A STUDY OF THE EFFECT OF EARLY INTERVENTION PROGRAMS ON THE READING ACHIEVEMENT OF AT-RISK PRIMARY STUDENTS

JANE ELLEN LOGGINS

To the Graduate Council:

I am submitting herewith a field study written by Jane Ellen Loggins entitled "A Study of the Effect of Early Intervention Programs on the Reading Achievement of At-Risk Primary Students." I have examined the final copy of this field study for form and content and recommend that it be accepted in partial fulfillment for the degree of Education Specialist, with a major in Administration and Supervision.

Dr. Leon Sitter

Director of Field Study

We have read this field study and recommend its acceptance:

Dr. Allan Williams

Dr. Margaret Deitrich

Accepted for the Graduate and Research Council:

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A STUDY OF THE EFFECT OF EARLY INTERVENTION PROGRAMS ON THE READING ACHIEVEMENT OF AT-RISK PRIMARY STUDENTS

A Field Study

Presented to the

Graduate and Research Council of

Austin Peay State University

In Partial Fulfillment
of the Requirements for the Degree
Education Specialist

by

Jane Ellen Loggins

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ABSTRACT

The problem investigated in this study is the reading achievement of "At-Risk" primary students after participation in a remedial reading program that emphasized phonemic awareness, literature based instruction and peer tutoring at Fort Campbell, Kentucky. Twenty-seven primary students having difficulty with reading, between the ages of six and eight, participated in the study. Information on the results was gathered by accessing student records such as grades and promotion-retention records. Teacher surveys were also uses to denote areas of strength or weakness of the program.

The findings of this study show that this type of remedial program will help students enhance their reading skills. However, the benefits do not seem to have been long lasting. In conclusion, a remedial reading program must contain enough support and duration to effectively foster successful readers.

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CHAPTER I

Introduction

Educators have recognized the need to serve low achieving readers with programs that individualize, support and remediate children in the early years of education. One program which is apparently successful is Reading Recovery. This program is based on the work of Marie Clay. Reading Recovery stresses intensive teacher training. After teachers have been trained, the children are tutored one-to-one based on Clay's theory of the top down method of reading instruction (Clay 1985). Phonemic awareness is incorporated in meaningful ways along with reading and writing instruction during the lessons. Reading Recovery programs have shown success in helping disabled readers achieve the reading level of their peers. However, this program is costly and can not be afforded by some school systems

Many educators have adapted the Reading Recovery theories to facilitate early intervention literacy programs for small groups. Some of the adaptations are group tutoring, more instruction on phonological processing skills, increased and decreased amount of time spent on remedial lessons and specialization in teacher training. The most important factor in this type of program is to facilitate the success of the low achieving child in reading. Educators must determine (a) what type of program best serves the students in their system, (b) is economically

feasible, and (c) will have successful outcomes. This field study reviews the literature on the basic Reading Recovery program and early literacy programs that developed out of Reading Recovery theory. Additionally, the study assesses the achievement of participants in "The Before School Reading Hour." This program is based on modified Reading Recovery theories and is in effect at Marshall Elementary School, Fort Campbell, Kentucky. The modifications to this program were developed to meet the needs of students in a positive manner and is also cost effective for the school

Statement of the Problem

The problem investigated in this study was the reading achievement of "At-Risk" primary students after participation in "The Before School Reading Hour" at Marshall Elementary School, Fort Campbell, Kentucky.

Significance of Study

It is hoped that the information in this study will help educators develop new strategies to help young children improve and maintain their emergent reading skills. The facts in this study will also serve as a source of information on various remedial reading programs that are being used throughout the country. Also

contained in this study are the findings of one program that was developed and implemented at Marshall Elementary School, Fort Campbell, Kentucky. The information gathered and the results of this information can be used to better serve the children we strive to educate.

