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Summer Reading Loss: A Mixed-Methods Study of Parent Development and Home-Based Summer Reading

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Summer Reading Loss: A Mixed-Methods Study of Parent Development and Home-
Based Summer Reading

By
Morgan V. Blanton

A Dissertation Submitted to the
Gardner-Webb University School of Education
in Partial Fulfillment of the Requirements
for the Degree of Doctor of Education

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Approval Page

This dissertation was submitted by Morgan V. Blanton under the direction of the persons listed below. It was submitted to the Gardner-Webb University School of Education and approved in partial fulfillment of the requirements for the degree of Doctor of Education at Gardner-Webb University.

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Abstract

Investigating Summer Reading Loss: A Mixed-Methods Study of Parent Development and Home-Based Summer Reading. Blanton, Morgan, 2013: Dissertation, Gardner-Webb University, Summer Reading Loss/Oral Reading Fluency/Parent Development/Literacy/Title I

This dissertation utilized a mixed-methods, quasi-experimental design to investigate the impact of parent development on rising third graders' summer reading losses as measured by the difference in May and August oral reading fluency scores. Title I parents and students from three schools in a rural North Carolina school district participated in a parent development session that focused on reading strategies to use at home. Parents and Title I teachers were in contact during the summer via telephone or face-to-face and students kept a reading log in order to collect data regarding reading routines. Quantitative data were collected using a pretest/posttest method using the end-of-year second-grade oral reading fluency assessment using Dynamic Indicators of Basic Early Literacy Skills (DIBELS Next). Quantitative data from reading logs and questionnaires were also used to analyze the impact of parent development and a home-based summer reading program on summer reading loss as measured by oral reading fluency (rate). Qualitative data were collected from questionnaires, parent contact logs, and reading logs. Quantitative and qualitative methods (QUAN-qual) were used to collect and analyze data in order to answer four research questions: (1) What is the impact of the parent development seminar on parents' abilities to demonstrate mastery of reading strategies? (2) What is the impact of summer reading volume (number of books initially and repeatedly read) on summer reading loss as measured by the difference in May and August oral reading fluency scores? (3): What is the impact of reading strategies (echo, NIM, shared, and repeated readings) on summer reading loss as measured by the difference in May and August oral reading fluency scores? (4) What is the impact of parent development and home-based summer reading on summer reading loss as measured by the difference in May and August oral reading fluency scores? The researcher found that parent development and home-based summer reading had a positive impact on struggling readers' (red zone) and home literacy routines. This study also found that repeated readings (within the same day) and face-to-face communication were effective strategies to target summer reading loss. Recommendations for future research include a larger sample size and a focus on the type of parent communication students receive (face-to-face or telephone). Additional recommendations include revisions to the reading log to emphasize repeated readings and to improve self-reporting methods.

Table of Contents

	Page
Chapter 1: Introduction	1
Topic	1
An Overview of the Research Problem	2
Setting	4
Statement of the Research Problem	5
Audience	7
Purpose of the Study	9
Research Questions	11
Definition of Terms	12
Chapter 2: Review of Literature	15
Introduction	15
Conceptual Framework	17
Synthesis of Findings	21
Deficiencies in the Evidence	38
Need for Further Research	39
Chapter 3: Methodology	41
Introduction	41
Participants	42
Instruments	47
Instructional Design	53
Research Design	63
Data Collection and Analysis Procedures	66
Chapter 4: Results	73
Introduction	73
Research Questions	73
Participants	74
Findings of the Study	80
Summary	118
Chapter 5: Conclusion	119
Introduction	119
Research Questions	119
Summary of the Study	120
Interpretation of Findings	123
Limitations	131
Recommendations	133
Summary	134
References	136
Appendices	
A Needs Assessment (Parent Survey)	142
B Criteria Sheets	145
C Needs Assessment (Title I teachers)	148
D A Logic Model Flow Chart	150
E Self-Assessment Rubric	152
F Sample Reading Log (Week Two)	154

G	Title I Teacher-Parent Contact Log	156
H	Questionnaires.....	158
I	Email from Title I Teacher at Compassion Elementary School	164
J	Revised Summer Reading Log (excerpt).....	166
Tables		
1	National ORF Norms 2006 (mean)	5
2	Local ORF Norms 2012 (mean)	6
3	Key Terms.....	13
4	Economically Disadvantaged Students at Participating Schools.....	45
5	Percent Proficient in Math and Reading	45
6	Learning Objectives	59
7	Proposed Parent Development Seminar Agenda	61
8	Research Questions, Instruments, and Analysis Alignment	71
9	Participants by School.....	75
10	Participant Pretest/Posttest Scores, Differences, and Hasbrouck's ORF Zones	78
11	Participant's Average Weekly Reading Volume and Reading Volume Code	84
12	Shapiro-Wilk Tests of Normality.....	85
13	Paired Samples Statistics (Treatment Group)	86
14	Paired Samples Test (Treatment Group).....	86
15	Paired Samples Statistics (Red Treatment Group)	87
16	Paired Samples Test (Red Treatment Group)	87
17	Paired Samples Statistics (Green Treatment Group)	88
18	Paired Samples Test (Green Treatment Group)	88
19	Shapiro-Wilk Tests of Normality (Control Group)	89
20	Paired Samples Statistics (Control Group)	90
21	Paired Samples Test (Control Group)	90
22	One-way ANOVA (by Hasbrouck Zone)	91
23	One-way ANOVA (Weekly Book Volume Code)	93
24	One-way ANOVA (Total Books Read).....	93
25	"Home Literacy Routines" Related Responses from Questionnaires and Contact Logs	96
26	"Contact with the Teacher" Related Responses from Questionnaires and Contact Logs	97
27	"Motivation" Related Responses from Questionnaire and Contact Logs.....	98
28	"Access to Books" Related Responses from Questionnaires and Contact Logs	99
29	Reading Strategies (per week) and Repeated Readings (total).....	101
30	One-way ANOVA (Strategy Usage Code)	103
31	One-way ANOVA (Daily Repeated Readings Recorded).....	103
32	"Motivation" Related Responses from the Questionnaires and Contact Logs.....	105
33	"Parental Support" Related Responses from the Questionnaires and Contact Logs	106
34	One-way ANOVA (Treatment and Control Differences).....	108
35	One-way ANOVA (Parent Self-Assessment Code)	109

36	One-way ANOVA (Total Parent Contacts)	109
37	One-way ANOVA (Type of Parent Contact).....	111
38	“Home Literacy Routines” Related Responses from Questionnaires and Contact Logs	114
Figures		
1	A Logic Model.....	10
2	Chall’s Stages of Reading Development	19
3	Instructional Design Model.....	29
4	Word Cloud Example (Chapter 3 Introduction)	51
5	Gambrell’s Seven Rules of Engagement	56
6	Regression-Discontinuity Research Design Model	65
7	Participants by Hasbrouck’s Zones.....	79
8	Pretest/Posttest Difference – Green Treatment Subgroup	79
9	Pretest/Posttest Differences – Red Treatment Group	80
10	Pretest/Posttest Differences – Control Group	80
11	Parent Self-Assessment Scores (by strategy).....	82
12	Weekly Book Volume (by code)	83
13	Pretest/Posttest Normal Q-Q Plot of Difference.....	84
14	Pretest/Posttest Boxplot (Treatment Group).....	85
15	Pretest/Posttest Normal Q-Q Plot of Differences (Control Group)	89
16	Stem-and-Leaf Plots.....	91
17	Summer Reading Loss and Daily Repeated Readings Recorded	102
18	Differences in Pretest/Posttest and Types of Parent Communication	110
19	Differences in Pretest/Posttest Scores (Treatment and Control Groups).....	111
20	Word Cloud of Written Responses on Questionnaires	115
21	“Greatest Impact” Responses from the Questionnaires	116

Chapter 1: Introduction

Throughout the school year, teachers, students, and parents work together to reach a common goal. After 180 school days of practice and formal instruction, it is disheartening to know that after an 8-week summer vacation, many students from low socioeconomic families will have regressed up to 3 months of learning gained during the previous school year when they return in the fall (Mraz & Rasinski, 2007). Over time, these months of regression can add up to years of reading loss, which can be even more detrimental to students already struggling academically (McGill-Franzen & Allington, 2001). In general, research has shown that economic status is not correlated with learning loss in math. Students from high- and low-income families lose approximately the same amount of math skills after summer vacation. However, in comparison to their higher-income age mates, there is a significant correlation in the loss of reading development for students living in low-income households (Cooper, 2003).

