-24.
- Dyer, P. (1992). Reading Recovery: A cost-effectiveness and educational-outcomes analysis. ERS Spectrum: Journal of School Research and Information, 10, 10-19.
- Elbro, C. (1996). Early linguistic abilities and reading development: A review and a hypothesis. Reading and Writing: An Interdisciplinary Journal, 8, 453-485.
- Fields, M. (1995). Let's Begin Reading Right. Englewood Cliffs, NJ: Prentice-Hall.
- Glynn, T., Bethune, N., Crooks, T., Ballard, K., & Smith, J. (1992). Reading Recovery in context: Implementation and outcome. Journal of Educational Psychology, 12, 249-261.
- Goldenberg, C. (1991). Learning to read in New Zealand: The balance of skills and meaning. Language Arts, 68, 555-562.
- Gonzalez, J., & Garcia, C. (1995). Effects of word linguistic properties on phonological awareness in Spanish children. Journal of Educational Psychology, 87, 193-201.
- Gordon, R., (1988). Increasing efficiency and effectiveness in predicting second-grade achievement using a kindergarten screening battery. Journal of Educational Research, 81, 238-244.
- Hanley, R., & Huang, H. (1994). Phonological awareness and visual skills in learning to read Chinese and English. Cognition, 54, 73-98.

- Henk, W. (1995). The reader self-perception scale (RSPS): A new tool for measuring how children feel about themselves as readers. The Reading Teacher, 48, 470-477.
- Hiebert, Elfireda H., Taylor, Barbara M. (1994). Getting reading right from the start. Needham Heights, MA: Allyn and Bacon.
- Hoiem, T., Lundberg, I. Stanovich, K., & Bjaalid, I. (1995). Components of phonological awareness. Reading and Writing: An Interdisciplinary Journal, 7, 171-188.
- IRA/NCTE Joint Task Force on Assessment. (1994). Standards for the assessment of reading and writing. Newark, Del.: International Reading Association & National Council of Teachers of English.
- Iverson, S. & Tunmer, W. (1993). Phonological processing skills and the Reading Recovery program. Journal of Educational Psychology, 85, 112-126.
- Johnston, R., Anderson, M., & Holligan, C. (1996). Knowledge of the alphabet and explicit awareness of phonemes in pre-readers: The nature of the relationship. Reading and Writing: An Interdisciplinary Journal, 8, 217-234.
- Joshi, R. (1995). Assessing reading and spelling skills. School Psychology Review, 24, 361-375.
- Lundberg, I., Frost, J., & Petersen, O. (1988). Effects of an extensive program for stimulating phonological awareness in preschool children. Reading Research Quarterly, 23, 263-84.
- Martin, D., & Stuart-Smith, J. (1997). Investigating literacy and pre-literacy skills in Panjabi/English schoolchildren. Educational Review, 49, 181-197.
- McBride-Chang, C. (1995). What is phonological awareness? Journal of Educational Psychology, 87, 179-192.
- McBride-Chang, C. & Manis, F. (1996). Structural invariance in the associations of naming speed, phonological awareness, and verbal reasoning in good and poor readers: A test of the double deficit hypothesis. Reading and Writing: An Interdisciplinary Journal, 8, 323-339.
- McKenna, M., & Kear, D. (1990). Measuring attitudes toward reading: A new tool for teachers. The Reading Teacher, 43, 626-639.
- Pikulski, J. (1994). Preventing reading failure: A review of five effective programs. The Reading Teacher, 48, 30-39.