Limitations of the Study

The literature review on modified Reading Recovery programs was limited to the holdings and electronic data bases available at the Austin Peay State University Woodward Library and information accessed through The Ohio State University Reading Recovery Program. The population of students in "The Before School Reading Hour" was limited to "At-Risk" primary students at Marshall Elementary School, Fort Campbell, Kentucky. The regular classroom instruction the children received varied among the classrooms.

CHAPTER II

Review of Related Literature

McCarthy. Newby and Recht (1995) stated the basic theory behind many intervention programs for young children at risk of failure is to interrupt a causal chain which may lead to the academic downfall of the child. Many students come to school with less exposure to print and lack the background necessary to succeed in early school reading programs. These children should be involved in early intervention programs to help overcome this rift in learning. Early intervention does not always guarantee success in the future but, failure in the early years is almost always a precursor for failure later in the academic years.

The Reading Recovery program has been determined to be a successful way to help "At-Risk" students achieve the reading level of their peers. However, it is an expensive program that may cost as much as \$8,333 per year per student, according to Gerald Bracey (1995). This cost is often too much for school systems. Also, the long term retention of success has not been established. Modifications and experimentation on the basic program theories have been started which may have the same positive effects on learning and be more cost effective.

Shanahan and Barr (1995) suggest modifications in the program. For example more direct phoneme instruction may reduce the amount of time children spend in remedial tutoring. Other modifications included (a) follow-up programs after first and second grade to maintain what was learned in the early literacy

program, (b) tutoring more than one child at a time, and (c) supplementing the program with parent support.

According to Dixie Spiegel (1995), the principles of reading recovery should be seen as stepping stones to enhance a child's success in any reading program. The principles are not the exclusive property of Reading Recovery. They should be studied, implemented and modified to enhance all reading programs.

Pinnell, Lyons, Deford, Bryk and Seltzer (1994) state the theory of learning to read is based on the idea that children construct cognitive systems to understand the world of language. These cognitive systems develop as self extending systems which further generate learning through multiple sources of information.

Shanahan and Barr (1995) indicate it would be wrong to accept only one appropriate intervention for children. As educators we should adopt proven methods of remediation, then develop innovations to establish even better approaches to early intervention and remediation of reading problems. The goal of intervention is to establish a record of success and achievement for the "At-Risk" child

Reading is often looked at as only a mechanical function. According to Anne Sweet (1993), teaching children to read involves many factors that relate to the context of literacy activities. Some of these factors involve social interaction and discussion that takes place during reading and the child's own personal attributes

and background of knowledge that he/she may bring to the classroom. The skilled reader uses his/her prior knowledge to (a) gain information from new material, (b) uses a variety of skills to decipher new information, (c) is motivated to read for pleasure, and (d) interacts socially to make gains in literacy development. The struggling reader may lack many of these attributes and is often the student that may not interact in socially appropriate ways during reading due to a lack of confidence in his/her ability to read.

Children's awareness of the phonemic structure of spoken words is often a precursor to success in reading. Phonemic awareness helps children recognize letter sound correspondence and helps them distinguish patterns in spoken words. As word identification becomes less of a struggle for children, they can focus more on constructing meaning while reading. Some children develop phonemic awareness without formal instruction. Many struggling readers tend to lack this awareness. To help struggling readers develop phonemic awareness Sweet (1993) writes that a balance of activities that integrate phonics instruction with meaningful reading experiences can improve word recognition skills. Writing and spelling should also be integrated in reading instruction. The use of invented spelling should be encouraged which will help children develop phonemic awareness and increase knowledge of spelling patterns. Effective teachers weave these activities into instruction and do not teach phonics as a separate subject.

Honig (1996) writes that children who lack phonemic awareness in kindergarten can develop this awareness with only about fifteen hours of specifically designed kindergarten instruction that focuses on rhyming and word play.

This, in addition to their regular classroom instruction, should prepare them for the decoding that will be done in first grade, according to Honig. Honig also states that almost every poor reader and 50% of special education students lack proficiency in phonemic awareness. This deficit can not be overcome without specific instruction.