This is the case for rising third-grade students in schools located in a rural western North Carolina school district. The success of a literacy program at school depends on the literacy environment at home. Waldbart, Meyers, and Meyers (2006) suggested that involving parents is crucial and the most effective strategy is to train parents to use reading strategies that their children are working on at school (Morrow, Kuhn, & Schwaneflugel, 2006). This research study aimed to determine the impact of parent development on summer reading loss for rising third-grade Title I students in four of the district's schools.

Topic

Gambrell (2010) noted that students tend to score significantly higher on standardized tests at the beginning of summer vacation than they do at the end of the

break after being away from formal instruction. The *Matthew Effect* is evident in reading development, in that better readers tend to read more and, in turn, improve their reading as a result (Stanovich, 1986). Just as Matthew explained in the Bible that the “rich get richer and the poor become poorer,” the *reading rich* may become richer because they read more than the *reading poor*. Proficient readers are successful and have to expend less energy to complete the task. In the same regard, the reading poor may lose reading skills over the summer because they do not read very much because the act of reading is difficult and not as enjoyable.

In contrast, Morgan, Farkas, and Hibel (2008) noted that a one-sided Matthew Effect seems to be prevalent. Poor readers do not read as much due to their reading deficits and, therefore, the reading gap widens because they struggle to improve their reading due to low reading volume. Summer reading loss is most evident in the loss of reading development over other academic areas for low-income students due in part to lack of access to books during the summer (McGill-Franzen & Allington, 2001; Mraz & Rasinski, 2007).

An Overview of the Research Problem

Frequently, students who can least afford an academic setback return to school in the fall having lost more in reading than their classmates after an extended vacation from formal literacy instruction (Mraz & Rasinski, 2007). Research has shown that summer reading loss is quite significant for students from low-income families, such as in Title I schools, in comparison to their higher income counterparts (McGill-Franzen & Allington, 2001). These students could lose approximately 3 months of reading development each summer. This regression could result in 2 years of reading loss by the time they reach sixth grade (McGill-Franzen & Allington, 2001). By high school, the gap may have

widened to 3 or more years of reading loss, which is in addition to any deficits the students already have due to cognitive or circumstantial reasons.

It is logical to conclude that the Matthew Effect also impacts readers during the summer due to the varying levels of access students have to books (McGill-Franzen & Allington, 2001; Stanovich, 1986; Talada, 2007). Wealthier students have access to books at home and are able to travel to the local library or bookstore. Students living in lower-income families do not have a wide range of books at home, and transportation may be a barrier to overcome.

According to current research trends (Gambrell, 2010; Kim & White, 2011; Mraz & Rasinski, 2007), students tend to score lower on fall reading assessments than they do on spring assessments before summer vacation. More specifically relating to the research setting, the parents and teachers in focus schools want to solve the problem of summer reading loss as measured by DIBELS Next oral reading fluency (DORF) assessments. Oral reading fluency (ORF) is a valid indicator of reading development (Hasbrouck & Tindal, 2006; Therrien & Kubina, 2006); therefore, the loss of this skill indicates a loss of reading development.

ORF is the measure of how accurately and automatically one can read a text with appropriate expression and phrasing (Rasinski, 2000). Accuracy and automaticity are quantifiable measures, in that an assessor simply counts the number of words read correctly per minute. Prosody, which is the ability to read with conversation-like phrasing and expression, is measured more subjectively using checklists and/or rubrics (National Assessment of Educational Progress [NAEP], 2005). Measuring ORF is a better measure of reading comprehension than retelling, questioning, and cloze procedures (Therrien & Kubina, 2006). Talada (2007) noted a positive correlation

between students' ORFs and reading comprehensions and alluded to the Matthew Effect as it relates to fluency and comprehension. Talada suggested that the two skills have a reciprocal relationship, each fostering the development of the other. In a foundational report, Samuels (1979) described ORF development as a practice skill likened to musical or athletic skills. Just as a musician or athlete must practice to improve their performance skills, a reader must practice in order to improve their reading skills in order to make them automatic and effortless (Rasinski, Homan, & Biggs, 2009; Samuels). Talada explained that in order for the brain to devote cognitive efforts for comprehension, word calling must be effortless and not require significant mental attention.

Setting

This research study took place in four Title I elementary schools in a western North Carolina school district. The schools each feed into a different middle school and high school within the same school district. These schools were chosen for the study in order to have representation from each school zone in the district. There are four elementary schools per zone, and the participating schools were chosen based on recommendation and willingness to participate. Each school qualifies for Title I funds, although the schools' percentages of students who receive free and reduced lunch varies. This study utilized these percentages in order to further describe the degree to which the students reside in an economically disadvantaged community. A parent development workshop took place at each school in May or June. There was ongoing communication with parents during the summer months via telephone and face-to-face visits at the school library. Title I teachers at these schools served as subject matter experts and as unit instructors. They worked together with the researcher to implement an interactive parent development seminar specifically designed to target ORF and summer reading loss.

Statement of the Research Problem

According to national ORF norms (Hasbrouck & Tindal, 2006), the average first grader reads 53 correct words per minute in the spring and the average second grader reads 51 correct words per minute in the fall (see Table 1). That is a regression of two words over summer vacation. In this district, based on local norms (see Table 2), the average first grader reads 64 correct words per minute in the spring; however, the average second grader reads 62 correct words per minute in the fall. This is a regression of two words over summer vacation, which mirrors national data for rising second graders' oral reading rates. Nationally and locally, there is an even larger loss in ORF for rising third graders after summer vacation. Tables 1 and 2 indicate that rising third-grade students lose 18 correct words per minute (nationally). Locally, the average loss is nine correct words per minute. Regression in reading development over summer vacation is a national issue and, in this district, local data suggest that summer regression in ORF is a problem as well.

Table 1

National ORF Norms 2006 (mean)

Students	Spring of Previous Year	Fall of Current Year	Difference
Second graders	53	51	-2
Third graders	89	71	-18

Note. Mean scores indicate correct words read per minute (CWPM).

Table 2

Local ORF Norms 2012 (mean)

Students	Spring of Previous Year	Fall of Current Year	Difference
Second graders	64	62	-2
Third graders	97	88	-9

Note. Mean scores indicate correct words read per minute (CWPM).

Based on a previous survey of Title I teachers (see Appendix A) in the district, collected as a result of an annual Title I needs assessment at one of the schools, two main causes were associated with summer reading loss. The first possible contributing factor identified was the lack of parental involvement. According to the survey, students who are able to maintain their reading development over the summer have high parental involvement, and those who regress significantly over the summer lack high levels of parental support. If this continues, research suggests these students will fall victim to the consequences of repeated summer reading loss by the time they reach middle and high school (Gambrell, 2010; Kim & White, 2011; Mraz & Rasinski, 2007; White & Kim, 2008). Students may lose up to 2 years of reading development by the time they reach sixth grade. This could be detrimental to their academic and economic futures (Hernandez, 2011; Morrow, 2005).

However, for many parents, the problem is not a lack of desire to be involved in their child's reading development. The contributing factor to the problem for these parents is that they are unequipped with appropriate strategies and, more notably, the opportunity to practice and build self-efficacy with implementing the strategies (Morrow et al., 2006; Walbart et al., 2006). In the past, Title I schools in this district have

provided summer reading packets to the participating students and their parents. Many of the packets included books and activities, information about summer reading programs at the library or local bookstore, and strategies to use at home. The packets have been disseminated in numerous ways across the district, ranging from holding special events to sending them home with students at the conclusion of the school year. The packets were full of materials for parents, aiming to fill in the gaps due to economic strife. Title I programs in this district have not typically included an intense seminar for parents that provided them with adequate practice with these strategies and ongoing support throughout the summer. Research indicates that ongoing support is essential for learning and that simulations are also beneficial to adult learners (Kim & White, 2011; Morrow et al., 2006). Based on the Title I Teacher Needs Assessment survey (Appendix A), parent seminars in this district have not typically offered ongoing contact throughout the summer or strategy simulations during the training.

Audience

The results of this study will be valuable instructional data for Title I teachers, Title I administrators, and parents. Considering that Title I spending is a site-based decision, school-based administrators and Title I teachers will benefit from the results of this study to aid in determining if such a program is effective and feasible for their student population. State-level administrators will also be able to use this data to inform state-wide initiatives. At the end of the 2012-2013 school year, North Carolina's State Superintendent Dr. June Atkinson launched a summer reading campaign to target summer reading loss. Based on the research, she encouraged parents, businesses, and the community to donate five books to their local schools so that students could take home books to read during the summer. One school in this district participated in the campaign

as reported by the official campaign website. Dr. Atkinson's statewide campaign further supported research in this state and district.

