Rowan University

Rowan Digital Works

Theses and Dissertations

5-24-2018

The effects of a leveled literacy intervention (LLI) on elementaryage students reading below grade level

Jennifer Majewski Rowan University

Follow this and additional works at: https://rdw.rowan.edu/etd



Part of the Language and Literacy Education Commons, and the Special Education and Teaching

Commons

Recommended Citation

Majewski, Jennifer, "The effects of a leveled literacy intervention (LLI) on elementary-age students reading below grade level" (2018). Theses and Dissertations. 2571. https://rdw.rowan.edu/etd/2571

This Thesis is brought to you for free and open access by Rowan Digital Works. It has been accepted for inclusion in Theses and Dissertations by an authorized administrator of Rowan Digital Works. For more information, please contact graduateresearch@rowan.edu.

THE EFFECTS OF A LEVELED LITERACY INTERVENTION (LLI) ON ELEMENTARY-AGE STUDENTS READING BELOW GRADE LEVEL

by

Jennifer Majewski

A Thesis

Submitted to the
Department of Interdisciplinary and Inclusive Education
College of Education
In partial fulfillment of the requirement
For the degree of
Master of Arts in Special Education
at
Rowan University
April 30, 2018

Thesis Advisor: Dr. S. Jay Kuder

Acknowledgements

I would like to express my deepest appreciation to Professor Kuder for his guidance and help throughout this research. Your patience, encouragement, and feedback have helped me with the completion of this study!

I am indebted to my friends and colleagues who have also supported me throughout this research. I appreciate all of your support and patience throughout this process. Especially to Ann for your feedback and encouragement the whole way! Your positive influence kept me going!

Finally, I must express my very profound gratitude to my parents and to Tom for providing me with constant support and continuous encouragement throughout the process of researching and writing this thesis. This accomplishment would not have been possible without them.

Abstract

Jennifer Majewski THE EFFECTS OF A LEVELED LITERACY INTERVENTION (LLI) ON ELEMENTARY-AGE STUDENTS READING BELOW GRADE LEVEL 2017-2018

Dr. S. Jay Kuder Master of Arts in Special Education

The purpose of this study was to evaluate students who were having reading and writing difficulties and who were also below grade level by using Fountas and Pinnell's Leveled Literacy Intervention as a supplemental program to show that change occurs after treatment. I found that there was a third of the students who were seven years old were below grade level in their reading. I am hopeful that with using the LLI program as a supplemental to their regular reading program, the students will improve their reading performance levels. The method that is the most appropriate is the two group, experimental-control group design, to see if the effects of using a leveled literacy program as a supplemental program will give students the tools and strategies to help improve their reading skills. The results of the present study indicate that the implementation of a leveled literacy program as a supplemental to the students regular education can improve the reading performance of students with below age-level reading performance compared to students who did not receive the intervention has been answered. This intervention should remain and continue to be used to make sure that all students are given the chance to be successful in their reading and also given the tools and strategies to ensure their success.

Table of Contents

Abstractiv
List of Figures
List of Tablesviii
Chapter 1: Introduction
Chapter 2: Literature Review
Early Intervention and Response to Intervention5
Leveled Literacy Intervention (LLI)
Studies of the Leveled Literacy Intervention Program
Summary
Chapter 3: Methodology
Setting and Participants
Procedure
Variables17
Method
Chapter 4: Results
Summary19
Group Results19
Individual Results21
Chapter 5: Discussion
Previous Research
Conclusion41
References 42

List of Figures

Figure	Page
Figure 1. RTI Conceptual System with General and Special Education Integrates	
at All Three Levels	7
Figure 2. Text Gradient	9
Figure 3. Participant 1 Sight Words	22
Figure 4. Participant 1 LLI Data Management Report	23
Figure 5. Participant 1 STAR Assessment	23
Figure 6. Participant 2 Sight Words	24
Figure 7. Participant 2 LLI Data Management Report	25
Figure 8. Participant 2 STAR Assessment	25
Figure 9. Participant 3 Sight Words	26
Figure 10. Participant 3 LLI Data Management Report	27
Figure 11. Participant 3 STAR Assessment	27
Figure 12. Participant 4 Sight Words	28
Figure 13. Participant 4 LLI Data Management Report	29
Figure 14. Participant 4 STAR Assessment	29
Figure 15. Participant 5 Sight Words	30
Figure 16. Participant 5 LLI Data Management Report	31
Figure 17. Participant 5 STAR Assessment	31
Figure 18. Participant 6 Sight Words	32
Figure 19. Participant 6 Guided Reading Levels	33
Figure 20. Participant 6 STAR Assessment	33
Figure 21. Participant 7 Sight Words	34

List of Figures (Continued)

Figure	Page
Figure 22. Participant 7 Guided Reading Levels	35
Figure 23. Participant 7 STAR Assessment	35
Figure 24. Participant 8 Sight Words	36
Figure 25. Participant 8 Guided Reading Levels	37
Figure 26. Participant 8 STAR Assessment	37

List of Tables

Table	Page
Table 1. Pretest and Posttest Results for Dolch Sight Words, Guided Reading Level	l,
and the STAR Assessment	20

Chapter 1

Introduction

As children begin to learn the fundamental skills of reading, some children may still find reading difficult even with being taught all of those skills. Children who struggle with reading often struggle throughout their lives (Fountas and Pinnell, 2009). As educators, it is important for us to find the appropriate strategies, interventions, and curriculum to help these children who struggle with reading before the students get further behind.

For this study, I used the Leveled Literacy Intervention (LLI) as a supplemental program in hopes to obtain reading proficiency of a Level H (beginning of 2nd grade) according to the Fountas and Pinnell Benchmark Assessment System. Fountas and Pinnell's leveling system is based on a gradient of text difficulty with Level A (Kindergarten) being the easiest to Level Z (Grades 9 and above). There were eight students who participated in this study. The students were chosen from two classrooms. Five of the students who were in the experimental group came from an inclusion classroom. The classroom consisted of 23 students with four adults. The classroom consisted of children with various IEPs that ranged from visually impaired to communication impaired, ESL students, and two students with a 504 plan. The demographic of the classroom was mixed. The other three students in the study who were in the control group also came from an inclusion classroom. The classroom consisted of 25 students with two adults. The classroom consisted of children with various IEPs that ranged from communication impaired to Autistic. The demographic of the classroom was mixed. The eight students chosen for this research included a student

who is classified as visually impaired, an ESL student, and six regular education students who receive RTI services. Irene C. Fountas and Gay Su Pinnell (2009) developed an intervention program called *Leveled Literacy Intervention* (LLI). Using this intervention program will help students who are have reading and writing difficulties and who are also below grade level. The goal of LLI is to get our struggling reading students up to grade level. Some of the key characteristics of LLI include that it is a supplemental instruction that is provided daily in a small group as a short term intervention.

The eight students chosen for this research included a student who is classified as visually impaired, an ESL student, and six regular education students who receive RTI services. Two students were being evaluated by the Child Study Team. All eight students started the 2017 school year at a Reading Level D (according to the Fountas and Pinnell Benchmark Assessment System). Level D is below grade level (end of Kindergarten). I hypothesize that using LLI as a supplemental program will give these students the tools and strategies to help improve their reading skills. These reading skills are important for the students because it will also help them in all academic areas and give them the confidence and skills to attain reading proficiency.

The research question that I examined in this study was:

-Can the implementation of a leveled literacy program as a supplement to their regular education program improve the reading performance of students with below agelevel reading performance?