Storybook reading can also help readers establish effective strategies to the reading process. Children are read to by an effective reader which can be the teacher or a peer tutor. This allows the children to see reading strategies modeled and also fosters a relaxing and enjoyable environment. During reading, the children interact and discuss the story to construct meaning. The children should also be given the opportunity to participate in activities in which they can show comprehension of meaning. Some activities could be (a) writing, (b) drawing, (c) making characters in the story, (d) using graphic organizers, or (e) acting a story out with puppets. Children need to become involved with the literature in many ways to assure comprehension. After the story has been read to a child or children, they need to have time to re-read the story themselves to practice some of the effective reading strategies they have seen modeled.

Many expert readers use five strategies to construct meaning during reading. According to Sweet (1993), they are (a) inferencing, (b) identifying important

information, (c) monitoring, (d) summarizing, and (e) generating questions. A struggling reader often does not use any of these strategies as he/she is working very hard to decode individual words. These strategies can be taught to the struggling reader during read-a-louds. A teacher or peer can read to the student and teach him/her to stop and infer or make predictions about what may happen next. Identifying important facts can also be done when a child is being read to, ideas or facts can be charted or listed. Monitoring is one of the most effective strategies that can be taught. A struggling reader often just passes over information he does not understand. A fluent reader checks himself for understanding. If something does not make sense, a fluent reader will re-read the text. Struggling readers need to become aware that it is all right to stop and re-read. Reading is only beneficial if the text is comprehended. Summarizing helps the reader pull the entire story together. Question generating allows readers to develop questions they may want answered. This can be done before, during, or after a story has been read. A KWL chart is often helpful to graphically display questions and answers. This strategy requires children to integrate information as they read.

In a study on classwide peer tutoring to improve reading skills of mildly autistic students, Kamps, Barbetta and Delquadri (1994) found that by alternating the roles of tutor and tutee all students benefited from the experience. Verbal and written practice skills such as reading out loud, practicing math facts and spelling practice all indicated enhanced student performance. The findings in this study

showed that classwide peer tutoring was an effective strategy for enhancing the performance of autistic students in the areas of reading fluency and comprehension. All children involved in the study had more chances to practice skills and be involved in academic experiences because of the peer tutor relationship. The expanded practice time and the use of immediate positive feedback helped these children enhance their performance. Social interaction between the children was also improved due to the peer tutoring relationship. Many of the children reported favorably on the peer tutoring program. Some of the children stated that the peer tutor relationship helped them get along with their peers better. Many children remarked that they would like to participate in the program again.

In one other study low performing students were placed in groups that incorporated peer tutoring in their classrooms during reading instruction. The researchers, Simmons, Fuchs, Mathes and Hodge, (1995) examined the effect of the peer tutor groups on reading achievement. The children that participated in this study were in grades two through five. Sixteen teachers participated in this study and eight served at the control group. The classes were observed by researchers during reading instruction. The control teachers used only teacher directed instruction while the eight experimental teachers used peer tutoring in the classroom. In the teacher directed lesson, the teacher taught in small steps, gave guided practice, modeled and allowed the children to apply what had been taught.

In the peer tutoring classrooms the teacher provided the guidelines and expectations to be met during the peer tutoring session.

The results of this study show that the children involved in peer tutoring spent more time engaged in relevant academic behaviors such as questioning, discussing and reinforcing with immediate feedback. The repeated reading of material with peers reduced the students demands of decoding and word recognition, thus the students read more fluently and comprehension improved. The use of peer tutors allowed for the accommodation of individual differences during reading instruction. Since most remedial reading program participants are only the weaker readers, incorporating children of various reading abilities into remedial reading programs as peer tutors and reading partners can assure that the struggling reader will be provided with immediate feedback and encouragement. The peer tutor is an untapped resource in many remedial reading programs.

According to Constance Kamii (1991) educators need to be aware that children carry different knowledge, beliefs and experiences into the classroom. Educators need to recognize that all children will develop at their own pace. Teachers should accept what children bring with them to the classroom and build upon that prior knowledge base. The development of the reading process may require different techniques for different children. Teachers and administrators need to structure literacy programs so they meet the needs of individual students and will assure success of these students.