- Rasinski, T. (1995). Commentary on the effects of Reading Recovery: A response to Pinnell, Lyons, Deford, Bryk, and Seltzer, Reading Research Quarterly, 30, 264-270.
- Reynolds, D. (1993). The Reading Recovery Program as it relates to understanding. Reading Improvement, 30, 76-81.
- Rhodes, L., & Shanklin, N. (1993). Windows into literacy: Assessing learners, K-8. Portsmouth, NH. Heinemann.
- Rohl, M., & Pratt, C. (1995). Phonological awareness, verbal working memory and the acquisition of literacy. Reading and Writing: An Interdisciplinary Journal, 7, 327-360.
- Spiegel, D. (1995). A comparison of traditional remedial programs and Reading Recovery: Guidelines for success for all programs. The Reading Teacher, 49, 86-95.
- Stebbins, J., & Vliek, M. (1991). Emphasis: Early intervention. Arizona Reading Journal, 20, 33-34.
- Tunmer, W. (1990). Does Reading Recovery work? Delta, 44, 3-15.
- Tunmer, W., & Hoover, W. (1993). Phonological recoding skill and beginning reading. Reading and Writing: An Interdisciplinary Journal, 5, 161-179.
- Wade, S. (1990). Using think alouds to assess comprehension. The Reading Teacher, 43, 442-451.
- Walker, B. (1996). Diagnostic teaching of reading. Englewood Cliffs, NJ: Prentice-Hall.
- Wasik, B., & Slavin, R. (1993). Preventing early reading failure with one-to-one tutoring: A review of five programs. Reading Research Quarterly, 28, 179-200.
- Yopp, H. (1992). Developing phonemic awareness in young children. The Reading Teacher, 45, 696-703.

APPENDIX A
PARENTAL CONSENT FORM

Dear parents,

In cooperation with Oklahoma State University, the principal, and your child's teacher, I have been granted permission to gather information for my doctoral research at C.E. Gray Elementary School. I am interested in learning about reading and listening comprehension.

I would like to have your permission to give your child a few tests. The testing will take only 20-30 minutes and will be conducted during school hours. The scores will be kept confidential and will only be shared with the appropriate people.

Your child's name will not be used. I am only interested in the scores for my research. I am trying to gather research that shows the most appropriate practices in teaching reading. Would you kindly allow your child to participate and please return the consent form? Thank you so much for helping me to do research in the field of reading. Please feel free to call me with any questions or concerns. I am available at C.E. Gray Elementary 366-2245.

Sincerely,

Delana McManus

_____ Permission is granted

_____ Permission is not granted

for my child, _____ to participate in the requested activity. I understand that the purpose of this research is to collect information about reading and listening comprehension. No benefits can be promised to my child or myself other than the benefit of contributing to the study of determining the most appropriate practices in teaching reading.

APPENDIX B

IRB FORM

OKLAHOMA STATE UNIVERSITY
INSTITUTIONAL REVIEW BOARD

DATE: 01-05-99

IRB #: ED-99-061

**Proposal Title: A MODIFIED READING RECOVERY PROGRAM CAN BE
SUCCESSFUL IN A SECOND GRADE TITLE I CLASSROOM**

Principal Investigator(s): Malatesha Joshi, Delana McManus

Reviewed and Processed as: Expedited with Special Population

Approval Status Recommended by Reviewer(s): Approved

Signature: 

Date: January 5, 1999

Carol Olson, Director of University Research Compliance
cc: Delana McManus

Approvals are valid for one calendar year, after which time a request for continuation must be submitted. Any modification to the research project approved by the IRB must be submitted for approval. Approved projects are subject to monitoring by the IRB. Expedited and exempt projects may be reviewed by the full Institutional Review Board.

VITA

Delana A. McManus

Candidate for the Degree of

Doctor of Education

Thesis: A MODIFIED READING RECOVERY PROGRAM CAN BE SUCCESSFUL
IN A SECOND GRADE TITLE I CLASSROOM

Major Field: Curriculum and Instruction

Biographical:

Personal Data: Born and raised in Tulsa, Oklahoma, the daughter of Richard and Mary Campbell. Sister of Don and David Campbell. Married to Sean M. McManus.

Education: Graduated from Nathan Hale High School in June, 1988; received Bachelor of Science in Early Childhood Education degree from Northeastern State University in May, 1993; received Master of Science in Curriculum and Instruction degree from Oklahoma State University in July, 1996. Completed the Requirements for the Doctor of Education degree at Oklahoma State University in July, 1999.

Professional Experience: Elementary Teacher of first grade; Title I Reading Specialist of first and second grade students.

Professional Organizations: Kappa Delta Phi, International Reading Association, Tulsa County Reading Council, Oklahoma Education Association, National Education Association, Disabled Readers Group.