For this study, I worked with five students, three to four times a week using the LLI program. While working in small group, I used the Green and Blue System of the Leveled Literacy Intervention which gears its lessons to Level C-Level N. The lessons are

designed by odd and even numbers and is comprised of four parts with additional support at the end of each lesson. When using the odd number lessons, students will reread the new book from the previous lesson, phonics/word work practice, introduction of new book, and letter/word work practice. When using the even number lessons, students will reread book/assessment, phonics/word work practice, writing about reading, introduce new book, and optional letter/word work practice. The main focus of the even number lessons is on writing by extending the meaning, phonics, word, work, and fluency.

I am hopeful that with using the LLI program as a supplemental to their regular reading program, the students will improve their reading performance levels. If using the LLI program can give results, teachers can utilize a program that can help their students in a way the other reading curriculums can't. The information that is collected can help teachers and administration with decisions regarding the each child's academic future. Teachers and administration can gain knowledge on if using LLI is a beneficial program or if the district needs to find another program to be implemented.

Chapter 2

Literature Review

The *Leveled Literacy Intervention* program (LLI) was developed by Gay Su Pinnell and Irene C. Fountas and was designed to be a short term program as a supplemental intervention for struggling readers (2010). The reason for the program is to help students who are struggling with their reading and writing and are reading below grade level.

Prior to implementation of the intervention each student completed a Fountas and Pinnell Benchmark System. When administering the benchmark, students read a book that was appropriate for their level. While the students were reading, a running record was completed based on the student's oral reading. After the students were finished reading they then answered comprehension questions. The comprehension questions asked questions about Within the Text and Beyond and About the Text. Students were also tested on Dolch Sight words once a month as well as a pretest and posttest of the STAR Assessment in Reading. Once the students level was determined, students either used the Orange, Green, or Blue Leveling System. Students worked in groups no larger than three students for each group. The lessons are designed sequentially by odd and even numbers and is comprised of four parts with additional support at the end of each lesson. When using the odd number lessons, students will reread the new book from the previous lesson, phonics/word work practice, introduction of new book, and letter/word work practice. When using the even number lessons, students will reread book/assessment, phonics/word work practice, writing about reading, introduce new book, and optional letter/word work practice. The main focus of the even number lessons is on writing by extending the meaning, phonics, word work, and fluency (Fountas & Pinnell, 2010). This chapter will review studies on early intervention and on response to intervention, as well as studies of the *Leveled Literacy Intervention* program.

Early Intervention and Response to Intervention

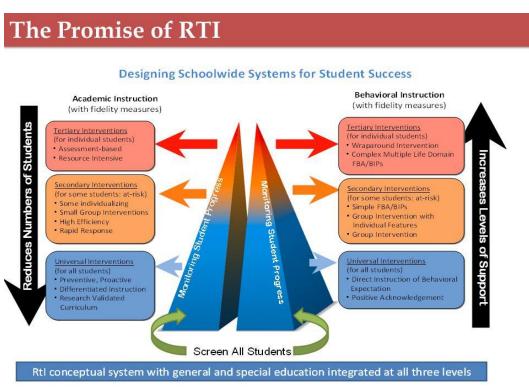
The National Reading Panel was created in 1997 to study the reasons for an increase in the amount of children who were having problems with reading. They realized that if students don't get the support that they need at an early age, these children may continue to struggle with reading for the rest of their lives. The National Reading Panel concluded that the best approach to giving reading instruction includes: explicit instruction in phonemic awareness, a systematic phonics instruction, strategies to improve fluency, and different ways to enhance comprehension. If children receive early intervention at a young age, they will be able to learn the tools and strategies to help improve their reading skills (NRP, 2001).

Early intervention can be successful for students who struggle with learning and behavior needs through the use of Response to Intervention (RTI). RTI can be used in all academic areas. This research will focus on reading intervention and the use of RTI.

According to Sailor (2009), Response to Intervention is a multi-tier approach to help students with learning and behavior needs and is designed to provide various interventions for these students. When using RTI, the implementation of the model should include high-quality, scientifically based classroom instruction, systematic screening, ongoing student assessment and progress monitoring, tiered instruction, and parent involvement. The three tier system is used to allow students who are not making progress in their grade level, to be put into one of the three tiers of RTI in order to help

the student get on grade level. When deciding on moving the students to another tier, it is based on the quality of student response to the research based intervention. Tier 1 is a universal intervention for all students in the classroom. Tier 2 is a more intensive intervention that is used for small groups that is targeted to students on what their needs are. Tier 3 is an individualized intervention with very few students. This tier is used when tier two interventions do not work (Sailor, 2009). All of the tiers place more responsibility on the classroom teacher to gather data, monitor progress, and making instructional decisions on each student (Cassidy, 2016). Recent studies of classroom teachers helping struggling readers in a regular education classroom have shown benefits of classroom teachers differentiating their instruction based on the student's needs (Vernon-Feagans, et. al., 2010). Vernon-Feagans, et. al. conducted a study on the effectiveness of a classroom teachers with students in Tier 2 intervention using Targeted Reading Intervention (TRI). The intervention included the five elements of intervention including explicit phonics and word based instruction in reading, in an early elementary school, intervention in done in small group or one-on-one, there is an emphasis on teacher/child relationship, and instruction should match the skill level of the student. The participants were in Kindergarten and 1st grade from a rural low income community. Results from Kindergarten concluded that TRI could benefit word reading skills with students who are struggling readers. It also showed that the struggling readers were catching up to non-struggling readers. The results from the first grade showed no effects from the intervention. The findings from the study suggested that teachers can be effective to helping struggling readers as long as the regular education teacher matches the student's instruction to their skill level. By doing this and using the appropriate

instructional strategies, students can make the most reading progress (Vernon-Feagans, et. al., 2010). Using RTI and early intervention, teachers are able to respond to each student's diverse needs within the classroom instruction, target small group instruction, and use intensive individual intervention as needed based on each child's tier and needs (Cassidy, 2016). Figure 1.1 shown below shows how RTI is integrated at all three levels for both academic instruction and behavioral instruction (Sailor, 2009).



Sailor, W. (2008, Sept.). *Inclusion through a different logic model*. Invited presentation at the 2008 Global Summit on Education, Washington, DC.

Figure 1.RTI Conceptual System with General and Special Education Integrates at All Three Levels

Since LLI is a research based intervention supplementary program that is provided daily and uses high-quality leveled text with ongoing assessments and progress

monitoring, LLI could fit under both Tier 2 and Tier 3 (Fountas & Pinnell, 2010) and used in the classroom.

Leveled Literacy Intervention (LLI)

LLI was designed for children who struggle with reading and writing. These children are working at a lower ability than their fellow peers, are not at grade level, and are not receiving any other intervention (2009). According to Fountas & Pinnell (2009), supplemental small-group instruction can help children make progress in reading as along as teachers can make real contributions to students learning in a small group that is organized, coherent, highly effective, and geared to the students needs; small group instruction is supplemental to a good classroom reading instruction; and some children may need additional support by being tutored one-one if the small group is not sufficient. When working in small group, using the necessary framework of lessons can help children who are at-risk readers. Some ways of making supplemental small-group instruction work include keeping the group size small, minimize the amount of time it takes to transition from small group to back to the classroom, maintaining a consistent schedule with having the students come at the same time of day, and coordinate the classroom and supplemental teaching to provide the best coherent teaching. In the Program Guide for Leveled Literacy Intervention (2009), the goal of LLI is to bring students to grade level achievement. In order to do so students follow the Fountas and Pinnell gradient of text difficulty. The Leveled Literacy Intervention program is based on this. See figure below.