CHAPTER III

Method

Information on the students' reading achievement in the regular classroom was accessed through nine week student progress reports at Marshall Elementary School and anecdotal records kept by classroom teachers. Success was determined if the child was receiving a 2 or above on the grading scale of 1-4 in reading and is reading along with peers in the regular classroom. Final success was determined at the end of the 1996-1997 school year when the child was retained or promoted to the next grade. Student improvement was also be measured by teacher and parent surveys which focused on the student's reading development and attitude toward reading.

Subjects

The subjects involved in this study were primary students at Marshall Elementary School, Fort Campbell, Kentucky. Classroom teachers selected these students to participate in The Before School Reading Program because they were not reading at grade level and were perceived as struggling with beginning reading skills. Parent permission was given for each of the children to participate in this program. A total of 27 children participated in this program in four - six week sessions during the 1996-1997 school year.

Definition of Terms

"At Risk" Student - Struggling with beginning reading. They have not been able to achieve the reading skills of their peers. The classroom teacher refers this child to the program based on potential failure in literacy.

"The Before School Reading Program" - A remedial reading program at Marshall Elementary School, Fort Campbell, Kentucky. This program was based on a modified Reading Recovery philosophy. Children were taught in groups of no more than four. The instruction consisted of (a) group instruction, (b) then independent reading at their personal reading level, (c) writing about the reading topic, and (d) a structured phonological skill lesson. This instruction took place before school so it was an add on program and not a pull out of the child's regular classroom.

Instructors in the program were **not** certified Reading Recovery teachers but were experienced classroom teachers who studied remedial reading theories and collaborated with the administration to develop this program.

Participation - The child had instruction for at least eighteen hours in "The Before School Reading Program." The schedule of lessons were one hour, three days a week for at least six weeks.

Phonemic Awareness - Awareness of letter sound correspondence and combination.

Primary Students - Children from six to eight years of age.

Success - The child was able to read and comprehend at grade level or the level of his/her peers. He or she was not failing reading in the regular classroom. At this point the child was exited from "The Before School Reading Program" however, the child could re-enter on a revolving door basis if necessary.

Grading Scale of 1-4 at Marshall School -

- 1-Skills Well Developed
- 2-Skills Developed Satisfactorily
- 3-Basic Skills Need Improvement
- 4-Basic Skills Not Acquired

Procedure

Classroom teachers in the first and second grades at Marshall Elementary School were asked to select children having difficulty with beginning reading skills. These students would be invited to participate in a remedial reading program that was offered before the school day, three days a week for six weeks. After the children were selected by their teachers, parent permission slips were sent home to identified students. Teacher and parent pre-surveys, with questions pertaining to the child's reading skills and attitude, were sent out at the beginning and end of each session of the program.

Children began attending sessions and were evaluated for basic reading skills. Evaluation consisted of (a) recognition of basic sight words on the Slossen list of basic sight words, (b) recognition of consonants and vowels, and knowledge of their sounds, (c) and comprehension. Comprehension was assessed by reading the child a short story and then allowing them to tell or draw about the story that was read to them.

After the child's strengths and deficits were established, the instruction focused on four specific components. These were (a) the development of letter sound relationships, (b) word recognition strategies,(c) comprehension, and (d) development of positive attitudes toward reading.

Students developed letter sound relationships by playing games and making manipulative projects which emphasized the letters, especially the vowels and related sounds. Word recognition strategies were developed by more games and activities that focused on looking at similarities between words. Many games involving rhyme where played so that children developed concepts about relationships between various words such as bat, cat, hat, sat, etc. Onset and rimes were used to build knowledge of word similarity. The students found that if they could read one of these words they could often sound out the others.

Comprehension was enhanced by allowing the child to listen to a story and then write or read about what had happened in the story. The focus

of these activities varied among different aspects of the story such as (a) main idea, (b) sequence of events, (c) characters, and (d) setting. Toward the end of the six week sessions some of the children could read short stories and develop their own stories with help.