This research study was designed for rising third-grade Title I students and parents. Rising third graders were chosen as the focus population because based on local and national data, ORF (accuracy and automaticity; reported as correct words per minute) was affected most significantly between second and third grades. Nationally, there is a difference of only two words lost between the spring of first grade and the fall of second grade. However, between second and third grade, the difference increases to 18 words lost. Locally, rising second graders lose two words over the summer, but the average rising third grader loses nine words after summer break. Hasbrouck (2012) noted that there is no evidence that suggests that students should be able to read at a rate above the mean. However, she reported that it is crucial for students to read at a rate at or above the 25th percentile.

These students were selected to participate in and receive Title I reading instruction to supplement their core curriculum based on multiple sets of data, including academic assessments, teacher recommendation, retention history, and Title I service history. Using a common, district criteria sheet (see Appendix B) that includes these factors, students may qualify to receive extra services through Title I. Based on the identified factors, each school determined which students will qualify for extra services because, based on their ranked score on the criteria sheet, they need extra support to be successful in the regular classroom. The participating students and parents, as well as others who were concerned with summer reading loss, will benefit from the report of these findings in order to determine if this home-based reading program is an effective way to improve summer reading loss.

Purpose of the Study

The purpose of this study was to determine the impact of parent development on rising third graders' summer reading losses. The Logic Model was used to plan and develop the parent development program as well as create integral research questions that were asked throughout implementation of the program (see Figure 1).

Based on a survey conducted as part of an annual needs assessment at one school (see Appendix A), Title I teachers wanted to equip parents with knowledge, skills, and materials that they need to target summer reading loss as measured by how accurately and automatically they read grade-level text. Although DIBELS Next does not measure prosody with a quantitative rubric, qualitative notes are taken at the end of the passages to describe the reader's phrasing and expression. Based on responses to parent surveys (see Appendix C) that were conducted in 2011 as part of the Title I program's annual needs assessment, parents at these schools were concerned about their children falling further behind because of summertime regression. They wanted to learn how to combat this academic problem.

The researcher utilized reverse mapping in order to plan and organize the parent development program. Reverse mapping builds a Logic Model (see Figure 1 and Appendix D) by beginning with the intended outcomes, then working backwards to determine the activities and inputs (Taylor-Powell, Jones, & Henert, 2002). The arrows were included in order to determine the logical connection between the program's resources, activities, participants, and outcomes. The following Logic Model flowchart was created to plan and develop the parent development program (see Figure 1 and Appendix D).

This study aimed to integrate key components of the FORI approach (Morrow et

al., 2006) and included teaching parents quick and easy ways to implement strategies through simulations and practice sessions (Padak & Rasinski, 2006). The study also included ongoing support for parents during the summer through communication with the Title I teacher (Kim & White, 2011). Teachers strived to support parents with at least bimonthly communication via telephone or face-to-face interaction during the summer. One size should not fit all with a home-based, summer reading program; therefore, parents and teachers were free to establish individualized communication protocols. These changes were implemented through mutual adaptation between the program developer and the teachers in order to preserve the integrity of the program. Changes made to the *bimonthly* plan are indicated in Chapters 3 and 4.

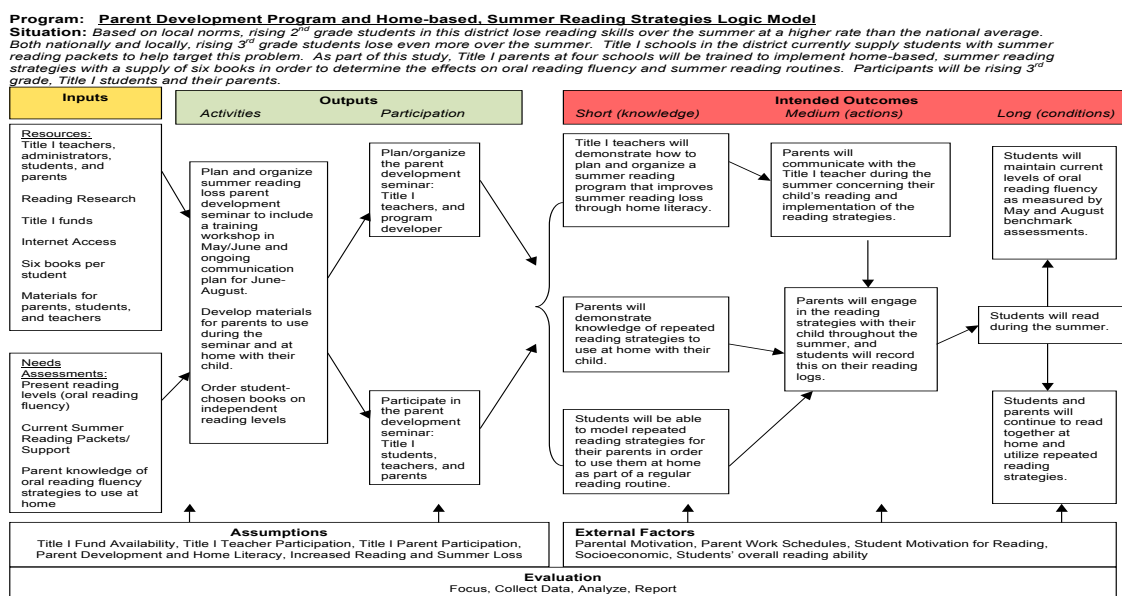


Figure 1. A Logic Model.

This research is especially important for Title I schools as they plan and disseminate their summer reading packets. By integrating key fluency strategies and important family literacy ideals such as efficiency and possible time restrictions, this

research study intended to determine the impact of such a program on summer reading loss for students in four Title I schools in a rural North Carolina district.

This study utilized mixed methods (Creswell & Clark, 2007) in order to describe the impact parent development had on summer reading loss. Quantitative data such as pretest/posttest comparisons and reading log data were collected, as well as a qualitative open-ended questionnaire and anecdotal notes from parent contact logs.

Research Questions

Considering this parent development and home-based summer reading program was new and had never been implemented, a logic model was used to develop and plan the parent development program (see Appendix D). Using this model, research questions were developed in order to conduct a mixed-methods study of the program. Throughout the program, other questions were asked in order to determine if mutual adaptation was appropriate or if fidelity of implementation should be upheld at each of the sites. A pretest/posttest quasi-experimental design was used to evaluate the impact of parent development from resources to results. Because the control group consisted of a small sample size, additional questions were added to the questionnaire to further analyze the impact of the program. The evaluation questions at each phase led to answering the following research questions and determining to accept or reject the null hypotheses.

Research Question 1. What is the impact of the parent development seminar on parents' abilities to demonstrate mastery of reading strategies?

Null Hypothesis 1. Parent development has no impact on parents' abilities to demonstrate mastery of reading strategies.

Research Question 2. What is the impact of summer reading volume (number of books initially and repeatedly read) on summer reading loss as measured by the

difference in May and August ORF scores?

Null Hypothesis 2. Summer reading volume (number of books initially and repeatedly read) has no impact on rising third graders' summer reading losses as measured by the difference in May and August ORF scores.

Research Question 3. What is the impact of reading strategies (echo, NIM, shared, or repeated readings) on summer reading loss as measured by the difference in May and August ORF scores?

Null Hypothesis 3. The use of reading strategies (echo, NIM, shared, or repeated readings) has no impact on rising third graders' summer reading losses as measured by the difference in May and August ORF scores.

Research Question 4. What is the impact of parent development and home-based summer reading on summer reading loss as measured by the difference in May and August ORF scores?

Null Hypothesis 4. Parent development and home-based, summer reading have no impact on rising third graders' summer reading losses as measured by the difference in May and August ORF scores.

Definition of Terms

Terms that were specific to this study are operationalized so the reader understands their application within this study. The following table defines a few key terms, as some have synonymous meaning yet varying titles in other research studies.

Table 3

Key Terms

Term	Operational Definition
Echo Reading	A reading strategy that entails a fluent reader reading part of a text and then the child will repeat and read the same line aloud again (University of Canberra, 2011a; Beers, 2003).
Economically Disadvantaged Community	Determined by the percentage of students receiving free and reduced lunch as reported on the school's report card
Neuroimpress Method (NIM)	A reading strategy that entails a fluent reader reading aloud with the child, at a speed slightly ahead while tracking with their finger (University of Canberra, 2011b; Walker, 2008).
Oral Reading Fluency (ORF)	The ability to read with accuracy, automaticity, and prosody (Kuhn, 2005; Rasinski, 2000).
Parent Development	A short session with parents focusing on teaching them how to utilize repeated reading strategies as part of their home reading routines
Shared Reading	A reading strategy, sometimes called paired reading, that includes a fluent reader taking turns with the child, each reading a sentence, paragraph, page, or other small amount of text (University of Canberra, 2011c; Morrow, 2005).
Summer Reading Loss	A decline in reading development as a result of an extended period of time away from formal literacy instruction, most commonly after summer vacation (Mraz & Rasinski, 2007). For this study, it will be measured by ORF.