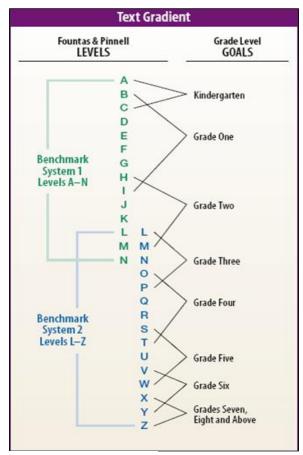


Figure 2.Text Gradient

Each level has different demands for the reader and gradually increases.

According to Fountas and Pinnell "LLI is particularly important for the lowest achieving children in Grade 2. It serves as an important prevention program for literacy difficulties in subsequent years of schooling (Program Guide for Leveled Literacy Intervention, 2009, Page 4)." When working with students using the different colored intervention systems (orange, green, and blue) some students may need additional support and can expand the lessons by using one of the other colored system if able to. All three systems can also work effectively for special education children and ELL students. The key aspects of teaching LLI include reading texts, writing texts, phonics/word study, and oral

language learning. When students are reading texts, some things students will be able to learn to do are: searching for and using meaning and language to solve new words, recognize high-frequency words, self-monitor, read with smoothness, use correct punctuation to guide meaning, and think about the implied messages of the text that was read. When students are writing, they will have many opportunities to write throughout the lessons. The students will be able to compose sentences regarding what they read about. Teachers will use interactive/shared writing, dictated writing, and independent writing for the students writing section. Phonics and word work includes letter, sounds, and word activities. The goal for the students is develop a strong letter-sound correspondence, word meanings, spelling patterns, and word structure when they are reading. Oral language is important for students because this is where they have conservations and use vocabulary to discuss the stories and if it relates to any of their experiences. All four of the these components are essential and important factors of LLI.

Studies of the Leveled Literacy Intervention Program

The *Leveled Literacy Intervention* program is a research based program that gives supplemental support to students. The goal of LLI is to provide intensive support to students who need help with reading and writing. Studies show how the implementation of a *Leveled Literacy Intervention* program can be an effective intervention.

Ransford-Kaldon, et. al. conducted a study focused on the implementation and impact of using LLI in 2009-2010 school year (2010). The study took place at Tift County Schools in Georgia and Enlarged City School District in Middletown, New York. Tift County Schools is a rural school district with primarily White and African American populations. More than half of the participants were identified as "economically

disadvantaged." In this study five elementary schools were included, with twenty one K-2 teachers trained and 209 students who participated. Enlarged City School District is a suburban school district that serves primarily Hispanic and African American populations. More than half of the participants were identified as "economically disadvantaged." In this study four elementary schools were included, with seven K-2 teachers trained and 218 students who participated. This study was a randomized controlled trial that used mixed-method designs with quantitative and qualitative data. The students were selected randomly in the 1st semester, and in a controlled condition for the 2nd semester. The study determined that LLI positively impacted K-2 students in literacy achievements in both rural and suburban settings. It also showed that it was effective with ELL students, Special Education students, and minority students. It showed a positive effect with children who are "economically disadvantaged." Across the three grade levels, teachers used the LLI Benchmark and found that the students who used LLI achieved 1.5 up to 5.5 benchmark levels, while students who did not receive LLI achieved between less than 1 up to 3 benchmark levels. When looking at the literacy achievement results showed that students who received LLI made significant progress in literacy compared to students who only received regular classroom literacy instruction and were eligible for LLI. After the completion of this study, teachers were impressed with the books that were used, guided lessons were planned for them, the integration of phonics and comprehension, and how it addresses both instructional and independent reading levels. Some areas of improvement they felt included the timeframe of the lessons could not always be completed in 30 minutes, system was too fast-paced, would like there to be a handwriting component.

Ransford-Kaldon, et. al. conducted another study on the implementation and impact of using LLI in 2011-2012 school year (2013). This study took place with K-2 students in 13 urban schools in Denver, Colorado. The population consisted of primarily minority and "economically disadvantaged" participants. 163 students were in the LLI group and 157 students were in the comparison group. The comparison group could receive any other literacy intervention that was available at any of the participating schools. The results from this study showed that LLI had a positive effect on reading achievements and potentially positive effects on reading fluency.

Odell conducted a study on the effects of Fountas & Pinnell's Leveled Literacy
Intervention on Kindergarten students reading below grade level during the 2011-2012
school year (2012). This study took place at Rowenwood Elementary School in North
Kansas City. The results compared students who were reading below grade level using
just guided reading to students who were reading below grade level and receiving LLI.
The results from this study concluded that students who received LLI doubled the
average reading growth compared to students who just received guided reading as an
intervention. The students who received LLI went up an average of 3.4 benchmark
levels, while students using just guided reading only went up an average of 1.7
benchmark levels. The outcome of this study showed that LLI had a significant difference
in reading growth and is a highly effective program.

Erwin conducted a study on the efficacy of LLI with struggling first and second grade readers during the 2014-2015 school year (2015). This study took place at Landon Elementary School which is located in a high poverty area in Northern California. 12 students were selected to participate from 1st and 2nd grade. 8 of the students were

classified as English Language Learners. The students were selected because they were performing at least one grade level below their grade level. The Leveled Literacy Intervention was implemented over 12 weeks. The study concluded that students benefited from small group literacy intervention, however some of the students did not move up to grade level, they saw an upward trajectory of movement to the student's grade level.

Mertes conducted a study on Leveled Literacy Intervention supports for English Language Learners. The study took place in Chicago at a middle class/upper middle class school district during the 2012-2013 school year (2015). The participants ranged from 1st-5th grade. There were 50 students who participated and selected at random (qualified as ELLs and instructed in a general education classroom). The participants received LLI for 3 months. The study concluded that LLI showed significant improvements in ELLs reading comprehension and significant gains in reading scores.

All of the studies have concluded that using the *Leveled Literacy Intervention* has shown improvements with their students reading levels.

Summary

Through early intervention and RTI, the hope for students who struggle with reading and writing and below grade level can become successful by learning the correct tools and strategies to obtain grade level achievement. Fountas and Pinnell's *Leveled Literacy Intervention* program is a program that will benefit students who need the extra support and will provide explicit instruction that will increase student reading levels to become on grade level.

Chapter 3

Methodology

Setting and Participants

This study took place at Bingham Elementary School, which is located in Runnemede, New Jersey. The Runnemede school district educates 852 students with approximately 118 students with an Individualized Education Plan (IEP). Eight students were selected for participation in this study. The students were chosen from two classrooms. Five of the students who were in the experimental group came from an inclusion classroom. These five students are seven years old. The makeup of the class consisted of sixteen boys and seven girls. There were four students who have an IEP, two students with a 504 Plan, four students who receive speech services, one student who receives ESL services, five students who receive Response to Intervention Tier 2 for Reading and two students who receive Response to Intervention Tier 2 for Math, and two students who were being evaluated by the Child Study Team. The other three students in the study who are in the control group also come from an inclusion classroom. These three students are seven years old. The makeup of the class consisted of fourteen boys and 11 girls. There were six students with IEPs, three students who go to the Resource Room for most of the day, three students who receive ESL services, ten students who receive speech services, five students who receive Response to Intervention Tier 2 for Reading in the classroom. They are receiving their regular literacy program and a small group phonics using Wilson Fundations. All of the students are seen three to four times a week for reading groups.

All of the students began the school year at a guided reading level D based on the Fountas and Pinnell Benchmark System. According to Fountas and Pinnell gradient of text difficulty, level D is at the end of Kindergarten which is below grade level.

The experimental group included five students. One student was receiving special educational services as "visually handicapped." The other four students were receiving additional instruction under Response to Intervention (RTI) Tier 2 in Reading and Writing. Three of the students were male, two female. One student was Asian, the others were Caucasian.