Developing a positive attitude toward reading was enhanced by the instructors in this program by making it fun and non-threatening. The children were in small groups and often helped each other when they made mistakes. They needed to experience success in order to develop confidence in their reading ability. The teacher guided them at their own pace. They had the focused attention of the teacher in the program and participated in activities not offered to other children. The two teachers in this program taught at the grade level above the child's actual grade placement. As a result, the students felt like they were working with a teacher in a higher grade, rather than being pushed down a grade level.

During the six week programs, the two program instructors were in contact with the regular classroom teachers to assure the child's needs where being met.

Parents were encouraged to see that their child attended the program sessions on a regular basis. At the conclusion of each of the six week programs, classroom teachers and parents were given post-survey forms to complete. These were compared to the pre-survey forms to chart differences. At the end of the 1996-1997

school year, records where checked to see which of the program participants had been retained in their grade level for the following year.

CHAPTER IV

Results

Twenty-seven students participated in the study. At the end of the 1996-1997 school year, three of the participants were retained in their current grade level of first grade. When accessing records on grades for these students, eighteen students made a one increment increase in the grading scale at Marshall School. Four students remained at the previous grade on the grading scale which was the grade of 3-Basic Skills Need Improvement. Five of the children in the study had moved from Fort Campbell by the end of the school year and it was not possible to access their grades or information on retention.

The teacher and parent surveys that were given as pre and post program evaluations showed results on specific areas in which the children had made progress. The following is a sample of the questions asked on the pre and post survey instrument that was given to the regular classroom teachers of the children attending the remedial reading program. This survey was given to the teacher before the student attended the program and then given again to each classroom teacher at the end of a child's time in the program. Parents were also given a similar survey and the results of those returned agreed with the teacher survey results. The parent survey results have not been analyzed in this paper due to a lack of response. Only seven parent surveys were returned to the school.

		e correspondi 3 if sometime			on. Circle 5 if a never.	lways, 4 if				
1.	The student	associate sou	ınds with the	appropriate le	etter of the alpha	abet.				
	5	4	3	2	1					
2. The student recognizes 20 or more sight words.										
	5	4	3	2	1					
3. The student recognizes word patterns. (Rhyming Words)										
	5	4	3	2	1					
4. The student sounds out new words.										
	5	4	3	2	1					
5.	5. The student comprehends material that is read to him/her.									
	5	4	3	2	1					
6.	6. The student comprehends material he/she has read.									
	5	4	3	2	1					
7	7. The student relies on pictures to determine content of story.									
	5	4	3	2	1					
8. The student views himself/herself as a reader.										
	5	4	3	2	1					
9. The student enjoys reading.										
	5	4	3	2	1					
1		ent has a stror	ng sense of	self confidence	9.					
	5	4	3	2	1					

The pre and post survey results have been put into graphic form on page 20 of this paper. The horizontal axis of the graphs shows the teacher responses to the ten questions on the teacher survey. The vertical axis shows the number of students from the total of 27 that evaluated for each question by the teacher.

When evaluating the results of the pre and post surveys it can be observed that the children that attended the program made gains in the area of letter sound correspondence, sight word recognition, developing a sense of rhyme or pattern of words, sounding out words and comprehension. The teachers' responses also show that the students decreased in being dependent upon pictures to determine story content. In the aesthetic area of reading such as (a) self-concept, (b) self-esteem, and (c) viewing oneself as a reader the teacher responses show the children appeared to have made gains in these areas.

These survey results do not show if the academic and attitudinal gains these children have made will last and assure success in the future. The results only show the teachers perception of growth in the children over a six week period. For a program of remediation in reading to be truly effective, the results must be lasting and have a true impact on the child's long term ability to read and comprehend. Although the results of this survey look positive, there is still need for further study to determine if any positive effect on the children will withstand their future academic careers.