Summer reading loss is an educational problem across the country and has been researched thoroughly over the last 4 decades (Deck, 2011; Hindin & Paratore, 2007; Kim & Guryan, 2010; LeFevre & Senechal, 2002; Allington & McGill-Franzen, 2008; Morrow et al., 2006; Neidermeyer, 1970; Rasinski & Stevenson, 2005; Triplett, 2009). It is important to determine what current research has found relating to summer reading

loss, reading development, home literacy, and parent development.

In Chapter 2, this information is compiled and analyzed in order to plan effective instruction for parents and reading practice for parents. Details gathered from the literature were used to mold this study's methodology in Chapter 3. The literature served as a basis for planning through the use of documented findings. Studies that have formed the foundation of this topic were used in order to design a home-based summer reading program, an effective parent development seminar, and a mixed-methods research design to evaluate the results through a well-rounded, well-informed lens. Chapter 4 describes quantitative and qualitative methods that were used to collect and analyze data from reading logs, questionnaires, parent contact logs, and pretest/posttest scores. Chapter 5 details a summary of the study including interpretations, limitations, and recommendations.

Chapter 2: Review of Literature

Introduction

Dating back to the 19th century, beginning during the post-Civil War period, public schools have operated on an agrarian calendar, taking long summer breaks so that children could help their families with harvesting crops (Johnson & Spradlin, 2007). In the early 21st century, approximately 150 years later, public schools continue to operate on this same schedule although less than 2% of Americans still rely on agriculture as their primary source of income. Due to this long break in formal instruction, students are losing reading development gained during the school year, especially in low-income communities. Bakle (2010) noted that this also occurs across the Atlantic in England after a 7-8 week summer vacation.

This is not a new problem. In 1894, the National Education Commission (Hopkins, 2009) complained about the loss of instructional time due to the shortened days and lengthened summer breaks. A century later, the Commission again aimed to confront the negative impact that shortened days and longer summer vacations have on student learning (National Education Commission, 1994). Just after the Commission's position statement in 1994, Cooper, Nye, Charlton, Lindsay, and Greathouse (1996) noted that historically rural schools (5- or 6-month schedules) were on a different schedule from urban schools (11- or 12-month schedules) due to agricultural needs. After the turn of the century, a more standardized calendar was implemented which included a 9-month schedule. This change concerned the National Education Commission in 1894, continued to be a concern to the Commission in 1994, and even in the 21st century the debate still continues about school calendars and the impact on student learning (Hopkins, 2009). Research indicates that year-round schooling has contradictory evidence to support its

effectiveness. Although research indicates that students do not lose as much over the shortened breaks, the overall comparison based on achievement scores at the end of the year has mixed results (Hopkins, 2009). The school calendar has largely remained the same for centuries for the majority of schools due to family traditions, summer learning opportunities, and the mixed results regarding impact on learning (Cooper et al., 1996; Education Week, 2004; Hopkins, 2009).

Research notes that summer reading loss is still a current trend and problem (Cooper, 2003; Johnson & Spradlin, 2007; Kim & White, 2011; Mraz & Rasinski, 2007; McGill-Franzen & Allington, 2001), and educators continue to search for effective strategies to combat this educational problem. Johnson and Spradlin (2007) suggested that an extended school year is most effective for students in low-income communities. Research also suggests that involving parents in literacy development strategies at home is an effective method for fostering early literacy skills (Morrow, 2005; Morrow et al., 2006; Neidermeyer, 1970; Padak & Rasinski, 2006). There are numerous suggestions for how parents can help their child at home, however, summer reading loss still exists based on national ORF norms (Hasbrouck & Tindal, 2006).

This chapter contains an overview of ORF and the importance this skill plays in reading comprehension. Instructional strategies can be utilized to improve ORF, and these strategies can be used at home or at school. This chapter describes the summer reading loss phenomenon and research that has been conducted in order to combat this educational problem. Multiple factors, including reading motivation, access to books, and a literacy-rich home environment have an impact on summer reading loss. School-based programs and increased access to books have been popular methods for decreasing the amount of regression students suffer because of the extended time away from formal

reading instruction during the summer. Research suggests that parent involvement is a highly effective method of improving literacy (Deck, 2011; Hindin & Paratore, 2007; LeFevre & Senechal, 2002; Morrow, 2005; Morrow et al., 2006; Neidermeyer, 1970; Padak & Rasinski, 2006; Rasinski & Stevenson, 2005). With increasing budget constraints and the need to educate parents about using reading strategies at home with their children, effective parent development sessions may be a feasible method to satisfy both of these. Using research-based practices to design the parent development is an imperative component of effective instruction for adult learners.

Conceptual Framework

ORF is the ability to read text with accuracy, automaticity, and with conversation-like expression and phrasing, called prosody (Faver, 2008; Morrow, 2005; Morrow et al., 2006; Rasinski, Rupley, & Nichols, 2008; Samuels, 1979). Fluency is not the ultimate goal of reading, however, it is an essential indicator of reading proficiency and a predictor of reading success (Hasbrouck & Tindal, 2006; Morrow et al., 2006). Faver (2008) noted that the goal of reading is to read at a normal speaking pace while understanding what one reads. A student reading at the 50th percentile is considered to be a proficient reader (Hasbrouck & Tindal, 2006). Reading fluency is achieved through practice, just as a sports or musical skill is improved through repeated practice (Samuels, 1979).

Hasbrouck (2012) noted that there is “no compelling evidence” that supports the need for students to read at a rate above the mean, but there is significant evidence regarding how critical it is for students to read at a rate near the mean to improve comprehension and motivation (p. 6). Hasbrouck has identified three zones based on ORF reading rates: green, yellow, and red. Based on standard deviation and the mean

ORF score for in the spring of second grade (89 correct words per minute), Hasbrouck's zones are as follows: green (85 to 99 correct words per minute), yellow (79 to 84 correct words per minute), and red (below 78 correct words per minute). The green and yellow zones fall within 10 points of the mean, which is the standard deviation based on national data.

Repeated readings are effective strategies that improve ORF (Beers, 2003; Morrow, 2005; Samuels, 1979; Walker, 2008) for students reading on a first- through third-grade independent reading level (Faver, 2008; Walker, 2008). Some repeated reading strategies include echo reading, neuroimpress method (NIM), model reading, choral reading, partner reading, and other similar methods (Beers, 2003; Faver, 2008; Morrow, 2005; Rasinski et al., 2008; Walker, 2008).

ORF is a practice skill and, like other practice skills such as sports, music, and math calculation, ORF can be affected by lack of *practice* during the summer (Samuels, 1979). Because parents play a critical role in home literacy and early reading development, it is important to encourage and include parents in the efforts to target summer reading loss (Kim & White, 2011; Morrow et al., 2006; Waldbart et al., 2006). Parents can be taught easy-to-implement fluency strategies at home as part of their reading routine.

Reading is a multi-faceted ability that entails numerous skills in order to be proficient. According to Chall (1983), readers progress through five stages of development (see Figure 2; www.scholastic.com). Stage zero of reading development is called *prereading*, in which early readers develop oral language through sound awareness, also called *phonemic awareness*. This stage includes knowledge of the relationship between the spoken word and the sounds within the words. Phonemic

awareness can be assessed using assessments that include picture sorts/matching, oral sound manipulation, and aural discrepancy development.

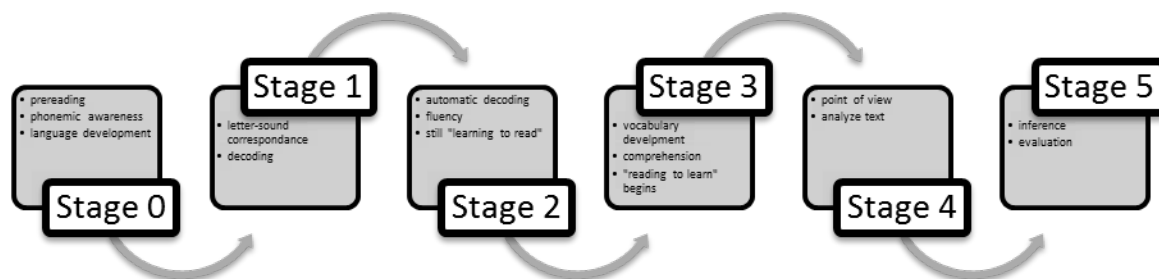


Figure 2. Chall's Stages of Reading Development.