The control group included three students. Two of the students were male, one female. All three students were Caucasian. The three students were receiving additional instruction under Response to Intervention (RTI) Tier 2 in Reading in class using the Wilson Fundations.

Procedure

Prior to implementation of the intervention, baseline data was collected on the students. This data included their reading level, sight word recognition, and the STAR Assessment in Reading. The eight students in both the experimental and control group each completed a Fountas and Pinnell Benchmark System assessment to determine their reading level. When administering the benchmark, students read a book that was appropriate for their level. While the students were reading, a running record was completed based on the students oral reading. After the students were finished reading they then answered comprehension questions. The comprehension questions about information that is within the text and beyond the text, and about the text. An example from Level E's Fountas and Pinnell's Benchmark assessment comprehension questions

titled "The Zoo," consist of questions from within the text- "What did you learn about the animals at the zoo? What else did you learn?; beyond and about the text- Why do people like to go to the zoo?" and "How does the author help you learn about animals at the zoo?" The students were also tested on Dolch sight words (Pre-primer, Primer, 1st Grade and 2nd Grade) as well as being assessed using The STAR Assessments (Standardized Test for the Assessment of Reading created by Renaissance Learning, Inc.) which are short tests that are given on the computer. The questions adjusted to each answer the child provides. The STAR Reading Assessment assess each student's reading skill and provides an approximate measure of each students' reading level as grade equivalency.

According to the Response to Intervention (RTI) program in place at the school, intervention is implemented over a 7-8 week period with a 1 week data review. The students who were involved in the experimental group in this study met three to four times a week using the Fountas and Pinnell's *Leveled Literacy Intervention* (LLI) as well as receiving their regular education program. The students worked in 2 small groups. When using LLI, the lessons were designed sequentially by odd and even-numbers. Each lesson was comprised of four parts with additional support at the end of each lesson. When using the odd numbered lessons, students reread the new book from the previous lesson, engaged in phonics/word work practice, were introduced to a new book, and completed letter/word work practice. When using the even numbered lessons, students reread the book from the previous lesson and were assessed using the using Leveled Literacy Intervention Running Record, engaged in phonics/word work practice, wrote about the book they read, were introduced to a new book, and completed optional

letter/word work practice. The main focus of the even numbered lessons was on writing by extending the meaning, phonics, word work, and fluency (Fountas & Pinnell, 2010).

Variables

The independent variable in the study was the *Leveled Literacy Intervention*Program. This intervention was used as a supplement to the regular education program to improve the reading performance for students who are reading below age level. The dependent variable in the study was students' reading scores as measured by the LLI Assessment. Before moving to the next benchmark level, students were assessed using the Fountas and Pinnell Benchmark Assessment System to see if they are independent in that level and were able to move on to the next level. Students were also tested monthly on the their Dolch Sight Words, and tested beginning of the year and midyear for STAR Assessments. The Star Assessments are short tests that are given on the computer. The questions adjusted to each answer the child provided.

Method

The study utilized a two group, experimental-control group, design. The difference between the pretest and posttest scores for each group were compared to measure the amount of change occurring as a result of interventions. The experimental group received instruction using the *Leveled Literacy Intervention* program. The control group received the standard reading program called Literacy by Design and small group phonics using Wilson Fundations. Both the experimental and control group received instruction three to four times a week. The students in the experimental group who received the *Leveled Literacy Intervention* program, the lessons were designed sequentially by odd and even numbers and was comprised of four parts with additional

support at the end of each lesson. When using the odd number lessons, students reread the new book from the previous lesson, phonics/word work practice, introduction of new book, and letter/word work practice. When using the even number lessons, students reread book/assessment, phonics/word work practice, writing about reading, introduce new book, and optional letter/word work practice. The main focus of the even number lessons was on writing by extending the meaning, phonics, word work, and fluency (Fountas & Pinnell, 2010). The students in the control group received Literacy by Design and small group phonics instruction using Wilson Fundations. Both the experimental and control group received the same amount of in-class reading time.

Chapter 4

Results

Summary

In this two group, experimental-control group design, the effects of using a leveled literacy program as a supplemental program to give students the tools and strategies to help improve their reading skills was evaluated. Eight students participated in the study, with five students receiving the intervention and three students acting as a control group. The intervention implemented was the *Leveled Literacy Intervention* program. The research question to be answered was:

1. Can the implementation of a leveled literacy program as a supplement to their regular education program improve the reading performance of students with below age-level reading performance?

The study began with students completing pretest assessments prior to implementation of the intervention. This data includes their reading level, sight word recognition of Dolch Sight Words, and the STAR Assessment in Reading.

Group Results

Table 1 shows the pretest and posttest scores for the intervention and control groups for sight word recognition of Dolch Sight Words, Guided Reading Level, and the STAR Assessment in Reading for each student as well as a the mean scores for the groups as a whole.

Table 1

Pretest and Posttest Results for Dolch Sight Words, Guided Reading Level, and the STAR Assessment.

Participant	Dolch Sight Words (Percentage)		Guided Reading Level (Instructional)		STAR Assessment (Grade Equivalent)		Difference Between Pretest and Posttest		
	Pretest	Posttest	Pretest	Posttest	Pretest	Posttest	Sight Words	Guided Reading Level	Star Assessment
1 - Intervention	Pre-Primer: 90% Primer: 87% 1st Grade: 61% 2nd Grade: 35%	Pre-Primer: 100% Primer: 96% 1st Grade: 93% 2nd Grade: 91%	D	G	1.2	1.5	Pre-Primer: +10% Primer: +9% 1st Grade: +32% 2nd Grade: +56%	3	0.3
2 - Intervention	Pre-Primer: 88% Primer: 54% 1st Grade: 0% 2nd Grade: 0%	Pre-Primer: 98% Primer: 87% 1st Grade: 83% 2nd Grade: 63%	D	G	0.8	1.6	Pre-Primer: +10% Primer: +33% 1st Grade: +83% 2nd Grade: +63%	3	0.8
3 - Intervention	Pre-Primer: 93% Primer: 69% 1st Grade: 34% 2nd Grade: 26%	Pre-Primer: 100% Primer: 98% 1st Grade: 78% 2nd Grade: 72%	D	Н	0.8	1.2	Pre-Primer: +7% Primer: +29% 1st Grade: +44% 2nd Grade: +46%	4	0.4
4 - Intervention	Pre-Primer: 95% Primer: 87% 1st Grade: 73% 2nd Grade: 61%	Pre-Primer: 98% Primer: 98% 1st Grade: 88% 2nd Grade: 89%	D	Н	0.7	1.5	Pre-Primer: +3% Primer: +11% 1st Grade: +15% 2nd Grade: +28%	4	0.8
5 - Intervention	Pre-Primer: 98% Primer: 73% 1st Grade: 66% 2nd Grade: 67%	Pre-Primer: 100% Primer: 94% 1st Grade: 95% 2nd Grade: 93%	D	Н	1.1	1.9	Pre-Primer: +2% Primer: +21% 1st Grade: +29% 2nd Grade: +26%	4	0.8
6 - Control	Pre-Primer: 90% Primer: 52% 1st Grade: 32% 2nd Grade: 26%	Pre-Primer: 93% Primer: 90% 1st Grade: 73% 2nd Grade: 72%	D	F	0.8	1.4	Pre-Primer: +3% Primer: +38% 1st Grade: +41% 2nd Grade: +46%	2	0.6
7 - Control	Pre-Primer: 70% Primer: 32% 1st Grade: 44% 2nd Grade: 0%	Pre-Primer: 92% Primer: 75% 1st Grade: 68% 2nd Grade: 61%	D	F	0.4	1.0	Pre-Primer: +22% Primer: +43% 1st Grade: +24% 2nd Grade: +61%	2	0.6
8 - Control	Pre-Primer: 78% Primer: 44% 1st Grade: 32% 2nd Grade: 26%	Pre-Primer: 98% Primer: 85% 1st Grade: 76% 2nd Grade: 68%	D	Е	0.8	1.2	Pre-Primer: +20% Primer: +41% 1st Grade: +44% 2nd Grade: +42%	1	0.4
MEAN	Pre-Primer: 88% Primer: 62% 1st Grade: 43% 2nd Grade: 30%	Pre-Primer: 97% Primer: 90% 1st Grade: 82% 2nd Grade: 76%	D	G	0.8	1.4	Pre-Primer: +11% Primer: +28% 1st Grade: +39% 2nd Grade: +46%	3	0.6

The Dolch Sight Words in Pre-Primer, Primer, 1st Grade, and 2nd Grade was calculated with a percentage score. The Guided Reading Level was calculated by their instructional level. The STAR Assessment was calculated by grade equivalency. A mean was calculated from each section.