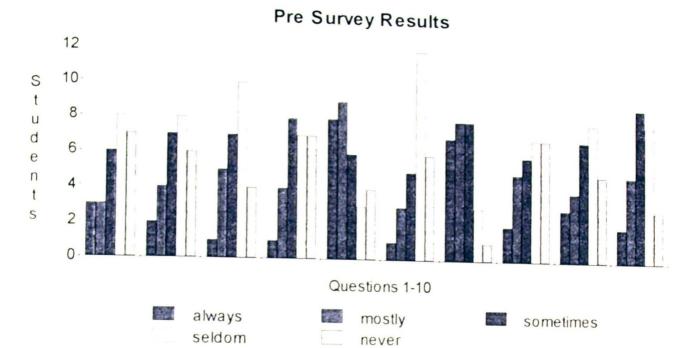


Figure 1: Pre Survey Results

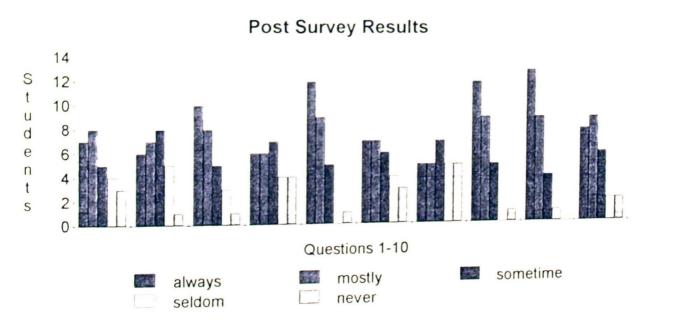


Figure 2: Post Survey Results

CHAPTER V

Summary, Discussion and Recommendations

This study examined the effects of an early intervention remedial reading program that combined phonemic awareness and literature based strategies to enhance the reading achievement of "At-Risk" primary school students. Through the use of student records and teacher comments on a reading survey, it has been established that this type of remedial reading program does make a positive impact on the students involved. Teachers and parents felt like the small group size and the emphasis on phonics helped the children develop strategies to decode and become more fluent readers. Teachers and parents also noted the positive social and emotional impact the program had on children. This impact was due to an enhanced attitude toward reading.

Discussion

This program did have an immediate impact on the children who participated. However, after one year since The Before School Reading Programs completion some of the participants remaining at Marshall School are again having difficulty in reading. During the 1997-1998 school year, eight of the program participants remain at Marshall School. Of these eight participants, three have qualified for special education and receive remedial help from the school resource teacher. The other five children are now below grade level in reading, though none will be retained this year.

It appears that the Before School Reading Program of 1996-1997 gave

these children just enough confidence and reading enhancement to finish the first grade. Reading ability may have decreased during the summer months, but these children were below grade level at the beginning of the 1997-1998 school year. They have struggled this year even though three of the five students not in resource have received help from parent tutors. For a program to be truly effective, it must take the child into the stage of being a proficient reader.

Recommendations

The use of a remedial program that incorporated phonemic awareness, literature based instruction, small group size, individualized instruction and peer tutoring can benefit many students. However, a program of this type needs to be long lasting to support the weaker reader until he/she has mastered the strategies of reading and is a fluent and fully competent reader. As educators we need to remember all children develop at different rates. We need to support the growth of all children by teaching to all ability levels. If a child needs support in reading we must use all available options to help the child achieve success. Support must be comprehensive and consistent to foster development of success in each and every child.

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VITA

Jane Ellen Loggins was born in Bethesda, Maryland. She attended elementary school in Wheaton, Maryland and attended secondary school in Fort Myers, Florida. She received the degree of Bachelor of Science in Elementary Education from Austin Peay State University in 1991. She received a Masters of Arts degree in Elementary Education from Austin Peay State University in 1992. In January 1996 she entered Austin Peay State University to work toward an Educational Specialist degree.

She taught first grade for the Clarksville Montgomery County School System and later taught English as a Second Language Kindergarten for the Saudi Arabian International School of Jeddah, Saudi Arabia. She is presently employed by the Fort Campbell School System as a second grade teacher.