Following their ability to hear and manipulate sounds within words, readers learn that letters represent sounds that in turn create the written word. Stage one is called *initial reading*, in which a learner is focused on letters and sounds (Chall, 1983). Determining if the reader knows the correct sounds each letter represents is one way to assess this stage. At this stage, readers have knowledge of letters and the corresponding sounds, however, they do not understand how to blend those sounds into words as they read. This is a dis-fluent, laborious stage of development for the progressing reader.

Chall's (1983) stage two of reading development is called *confirmation and fluency*. Although Chall noted that the stages are not bound by age, she suggested that this stage often occurs in second and third grades (ages 7-8.3). Readers become automatic with their decoding skills and are able to accurately and efficiently read words without relying on each letter within them. This is the stage of fluent reading. At this stage of reading development, students learn to read in meaningful phrases and with expression that also indicates their ability to gain meaning from the text through word

knowledge (vocabulary), syntax (sentence structure), and semantics (word/phrase meaning).

The ability to gain meaning from text is called *comprehension*, which is the ultimate goal of reading (Hasbrouck & Tindal, 2006; Morrow et al., 2006). There is a wide range of skills that then progress as the reader learns to comprehend the text using higher order thinking skills such as inference and evaluation.

Stages three, four, and five of Chall's (1983) stages of reading development are all levels of comprehension. In stage three, *reading for learning the new*, readers learn vocabulary, build background knowledge, and develop strategies in order to gain meaning from text. In stages four and five, *multiple viewpoints* and *construction and reconstruction*, readers progress beyond basic comprehension and are learning to analyze the text through inference and evaluation. In elementary school, students are usually progressing through stage three as they learn to read to gain new information.

ORF can be measured by determining how accurately and automatically one reads a text. Counting the number of correct words read per minute often assesses this skill. Another aspect of ORF is prosody, which is the ability to read with conversation-like phrasing and expression. This component of fluency can be assessed using a rubric (NAEP, 2005). One assessment (Dynamic Measurement Group, Inc., 2010) that is commonly used to assess ORF is Dynamic Indicators of Basic Early Literacy Skills (DIBELS). It is used to assess ORF for students in first through fifth grades. Primarily, the assessment focuses on accuracy and automaticity, although the DIBELS Next addition has included a checklist at the end of the assessment to note error patterns and prosody. Students are timed for 1 minute as they read three passages. The median score is recorded. Another common assessment that is used to assess ORF is AIMSweb, which

has been used in recent research on summer reading loss as well. Similar to DIBELS, AIMSweb assesses ORF using 1-minute probes. There are many other ORF assessments, but these are the ones that have been cited in the most recent studies of ORF.

Comprehension can be assessed in many ways. Retelling, questioning, and cloze procedures are popular reading comprehension assessments (Therrien & Kubina, 2006). These assessments can generate scores that translate into grade equivalents, Lexile scores, or other standard scores. Many studies of summer reading loss have used Lexile or scale scores from standardized reading comprehension tests to determine the impact summer vacation had on reading comprehension (Allington & McGill-Franzen, 2008; Kim & Guryan, 2010; Triplett, 2009). Research suggests that ORF is a better indicator of comprehension than retelling, questioning, or cloze procedures (Therrien & Kubina, 2006). Talada (2007) suggested that fluency and comprehension have a reciprocal relationship, each fostering the development of the other.

Synthesis of Findings

The summer reading loss phenomenon. Summer reading loss is not a new phenomenon. Heyns (1978) conducted a foundational study regarding summer learning loss in Atlanta, Georgia, using a 2,978 student sample from 42 schools in the district. The study was descriptive in nature and sought to describe the correlation between social class and race on summer reading achievement. The sample was drawn from a stratified organization of the district's schools, arranged so that the sample of sixth and seventh graders would include an equal distribution of socioeconomic and racial differences. The sample was not representative of the district economic or racial ratios, however, the sample was designed so that each subgroup could be studied accordingly. Heyns conducted the longitudinal, mixed-methods study over 2 years, using Metropolitan

Achievement Test data (only the Word Knowledge section) from fall and spring of 1970-1972 school years and parent interviews. The Word Knowledge section, one of nine sections, had the highest reliability between each grade and among racial subgroups. Based on these tests, personal interviews with parents, and parent surveys regarding summer activities and family backgrounds, Heyns found that “the role of families in the achievement process is ubiquitous” (p. 195). Heyns further noted that socioeconomic status is not the most influential variable effecting a child’s achievement but family attitudes toward education and parent-child interactions play a more important role.

Research indicates that students lose learning in math and reading during summer vacation. Cooper (2003) conducted a meta-analysis (a statistical integration) of 13 studies in order to synthesize the data concerning summer learning loss. Findings indicated that students lost an average of 1 month of learning after summer vacation and the most significant area was in math computation. These findings were based on an analysis of standardized test scores that indicated grade equivalence. Cooper suggested that this can be explained by the lack of practice over the summer. He noted that problem solving and reading comprehension suffered less of a loss due to the conceptual nature of those skills. Cooper’s findings support national and local data that indicates a significant decrease in ORF, a practice skill, in comparison to reading comprehension. The meta-analysis also noted that there was more significant loss in math than reading, which is largely correlated with socioeconomic status. Bakle (2010) quoted Cooper, stating,

For schools with limited programming options or limited resources that intended to address the needs of the general student population, summer schools would best serve those students by focusing on math instruction. If instead, “programs have the explicit purpose of mitigating inequities across income groups, then a

focus on summer reading instruction for lower-income students would seem to be the most beneficial.” (p. 38)

Based on Cooper’s meta-analysis, summer reading instruction would be beneficial for low-income students. In North Carolina, *economically disadvantaged* status is determined in part based on the percentage of students who receive free or reduced lunch (North Carolina Department of Public Instruction, 2012). Individual student economic status is confidential information. However, school-wide economically disadvantaged data are reported on each school’s report card which is accessible through the North Carolina Department of Public Instruction website.

Summer reading loss and access to books. Research has been conducted in order to determine effective strategies to decrease summer reading loss. Studies indicated that students from low-income families do not have access to enough books and that students in general do not read much outside of school (Allington & McGill-Franzen, 2008; Kim & White, 2011; Mraz & Rasinski, 2007). Faucet theory (Entwisle, Alexander, & Olson, 1997; Pechous, 2012) explains how instruction and resources are *turned off* during the summer like a faucet for students of poverty. Therefore, these students often regress in their reading skills due to the lack of formal instruction and access to materials. Additionally, students spend about 10 minutes per day reading outside of school and for some students that would be a generous estimate (Mraz & Rasinski, 2007).

Allington and McGill-Franzen (2008) conducted a longitudinal study from 2001-2004 in which they gave 12 books to over 1,300 low-income students each spring for 3 consecutive years. The study indicated that there was a significant difference in the loss of their reading development at the end of the 3 years. The participants’ reading achievements were measured by analyzing their performances on the Florida

Comprehensive Achievement Test (FCAT) that measures reading comprehension.

McGill-Franzen and Allington (2001) listed multiple suggestions for getting books into students' hands during the summertime. A few suggestions include opening the library during the summer, using school funds to provide books, allowing long-term summer checkout, and providing an honor library. Putting more books in students' hands is a start, half the battle, considering that many wealthier communities have three times as many businesses that sell children's books over lower-income communities (Mraz & Rasinski, 2007).

However, in a more recent study by Kim and Guryan (2010), access to books did not have a significant impact on summer reading loss as measured by comprehension or vocabulary tests for 370 Latino students from low-income, non-native English speaking families. All families were English speakers, although English was not their first language. The researchers utilized a pretest/posttest design using the Gates-MacGinitie Reading Test (GMRT) to assess comprehension and vocabulary. In this study, the fourth graders were randomly assigned to one of three groups: control group (received 10 books after posttest), treatment group (received 10 books by mail throughout the summer), and family literacy group (received 10 books throughout the summer and parents were invited to attend three 2-hour literacy events). A chi-square analysis was used to determine that there was no significant difference between the control and treatment groups.

This study was an attempt to replicate a previous study in order to determine if the same effects would occur with a different population (White & Kim, 2008). The researchers attributed this to the language differences between the two participant groups. Students in this study scored in the 24th percentile in reading, whereas the students in the previous study (White & Kim, 2008) were in the 50th percentile in reading. Kim and

Guryan (2010) noted that students in the 2010 study may have had other reading or language difficulties that affected their comprehension and vocabulary scores.

Triplett (2009) conducted a study in western North Carolina to determine the impact of summer reading on second through fifth graders' reading achievements as measured by Lexile levels using the Scholastic Reading Inventory. "A Lexile measure is the most widely adopted reading metric, measuring both reader ability and text difficulty on the same scale" (MetaMetrics, 2012, www.lexile.com). This school is one of 13 elementary schools in the district and at the time of the study was the only one that had a school-wide summer reading program in place for all students.