In examining the Dolch Sight Words with the experimental group, the results for the group showed students identifying the words at each level with a mean score for the pretest of Pre-primer: 92.8%, Primer: 74%, 1st Grade: 46.8%, and 2nd Grade: 37.8%. In the posttest the overall mean increased to Pre-primer: 99.2%, Primer: 94.6%, 1st Grade: 87.4%, and 2nd Grade: 81.6%. In examining the Dolch Sight Words with the control

group, the results for the group showed students identifying the words at each level with a mean score for the pretest of Pre-primer: 79.3%, Primer: 42.6%, 1st Grade: 36%, and 2nd Grade: 17.3%. In the posttest the overall mean increased to Pre-primer: 94.3%, Primer: 83.3%, 1st Grade: 72.3%, and 2nd Grade: 67%. In examining Dolch Sight Words, the results for the overall group showed students identifying the words at each level with a mean score for the pretest of Pre-Primer: 88%, Primer: 62%, 1st Grade: 43%, and 2nd Grade: 30%. In the posttest, the overall mean increased to Pre-Primer: +11%, Primer: +28%, 1st Grade: +39%, and 2nd Grade: +46%.

The results for the overall group showed a pretest of the instructional Guided Reading Level was D. In the posttest, the overall mean showed an increase of three Guided Reading Levels. In examining STAR Assessment in Reading the results for the overall group showed a pretest of a grade equivalency 0.8. In the posttest, the overall mean increased to grade equivalent 1.4. All eight participants improved in their sight word identification of Dolch Sight Words, Guided Reading Level, and grade equivalency in the STAR Assessment in Reading.

Individual Results

Figure 3 illustrates the results of Participant 1 on sight word knowledge using the Dolch Sight Words for Pre-Primer, Primer, 1st Grade, and 2nd Grade. These results show the pretest, monthly assessments, and posttest. The participant increased knowledge of sight words with 10% for Pre-Primer Sight Words, 9% for Primer Sight Words, 32% for 1st Grade Sight Words, and 56% in 2nd Grade Sight Words. Figure 4 illustrates the results for Participant 1 on the LLI Data Management Report. For the pretest, the instructional level for the Guided Reading Level was a D. During the intervention phase,

the participant showed instructional and independent guided reading. In the posttest, the participant increased three reading levels, ending with an instructional Guided Reading Level G. Figure 5 illustrates the results for Participant 1 for grade equivalency on the STAR Assessment for the pretest and posttest. In the pretest, Participant 1 scored a grade equivalent of 1.2. In the posttest, Participant 1 increased 0.3 with an end result of a grade equivalency of 1.5.

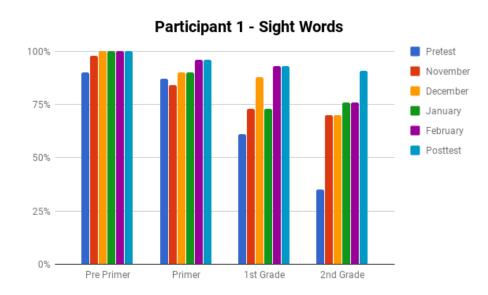


Figure 3. Participant 1 Sight Words

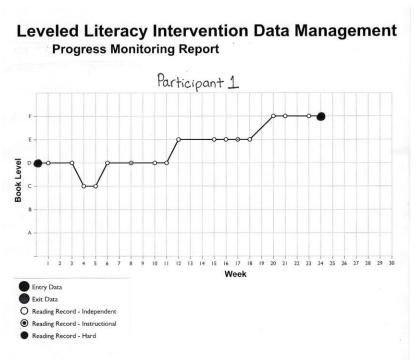


Figure 4. Participant 1 LLI Data Management Report

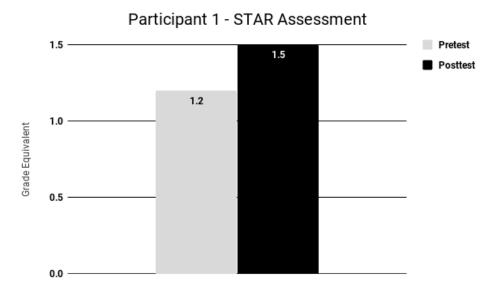


Figure 5.Participant 1 STAR Assessment

Figure 6 illustrates the results of Participant 2 on sight word knowledge using the Dolch Sight Words for Pre-Primer, Primer, 1st Grade, and 2nd Grade. These results show the pretest, monthly assessments, and posttest. The participant increased knowledge of sight words with 10% for Pre-Primer Sight Words, 33% for Primer Sight Words, 83% for 1st Grade Sight Words, and 63% in 2nd Grade Sight Words. Figure 7 illustrates the results for Participant 2 on the LLI Data Management Report. For the pretest, the instructional level for the Guided Reading Level was a D. During the intervention phase, the participant showed instructional and independent guided reading. In the posttest, the participant increased three reading levels, ending with an instructional Guided Reading Level G. Figure 8 illustrates the results for Participant 2 for grade equivalency on the STAR Assessment for the pretest and posttest. In the pretest, Participant 2 scored a grade equivalent of 0.8. In the posttest, Participant 2 increased 0.8 with an end result of a grade equivalency of 1.6.

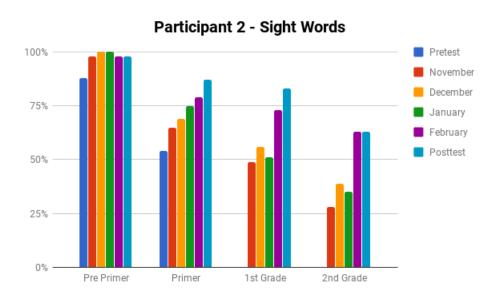


Figure 6. Participant 2 Sight Words

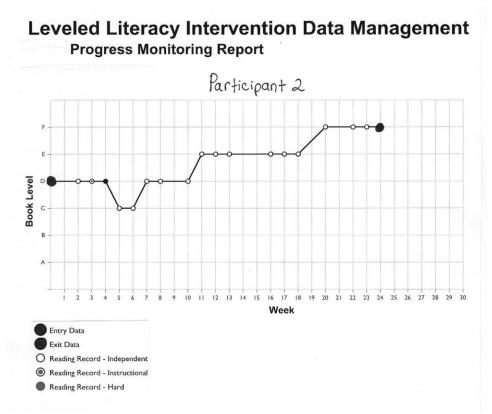


Figure 7. Participant 2 LLI Data Management Report

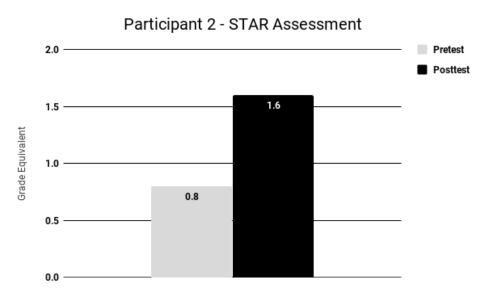


Figure 8. Participant 2 STAR Assessment

Figure 9 illustrates the results of Participant 3 on sight word knowledge using the Dolch Sight Words for Pre-Primer, Primer, 1st Grade, and 2nd Grade. These results show the pretest, monthly assessments, and posttest. The participant increased knowledge of sight words with 7% for Pre-Primer Sight Words, 29% for Primer Sight Words, 44% for 1st Grade Sight Words, and 46% in 2nd Grade Sight Words. Figure 10 illustrates the results for Participant 3 on the LLI Data Management Report. For the pretest, the instructional level for the Guided Reading Level was a D. During the intervention phase, the participant showed instructional and independent guided reading. In the posttest, the participant increased four reading levels, ending with an instructional Guided Reading Level H. Figure 11 illustrates the results for Participant 3 for grade equivalency on the STAR Assessment for the pretest and posttest. In the pretest, Participant 3 scored a grade equivalent of 0.8. In the posttest, Participant 3 increased 0.4 with an end result of a grade equivalency of 1.2.

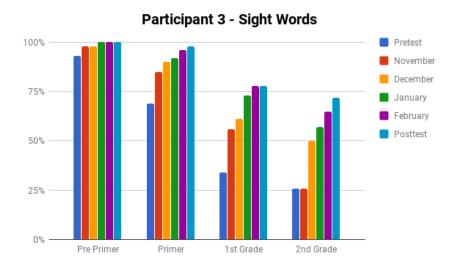


Figure 9. Participant 3 Sight Words

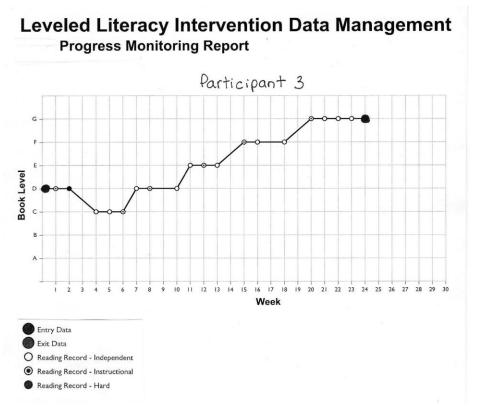


Figure 10. Participant 3 LLI Data Management Report

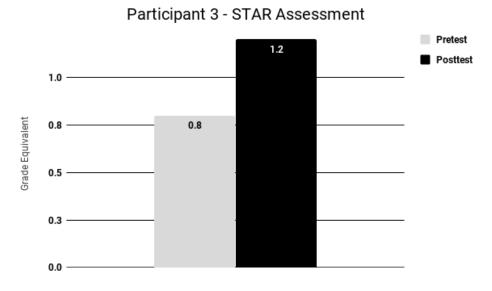


Figure 11. Participant 3 STAR Assessment

Figure 12 illustrates the results of Participant 4 on sight word knowledge using the Dolch Sight Words for Pre-Primer, Primer, 1st Grade, and 2nd Grade. These results show the pretest, monthly assessments, and posttest. The participant increased knowledge of sight words with 3% for Pre-Primer Sight Words, 11% for Primer Sight Words, 15% for 1st Grade Sight Words, and 28% in 2nd Grade Sight Words. Figure 13 illustrates the results for Participant 4 on the LLI Data Management Report. For the pretest, the instructional level for the Guided Reading Level was a D. During the intervention phase, the participant showed instructional and independent guided reading. In the posttest, the participant increased four reading levels, ending with an instructional Guided Reading Level H. Figure 14 illustrates the results for Participant 4 for grade equivalency on the STAR Assessment for the pretest and posttest. In the pretest, Participant 4 scored a grade equivalency of 1.5.

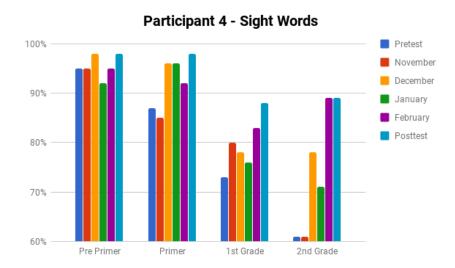


Figure 12. Participant 4 Sight Words

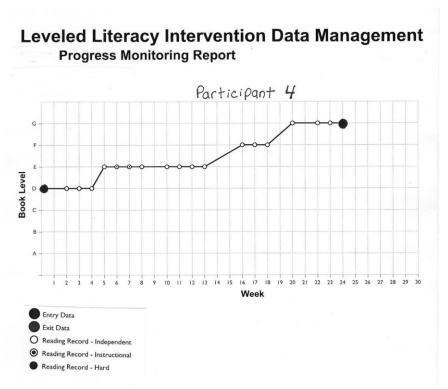


Figure 13. Participant 4 LLI Data Management Report



Figure 14. Participant 4 STAR Assessment

Figure 15 illustrates the results of Participant 5 on sight word knowledge using the Dolch Sight Words for Pre-Primer, Primer, 1st Grade, and 2nd Grade. These results show the pretest, monthly assessments, and posttest. The participant increased knowledge of sight words with 2% for Pre-Primer Sight Words, 21% for Primer Sight Words, 29% for 1st Grade Sight Words, and 26% in 2nd Grade Sight Words. Figure 16 illustrates the results for Participant 5 on the LLI Data Management Report. For the pretest, the instructional level for the Guided Reading Level was a D. During the intervention phase, the participant showed instructional and independent guided reading. In the posttest, the participant increased four reading levels, ending with an instructional Guided Reading Level H. Figure 17 illustrates the results for Participant 5 for grade equivalency on the STAR Assessment for the pretest and posttest. In the pretest, Participant 5 scored a grade equivalency of 1.9.

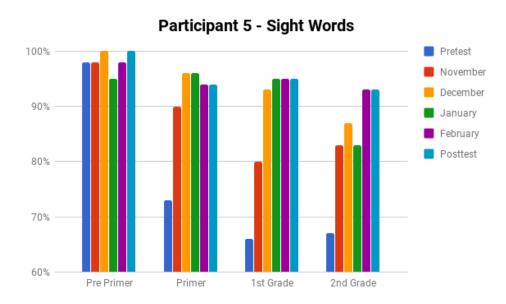


Figure 15. Participant 5 Sight Words

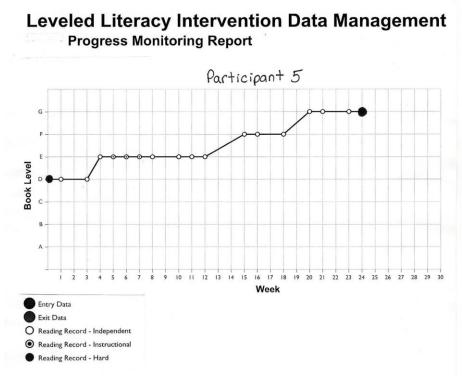


Figure 16. Participant 5 LLI Data Management Report

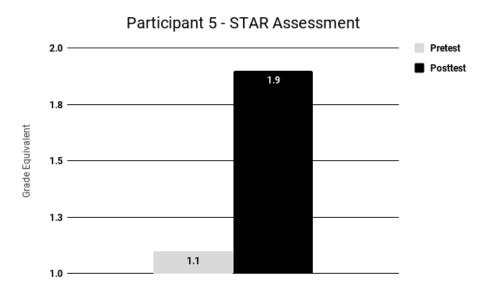


Figure 17. Participant 5 STAR Assessment

Figure 18 illustrates the results of Participant 6 on sight word knowledge using the Dolch Sight Words for Pre-Primer, Primer, 1st Grade, and 2nd Grade. These results show the pretest and posttest. The participant increased knowledge of sight words with 3% for Pre-Primer Sight Words, 38% for Primer Sight Words, 41% for 1st Grade Sight Words, and 46% in 2nd Grade Sight Words. Figure 19 illustrates the results for Participant 6 on their Guided Reading Levels. For the pretest, the instructional level for the Guided Reading Level was a D. In the posttest, the participant increased two reading levels, ending with an instructional Guided Reading Level F. Figure 20 illustrates the results for Participant 6 for grade equivalency on the STAR Assessment for the pretest and posttest. In the pretest, Participant 6 scored a grade equivalent of 0.8. In the posttest, Participant 6 increased 0.6 with an end result of a grade equivalency of 1.4.