At the end of the 2007-2008 school year, kindergarten through second-grade students received two short books and third through fifth graders received two longer books, one of which was a comic and the other was a short novel. Students' interests and reading levels were high priorities for book selection. Each student also received activities and a project to complete using the books. The projects were to be completed and turned in during the first week of school. Teachers were to plan instruction at the beginning of the year based on the quality of the projects. In addition to determining the impact of the summer reading packets (books plus activities/project), the researcher sought to determine the role of parent involvement on students' reading scores.

Triplett (2009) utilized a nonequivalent control group methodology and a pretest/posttest design to analyze data. In Triplett's study, students were also assessed again in January to determine any long-term impact on student reading achievement. Quantitative and qualitative data were collected using the Scholastic Reading Inventory test scores, reading logs, parent surveys, and student surveys. Elementary Reading Attitudes Surveys (ERAS) were given in May and September and then analyzed to

describe students' attitudes toward reading using a pretest/posttest design. Reading logs were used to determine treatment and control groups based on voluntary participation. A t test was applied in order to determine significant difference in mean Lexile scores from May to September for all grade levels. Overall the findings indicate that there was no significant difference in mean Lexile levels in September or in January (long-term impact). Fourth-grade data indicated a significant difference in parent involvement as it relates to Lexile levels but no other grade indicated this difference between the treatment and control groups. Some students maintained Lexile levels but this could not be generalized. These findings further validate Cooper's (2003) meta-analysis that noted that reading comprehension, which is measured by Lexile scores, is not significantly impacted by the long summer vacation.

Parent involvement and fluency development. Research indicates that parents need to be supported and instructed on how to read with their child in addition to being given materials (Kim & White, 2011; Morrow et al., 2006; Mraz & Rasinski, 2007; Rasinski & Stevenson, 2005). Rasinski and Stevenson (2005) conducted a study during the school year with 30 first graders that aimed to determine the impact of Fast Start, a fluency-based home reading program.

The researchers utilized a pretest/posttest experimental design with a control group. A t test was administered in order to determine the difference in the students' pretest scores for letter/word recognition and ORF (based on the median score of three curriculum-based measures). In Rasinski and Stevenson's (2005) study, the experimental and control groups were deemed to have no significant differences in pretest scores. The study took place over an 11-week period. Teachers taught parents to use the Fast Start program, which includes repeated readings of poetry and other activities. They also

remained in contact with the parents via telephone on a weekly basis (most conversations lasted approximately five minutes). The program was implemented at home consistently throughout the study. Applying analysis of covariance (ANCOVA) to determine the intervention's impact, the results of the study indicated that there was no significant difference in posttest scores for higher ability students. However, a significant difference in mean scores was found in the lower ability students' posttest scores. The significance of these findings regarding higher ability students is important to note for future research.

Repeated readings are an effective strategy for improving students' ORF (Rasinski, 2000; Therrien & Kubina, 2006). Hindin and Paratore (2007) conducted a study that aimed to determine if home repeated readings of a basal text improved students reading fluency, reading accuracy, and independent reading skills. The study also sought to describe parental intervention (either *high help* or *low help*) strategies and the influence the level of parental *help* had on subsequent word errors. Participants were second graders at a high poverty school (71% of students eligible for free or reduced-price lunch). The school population included 60% African-American students, 23% White, 10% Hispanic, 7% Asian, and fewer than 1% Native-American. Two teachers identified the low performers in their classrooms and invited them to participate in the study. Seven students from each class were invited to participate and four from each class consented.

In addition to the home repeated reading intervention, a new literacy block was also being implemented at the school. It included a 135-minute literacy block that had not previously been implemented. This is a limitation of the Hindin and Paratore's (2007) study because the repeated readings at home were not the only instructional change that occurred. Students in the study repeatedly read their basal story at home with

a parent four times a week and recorded it on audiotapes. Hindin and Paratore utilized a single-subject multiple baseline methodology in order to establish a stable baseline for each student, which also served as the control group comparison data. Pretest/posttest scores were determined using the Qualitative Reading Inventory (QRI), which assesses word recognition, error rate, ORF, and reading comprehension. Based on this data, error rates decreased from pretest to posttest, as well as from first reading to fourth reading, and ORF rates increased. Hindin and Paratore also found that students who received high help from parents decreased their repeated errors in subsequent readings (mean of 14.2% repeated errors) in comparison to their low help counterparts (mean of 43.5% repeated errors).

In addition to Fast Start and repeated reading strategies, other similar home-based literacy programs have been researched in order to determine the effectiveness of such strategies. Morrow et al. (2006) suggested that parents use Fluency Oriented Reading Instruction at home, an instructional model often used in classrooms. This method combines multiple fluency strategies such as choral reading (similar to NIM reading in this study), echo reading, paired reading (called shared reading in this study), and model reading in a systematic manner. Morrow et al. suggested that parents are often untapped resources for literacy instruction. Because parents often have limited time to devote to this at home (Padak & Rasinski, 2006), it is important that the fluency strategies are simple and time efficient. It is also important for parents and students to have a way to record their efforts in order to encourage accountability and as a motivational tool (Padak & Rasinski, 2006).

Effective parent development. Research suggests that the success of a child's early literacy development is dependent upon parent involvement and is most effective

when parents learn to use strategies from school at home with their child (Morrow et al., 2006; Neidermeyer, 1970; Waldbart et al., 2006). Research also notes that the strategies should be easy to implement, both in procedure and time elements. One of the best ways to do this is to provide them with the materials they need to implement the strategies (Neidermeyer, 1970; Padak & Rasinski, 2006) and to choose effective strategies that only take 10-15 minutes to implement a few times a week (Padak & Rasinski, 2006).

In *Designing Effective Instruction* (Morrison, Ross, Kalman, & Kemp, 2007), the authors detail four components of an effective instructional design: learners, objectives, methods, and evaluation (see Figure 3). Research indicates that adult learners are more engaged if they feel as though the content is relevant to their lives and essential to their ultimate goals for learning. There are three different types of learning goals: affective, psychomotor, and cognitive. Adult learners as well young and adolescent learners need to know the learning goals so they will know the purpose of learning.

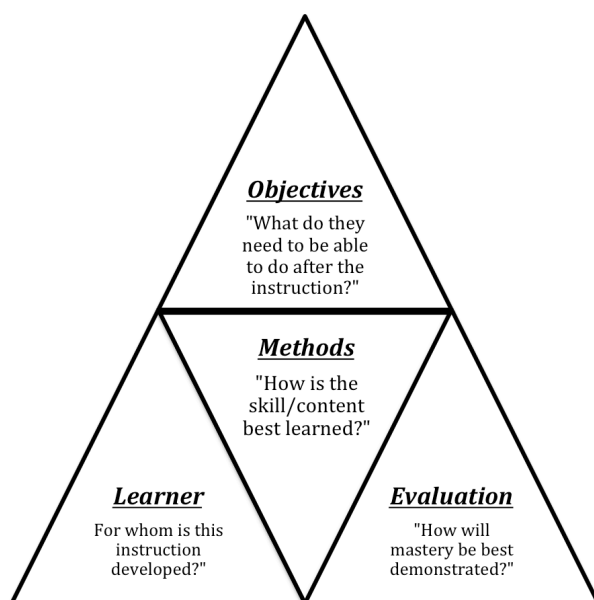


Figure 3. Instructional Design Model.

In Neidermeyer's (1970) seminal study on parent development and literacy instruction, he found that parent involvement is critical to literacy development. He conducted a study at two schools and utilized three classrooms at each school. One classroom at each school served as the treatment group, while the other two classrooms served as comparison groups. Neidermeyer used a pretest/posttest design to analyze the effectiveness of parent training and involvement on kindergarten early literacy skills (sight vocabulary, letter sound recognition, and decoding skills). ANCOVA was used since random sampling was not possible due to the nature of the study. The Parent-Assisted Learning Program was designed to teach parents how to give their child classroom-like practice at home. Training included a 90-minute session with 91 participating parents (83% of class) at the beginning of the 12-week study in 1968. Parents were trained to use programmed materials each week with their child in order to work on four goals: automatic recognition of 91 syllable words, 11 beginning consonant sounds, 12 vowel-consonant endings (word families), and to blend these onsets and rimes to make words. There were 48 activities and parents reported (by survey) that they completed 44 of the 48 activities (on average). Based on Neidermeyer's findings, parent development seminars should be concise and objective driven.

Neidermeyer's (1970) study found that 66% of the treatment group scored at or above benchmark on the posttest (80% correct) while the other two comparison groups had 15% and 19% at or above 80% accuracy. Neidermeyer concluded that carefully developed school-related home instruction can have a positive impact on student learning and parent participation. He noted that success can be attributed to "instruction based on objectives, programmed materials, short but specific parent training, procedures for rewarding and motivation children, and a classroom program that generated positive

parent attitudes” (Niedermeyer, p. 444).