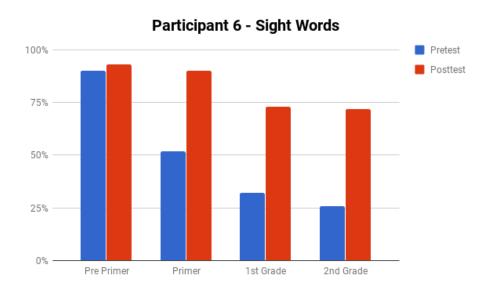


Figure 18. Participant 6 Sight Words

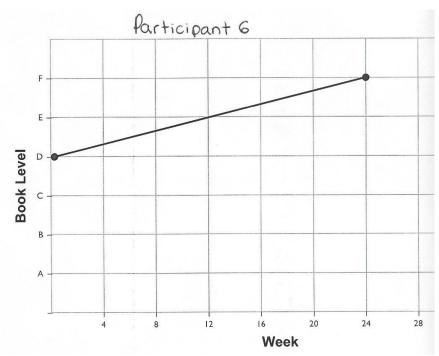


Figure 19. Participant 6 Guided Reading Levels

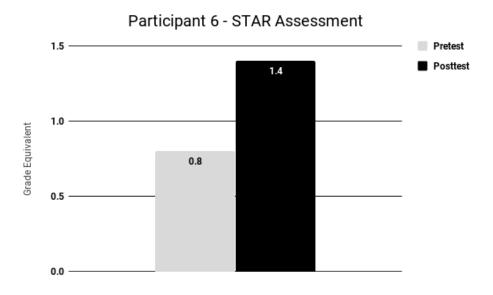


Figure 20. Participant 6 STAR Assessment

Figure 21 illustrates the results of Participant 7 on sight word knowledge using the Dolch Sight Words for Pre-Primer, Primer, 1st Grade, and 2nd Grade. These results show the pretest and posttest. The participant increased knowledge of sight words with 22% for Pre-Primer Sight Words, 43% for Primer Sight Words, 24% for 1st Grade Sight Words, and 61% in 2nd Grade Sight Words. Figure 22 illustrates the results for Participant 7 on their Guided Reading Levels. For the pretest, the instructional level for the Guided Reading Level was a D. In the posttest, the participant increased two reading levels, ending with an instructional Guided Reading Level F. Figure 23 illustrates the results for Participant 7 for grade equivalency on the STAR Assessment for the pretest and posttest. In the pretest, Participant 7 scored a grade equivalent of 0.4. In the posttest, Participant 7 increased 0.6 with an end result of a grade equivalency of 1.0.

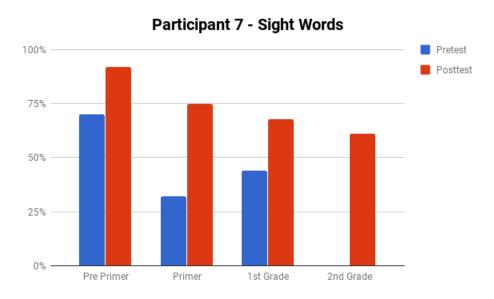


Figure 21. Participant 7 Sight Words

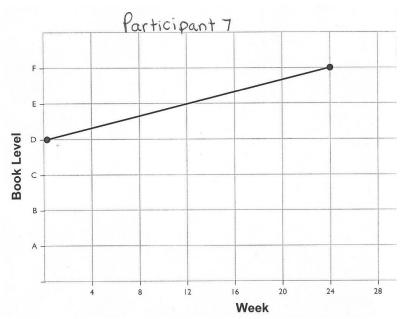


Figure 22. Participant 7 Guided Reading Levels

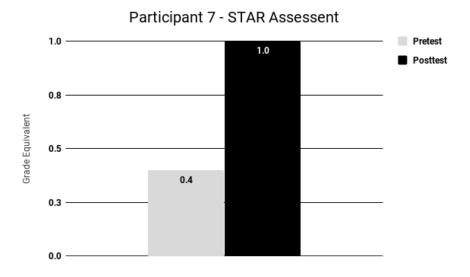


Figure 23. Participant 7 STAR Assessment

Figure 24 illustrates the results of Participant 8 on sight word knowledge using the Dolch Sight Words for Pre-Primer, Primer, 1st Grade, and 2nd Grade. These results show the pretest and posttest. The participant increased knowledge of sight words with 20% for Pre-Primer Sight Words, 41% for Primer Sight Words, 44% for 1st Grade Sight Words, and 42% in 2nd Grade Sight Words. Figure 25 illustrates the results for Participant 8 on their Guided Reading Levels. For the pretest, the instructional level for the Guided Reading Level was a D. In the posttest, the participant increased one reading level, ending with an instructional Guided Reading Level E. Figure 26 illustrates the results for Participant 8 for grade equivalency on the STAR Assessment for the pretest and posttest. In the pretest, Participant 8 scored a grade equivalent of 0.8. In the posttest, Participant 8 increased 0.4 with an end result of a grade equivalency of 1.2.

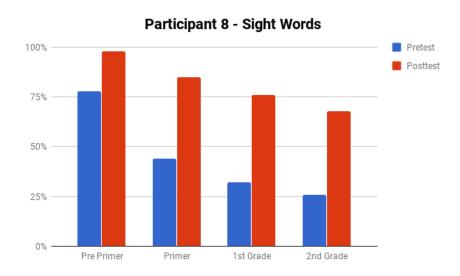


Figure 24. Participant 8 Sight Words

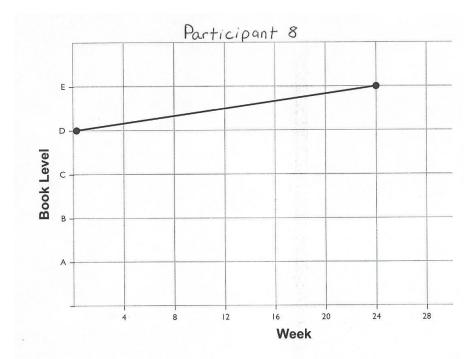


Figure 25. Participant 8 Guided Reading Levels



Figure 26. Participant 8 STAR Assessment

Chapter 5

Discussion

For this study, the research question being asked was, can the implementation of a leveled literacy program as a supplemental to the students regular education improve the reading performance of students with below age-level reading performance? The study used a two group, experimental-control group design to show if students who received the intervention showed growth compared to the students who did not receive the intervention. Students completed pretest and posttest assessments on their reading level, sight word recognition of Dolch Sight Words, and the STAR Assessment in Reading.