Further research also indicates that parent involvement positively impacts reading development in young children. Crimm (1992) conducted a meta-analysis of 57 quantitative studies regarding parent involvement interventions including parent training, communication, and home-tutoring. Based on the meta-analysis methodology, reading was found to benefit the most from parent involvement. Crimm analyzed 29 additional studies regarding parent involvement that did not contain data that was conducive to meta-analysis. Seventeen of the 29 studies also indicated that parent involvement positively impacted students in reading, especially for younger students in third through fifth grades.

Considering that parent involvement is crucial, the schools must understand that this behavior is affective in nature. Waldbart et al. (2006) suggested that for parents to become involved with academic efforts at home, they must feel genuinely invited to attend events at school, feel a responsibility about their child’s academic learning, and have a need for self-efficacy in their ability to help their child with school. By offering a workshop at varying times of day and days of the week, educating parents about the impact they have on their child’s academic development, and by supporting parents in their efforts, schools can implement these suggestions in order to encourage parental involvement.

Research has supported the notion that simply giving children books may not be enough to combat the loss of reading development over the summer (Kim & White, 2011; Mraz & Rasinski, 2007). Although giving them books helps to alleviate the economic reasons for reading loss, the amount of reading and the type of reading experiences students have over the summer affect their reading development as well.

Research recommends that teachers offer instruction to parents about reading strategies to use at home before summer vacation begins. Research also recommends that teachers supply students with a number of books that were on their interest and reading levels to take home.

Because students are not formally in school during the summer, summer reading is voluntary in nature. Considerable motivation is necessary in order for students to spend time reading during summer vacation. White and Kim (2008) conducted a study in 2006 to determine the impact of voluntary summer reading on 486 fourth graders' summer reading losses in 34 teachers' classrooms. The suburban school district is located in the mid-Atlantic region of the United States. To increase motivation, the students received eight matched books according to Lexile levels and student interest.

In White and Kim's (2008) study, students were randomly assigned to the treatment and control groups, but both groups received classroom instruction at the end of the year. Students in the treatment group received eight books and participated in comprehension and fluency lessons during the last 2 weeks of school. Parents were also encouraged to listen to their child read aloud during the summer and provide feedback regarding the degree to which their child read with fluency (smoothness and expression). Students were asked to read aloud a 100-word passage from their book to their parents twice, receiving feedback regarding the difference in the two readings (smoothness and expression). Students in White and Kim's control group participated in classroom comprehension and fluency instruction but received their books after the posttest.

The pretest/posttest to measure comprehension was the Iowa Tests of Basic Skills (ITBS), and DIBELS was used to measure ORF. Each test was given in June and then again in September. The ITBS was not the same test in the fall, but the DIBELS fluency

assessments were the same stories used in June. Adjusted mean scores from an ANCOVA were used to analyze the ITBS scores from pretest to posttest. Surveys were also administered in order to determine student interests and summer reading routines. These data indicated that voluntary summer reading with parent support and end-of-year classroom instruction had a positive effect on students' summer reading loss as measured by ITBS comprehension scores. There was no overall difference in students' ORF, which the researchers attributed to lack of sufficient repeated practice with limited text volume (100-word passages). However, the researchers indicated that by repeatedly reading, students' comprehension skills might have been impacted.

White and Kim (2008) replicated their study in order to determine if there would be similar outcomes with a sample from different schools, different grade levels, without parent support/scaffolding, or without comprehension instruction at the end of the year (only fluency instruction). In this second experiment, White and Kim randomly assigned 400 students in third through fifth grades (24 teachers) to one of four groups. There were three treatment groups. In one group, students only received matched books. In the second treatment group, students received matched books and ORF instruction. In the third treatment group, students received matched books, ORF instruction, and comprehension instruction. In the control group, students received books in the fall after the posttest and no teacher or parent scaffolding at the end of the year or during the summer.

As in the 2006 experiment, student ITBS and DIBELS scores were analyzed in June and September to determine impact on comprehension and ORF, respectively. Adjusted mean scores from an ANCOVA were also used again to compare the ITBS pretest and posttest scores. Results indicated that students in the books only treatment

group performed similarly to students in the control group. The treatment group that received books and ORF instruction performed better than the control group, but data did not indicate a significant difference. The treatment group that received books, ORF instruction, and comprehension instruction showed significant difference over the control group (2½ months difference). The DIBELS data indicated no significant difference in ORF for two of the treatment groups over the control group. Again, the authors suggested that this could be due to lack of enough repeated practice during the summer as in the 2006 study.

Based on White and Kim's (2008) and Kim and White's (2011) studies, repeated practice during the summer is an important factor for preventing summer reading loss. In order to ensure that students engage in repeated practices, parent involvement is imperative. Parents need opportunities to learn about home literacy practices, how to implement strategies at home in order to provide a literacy-rich environment for their child.

As with all adult learners (Morrison et al., 2007), parents need to feel as if they are being taught relevant information that will be beneficial to them or their children. It is important that parents feel as though the seminar had a positive impact. Deck (2011) conducted a case study that involved three families in a Christian school. This study sought to determine the impact of parent development on parent perceptions of how the workshop affected their summer reading routines, and the impact on parents' understanding of reading strategies used to impact ORF and summer reading loss. The participants attended one workshop before summer break to learn about summer reading loss and to learn how to implement reading strategies at home. The results of this study indicated that parents' knowledge of reading strategies increased and that their reading

routines increased over the summer as a result of the parent development. This case study did not indicate ongoing communication during the summer. It also indicated impact with a small sample size.

Reading motivation. If parents are motivated to learn reading strategies to try at home and to take an active role in their child's literacy development, it is logical to also consider another important factor that impacts summer reading loss: the child's motivation to read. Morgan et al. (2008) described the *reading poor* as often developing negative attitudes toward reading that in turn affect their reading abilities. Reading motivation is imperative because, based on the Matthew Effect phenomenon, low reading volume is a considerable factor in their reading poor status (Morgan et al., 2008; Stanovich, 1986). Gambrell (1996) conducted multiple studies as part of the University of Maryland's Literacy Motivation Project. The studies focused on first-, third-, and fifth-grade students in an effort to determine the role of motivation on literacy development. The first grade study used a classroom-based program entitled The Running Start (RS) that aimed to increase reading motivation by increasing access to books. Participants in this study included 7,000 students, 4,000 parents, and 320 teachers from a total of nine states in rural, urban, and suburban districts. Each classroom was infused with 50-60 new books to add to their classroom library, all of which were chosen by the teachers in order to match reader interest to text. Key components of the program included increasing access to books, providing students autonomy in book selection, increasing home reading behaviors, and reading-related incentives.

During the 10-week program, students were encouraged to read 21 books in accordance with the program theme, "Creating Readers for the Twenty-First Century." Students were also encouraged to read to people at home, listen to someone read aloud to

them, read with someone, and talk about their books with others. Gambrell (1996) utilized a pretest/posttest survey to determine the program's effects. The results of this study indicate that there was a statistically significant difference in reading motivation and home literacy behaviors for students who participated in the RS motivational program, which included giving students a choice about the books they read.

“Students should have an opportunity to read books that tap into their personal interests because this enhances their motivation to read independently” (Kim & White, 2011, p. 117). In 2011, Gambrell, in her article “Seven Rules of Engagement: What’s Most Important to Know About Motivation to Read,” noted that there are seven factors that positively impact student reading motivation. Students are more likely to read if the following *rules of engagement* are considered (Gambrell, 2011). Rule number one is that students feel that the reading tasks are relevant to their lives. Rule number two is that students have access to a wide range of reading material. Rule number three is that students have ample opportunities to engage in sustained reading. Rule number four is that students have a choice about what and how they read. Rule number five is that students are allowed to interact socially with others regarding the book. Rule number six is that students experience success while reading, and rule number seven is that incentives reflect the value of reading.

McGaha and Igo (2012) found in their study of a high school summer reading program that the same practices used during the regular school year are also effective strategies for improving motivation for reading during the summer. This is especially true regarding Gambrell’s (2011) fourth rule of engagement regarding book choice. In 2007, McGaha and Igo conducted a study with high school students in order to assess student reading motivation in a voluntary summer reading program. In this study,

students were engaged in book clubs with faculty members during the summer. Students were given a choice as to which book club they participated in, and were given a free book as well. Students were also asked to complete a project based on the book, which would in turn provide the student with up to four extra credit points to use the next school year. These points could be added to the student's final class average in one class. The participating book club teachers graded the projects.