In examining the Dolch Sight Words with the experimental group, the results indicated that students increased their sight word recognition at all levels (pre-primer, primer, 1st grade, and 2nd grade). In examining the Dolch Sight Words with the control that students increased their sight word recognition at all levels. The percentage of sight word recognition for the experimental group increased more than the control group. The percentage difference are as follows: Pre-primer: 4.9%, Primer: 11.3%, 1st Grade: 15.1%, and 2nd Grade: 14.6%. Thus, the experimental group showed a greater sight word recognition on this measure of reading skills.

In examining the STAR Assessment in Reading, the results for the experimental group showed students with a mean score for the pretest of a grade equivalency of .9 and posttest of a grade equivalency of 1.5. In examining the STAR Assessment in Reading, the results for the control group showed students with a mean score for the pretest of a

grade equivalency of .6 and posttest of a grade equivalency of 1.2. Thus, the experimental group showed a greater increase on this measure of reading skills.

In examining the instructional Guided Reading Level, all students in both the experimental and control groups had a pretest score of Level D. The results for the experimental group showed out of five students, two students increased three levels ending in Level G, and three students increased four reading levels ending in Level H. The results for the control group showed out of three students, one student increased one level ending in Level E, and two students increased two reading levels ending in Level F.

The study determined that the students who received LLI made more progress in literacy compared to students who only received regular classroom literacy instruction and were eligible for the *Leveled Literacy Intervention* program. This study also showed that LLI was effective with ELL students and Special Education Students. Across the five students, when using the Fountas and Pinnell Benchmark Assessment students who used LLI achieved three to four benchmark levels, while students who did not receive LLI achieved one to three benchmark levels. The *Leveled Literacy Intervention* program was found to be a highly effective program and had a significant difference in reading growth.

Previous Research

Past studies show how the implementation of a *Leveled Literacy Intervention* program is an effective intervention. Archived data pertaining to K-2 students participating in LLI intervention was analyzed through research. Research (Ransford-Kaldon, 2010 and Ransford-Kaldon, 2013) of both studies indicated that Leveled Literacy Intervention (LLI) had a positive effect on reading achievements. Ransford-Kaldon, et. al. conducted a study focused on the implementation and impact of using LLI

in 2009-2010 school year (2010). The study took place at Tift County Schools in Georgia and Enlarged City School District in Middletown, New York. Tift County Schools is a rural school district with primarily White and African American populations. More than half of the participants were identified as "economically disadvantaged." In this study five elementary schools were included, with twenty one K-2 teachers trained and 209 students who participated. Enlarged City School District is a suburban school district that serves primarily Hispanic and African American populations. More than half of the participants were identified as "economically disadvantaged." In this study four elementary schools were included, with seven K-2 teachers trained and 218 students who participated. This study was a randomized controlled trial that used mixed-method designs with quantitative and qualitative data. The students were selected randomly in the 1st semester, and in a controlled condition for the 2nd semester. The study determined that LLI positively impacted K-2 students in literacy achievements in both rural and suburban settings. It also showed that it was effective with ELL students, Special Education students, and minority students. It showed a positive effect with children who are "economically disadvantaged." When looking at the literacy achievement results showed that students who received LLI made significant progress in literacy compared to students who only received regular classroom literacy instruction and were eligible for LLI. Ransford-Kaldon, et. al. conducted another study on the implementation and impact of using LLI in 2011-2012 school year (2013). This study took place with K-2 students in 13 urban schools in Denver, Colorado. The population consisted of primarily minority and "economically disadvantaged" participants. 163 students were in the LLI group and 157 students were in the comparison group. The comparison group could receive any

other literacy intervention that was available at any of the participating schools. The results from this study showed the LLI had a positive effect on reading achievements and potentially positive effects on reading fluency. When examining the results compared to previous research, the research I found on using the *Leveled Literacy Intervention* program all concluded that using LLI has shown improvements with their students reading levels.

Conclusion

The current study indicates that the *Leveled Literacy Intervention* program is an effective program and should be used by classroom teachers, special education teachers, as well as reading teachers in the school district. LLI had proven to be successful in giving students the tools and strategies to help improve their reading skills. However, LLI is sometimes hard to implement due to the amount of time is needed for each group as well as the additional time students should be with a teacher for their regular literacy program. It is also a hard with the taking groups on certain days especially when there are school activities during that time, and also for when there are days off due to snow days, professional days, and holidays.

The results of the present study indicate that the implementation of a leveled literacy program as a supplemental to the students regular education can improve the reading performance of students with below age-level reading performance compared to students who did not receive the intervention has been answered. This intervention should remain and continue to be used to make sure that all students are given the chance to be successful in their reading and also given the tools and strategies to ensure their success.

References

- Cassidy, J., Ortlieb, E., & Grote-Garcia, S. (2016). Beyond the Common Core: Examining 20 years of literacy priorities and their impact on struggling readers. Literacy Research and Instruction, 55(2), 91–104. doi:10.1080/19388071.2015.1136011
- Erwin, D. (2015). The efficacy of leveled literacy intervention with struggling first and second grade readers (Order No. 1601031). Available from ProQuest Dissertations & Theses Global. (1733679887). Retrieved from http://ezproxy.rowan.edu/login?url=https://search.proquest.com/docview/1733679887?accountid=13605
- Eunice Kennedy Shriver National Institute of Child Health and Human Development, NIH, DHHS. (2001). *Put Reading First: The Research Building Blocks for Teaching Children to Read*. Washington, DC: U.S. Government Printing Office.
- Fountas, I. C., Pinnell, G. S. (2010). Fountas & Pinnell benchmark assessment system 1. Grades K-2, levels A-N. Portsmouth, NH: Heinemann.
- Fountas, I. C., Pinnell, G. S. (2009). *When readers struggle: Teaching that works*. Portsmouth, NH: Heinemann.
- Fountas, I. C., Pinnell, G. S., & Heinemann. (2009). Fountas & Pinnell leveled literacy intervention. Portsmouth, NH: Heinemann.
- Mertes, L. (2015). Leveled literacy intervention and supports for english language learners (Order No. 3700653). Available from ProQuest Dissertations & Theses Global. (1680271345). Retrieved from http://ezproxy.rowan.edu/login?url=https://search.proquest.com/docview/1680271345?accountid=13605
- Odell, K. (2012). The effects of Fountas & Pinnell's leveled literacy intervention on kindergarten students reading below grade level. Unpublished manuscript, Educational Leadership Faculty, Northwest Missouri State University Missouri, Maryville, MO.

- Ransford-Kaldon, C., Flynt, E S., Ross, C. L., Franceschini, L., Zoblotsky, T., Huang, Y., & Gallagher, B. (2010). *Implementation of effective intervention: An empirical study to evaluate the efficacy of Fountas & Pinnell's Leveled Literacy Intervention System (LLI)*. Memphis, TN: Center for Research in Educational Policy, University of Memphis.
- Ransford-Kaldon, C., Ross, C., Lee, C., Sutton Flynt, E., Franceschini, L., & Zoblotsky, T. (2013). *Efficacy of the Leveled Literacy Intervention System for K-2 urban students: An empirical evaluation of LLI in Denver Public Schools*. Memphis, TN: Center for Research in Educational Policy, University of Memphis.
- Sailor, Wayne. Making RTI Work: How Smart Schools are Reforming Education through Schoolwide Response-to-Intervention, Wiley, 2009. ProQuest Ebook Central, https://ebookcentral.proquest.com/lib/rowan/detail.action?docID=469865.
- Vernon-Feagans, L., Gallagher, K., Ginsberg, M. C., Amendum, S., Kainz, K., Rose, J., & Burchinal, M. (2010). A diagnostic teaching intervention for classroom teachers: Helping struggling readers in early elementary school. *Learning Disabilities Research & Practice*, 25(4), 183-193. doi:10.1111/j.1540-5826.2010.00316.x