Because motivation is such a critical component of reading, especially during the summer months, it is important to ensure that students in this study are motivated to read. McGaha and Igo (2012) gathered data from a survey to determine which aspects of the voluntary summer reading program were most motivational. During the second year of this 3-year study, they surveyed over 1,100 students in tenth through twelfth grades, and 953 were included in the analysis after invalid surveys were taken out (i.e., less than 10 questions answered, same answer on all prompts, students did not read the book). They conducted 11 one-tailed t tests in order to determine which components of the program most significantly impacted student motivation to read. Based on the survey results, students were motivated to read mostly because they could choose the book they wanted to read and because they could read at their own pace. The study was repeated for 3 years, refining the program each year in response to parent, teacher, and student suggestions. At the end of the third year, they surveyed 656 students with similar results regarding book choice and self-pacing. McGaha and Igo were especially surprised at how strongly the students felt about being allowed to choose their books and read at their own pace. On a scale of one to six on the survey (one representing a negative response and six representing a positive response), the two highest ranked items at the end of the second year were "Being able to choose my own book made me more likely to read it"

(mean score 4.59) and “I liked that I could read my book at my own pace” (mean score 5.01). In addition, “Having a choice of book was important to me” (mean score 4.9) and “I liked that I could read my book at my own pace” (mean score 5.16) were the two highest ranked responses during the third year of the study. These findings are in accordance with Worthy and McKool’s (Gambrell & Marinak, 2009) findings that indicate that choice has a positive impact on reading engagement.

Deficiencies in the Evidence

Summer reading loss has been heavily cited in research (Allington & McGill-Franzen, 2003; Cooper, 2003; Gambrell, 2010; Heyns, 1978; Kim & White, 2011; McGill-Franzen & Allington, 2001; Mraz & Rasinski, 2007). Research suggests practical strategies for teachers and schools to use in order to combat the loss of reading development over the summer. Many of these studies determined the impact of increasing access to materials (Allington & McGill-Franzen, 2003; Gambrell, 2010; Mraz & Rasinski, 2007) or implementing a structured, home-based summer reading program (Hindin & Paratore, 2007; Morrow et al., 2006; Rasinski & Stevenson, 2005). These studies have indicated positive impacts on reading development over the summer.

One common thread within these studies is to advocate for parents playing an integral role in early literacy development to defend against summer reading loss. Considering that home literacy is vital to reading development (Morrow et al., 2006; Kim & White, 2011; Waldbart et al., 2006), and budgeting concerns of the current economy may restrict funding for school-based summer reading programs (Eidahl, 2011), it is important to determine the impact of parent development and home-based reading strategies on summer reading loss. Research indicates that parents need to be taught quick and easy to implement strategies to use at home (Padak & Rasinski, 2006).

Research also recommends that parents need to feel empowered and have a need for self-efficacy about helping their child at home with reading (Waldbart et al., 2006).

Although there is plenty of separate evidence in the research about the topics of summer reading loss, parent development, and fluency, there is little research that details the effects of parent development on summer reading loss as measured by ORF. The Fluency Oriented Reading Instruction (FORI) model was supported in research as a family fluency program (Morrow et al., 2006). This is a strategy often used in reading instruction that includes model, shared, choral, and echo reading with specific, guided procedures.

Padak and Rasinski (2006) outlined key components of a family literacy program that need to consider parental time restraints, necessary materials, incorporate simple and effective strategies, and offer ongoing training and communication between home and school. Kim and White (2011) also described using ongoing communication and teaching parents reading strategies to use at home as an effective piece of a home-based, reading program.

Need for Further Research

After reviewing the research about parent development, summer reading loss, and ORF, it is evident that there is need for further research on the impact of parent development on summer reading loss as measured by ORF. Considering that reading comprehension is a conceptual skill, and based on Cooper's (2003) meta-analysis is not lost over the summer, this study aimed to investigate the impact of home-based summer reading strategies to address this question in regards to fluency. Fluency is a practice strategy (Samuels, 1979) and, based on Cooper's meta-analysis findings, these types of skills are more likely to be lost over the summer than conceptual skills such as

comprehension and problem solving.

Many studies indicated positive effects of parent involvement, access to books, and repeated readings, however, few studies were conducted to learn the impact of these constructs during the summer. Most of the studies that focused on parent development took place during the school year (Deck, 2011; Hindin & Paratore, 2007; LeFevre & Senechal, 2002; Morrow et al., 2006; Neidermeyer, 1970; Rasinski & Stevenson, 2005). Other studies offered school-based summer reading programs (Bakle, 2010; Eidahl, 2011; Pechous, 2012) with mixed results. There are also mixed results regarding access to books as the sole strategies for targeting summer reading loss (Kim & Guryan, 2010; Allington & McGill-Franzen, 2008; Triplett, 2009).

For adult learners, like younger learners, principles of solid instructional strategies must be employed in order for the training to be effective and the objectives to be accomplished (Morrison et al., 2007). By incorporating instructional strategies such as simulations, small group discussions, feedback (Morrison et al., 2007), and by teaching parents about the problem surrounding summer reading loss (Kim & White, 2011; Mraz & Rasinski, 2007), this researcher aimed to gather data to add to this body of knowledge.

The literature is rich with evidence regarding parent development, summer reading loss, and reading development. Based on the findings within this chapter, this researcher was able to design this study's research methodology in accordance with those conclusions. Using a mixed-methods approach, Chapter 3 offers details regarding the parent development seminar, clarifying how the research has been utilized in the development of each instructional component. In addition to instructional design, Chapter 3 includes explanations regarding data collection and analysis as based on the literature specified this chapter.

Chapter 3: Methodology

Introduction

Based on the research, parent involvement, home-based instruction, and access to books have been used to target summer reading loss for students of all ages (Deck, 2011; Hindin & Paratore, 2007; Kim & Guryan, 2010; LeFevre & Senechal, 2002; McGill-Franzen & Allington, 2008; Morrow et al., 2006; Neidermeyer, 1970; Rasinski & Stevenson, 2005; Triplett, 2009). Due to lack of formal instruction, students may lose up to 2 years of reading development by the time they reach sixth grade (McGill-Franzen & Allington, 2001), which is in addition to any other reading deficits the students exhibit. Based on evidence from Cooper's (2003) meta-analysis, this study sought to determine the impact of continued *practice* during the summer on students' ORF, which like math computation, is a practice skill. Parent development and ongoing support was provided in order to determine the impact of parent development on summer reading loss.

The literature suggests ways in which parents can help their child at home; however, summer reading loss still exists based on national ORF norms (Hasbrouck & Tindal, 2006). As a means for extending the school year for struggling students (Johnson & Spradlin, 2007), as well as empowering their parents with literacy development strategies (Morrow, 2005; Morrow et al., 2006; Neidermeyer, 1970; Padak & Rasinski, 2006), this study aimed to combine these two ideas in order to determine the impact on student learning. By equipping parents and students with literacy strategies and increasing student access to books, this study was designed to *extend the school year* by meshing school literacy routines into home literacy routines.

This chapter details this study's instructional design, research methods, and data analysis. A pretest/posttest quasi-experimental, mixed-methods design (Creswell, 2008;

Gall, Gall, & Borg, 2006; Trochim, 2006) was used to evaluate the impact of parent development on rising third graders' summer reading losses as measured by the difference in ORF between May and August. All rising third-grade Title I parents and students were invited to participate in a parent development seminar at four schools in a school district in western North Carolina. Title I students were identified based on weighted criteria points (see Appendix B) which were based on academic performance, teacher recommendation, retention history, and past Title I identification.

Within this study, multiple variables were analyzed to determine which has the greatest impact (if any) on students' ORF. For the purpose of this study, ORF was defined as a student's reading rate and accuracy as measured by their median score on the second-grade end-of-year DIBELS Next assessment passages (Good & Kaminski, 2010). The dependent variable in this study was the difference in students' ORF scores from May until August as measured by a pretest/posttest. The independent variables were parent development training attendance, parent perceptions of strategy mastery, summer reading volume, and use of repeated reading strategies at home. These variables were analyzed to determine impact on students' summer reading losses.

Participants

Based on Chall's (1983) stages of reading development, the relationship between fluency and comprehension, and Cooper's meta-analysis of summer reading loss, this study measured summer reading loss by assessing ORF. The student participants were rising third graders, all of whom were identified for the Title I reading program. This home-based reading program targeted struggling readers. Considering their ages, participation in the Title I program, Chall's stages of reading development, and Cooper's (2003) meta-analysis regarding practice skills and summer regression, this study focused

on teaching parents how to use strategies that affect ORF with their child at home.

Participant selection was one of the components of this study that defined it as quasi-experimental. Participants in this study consisted of two groups: rising third-grade Title I students and their parents at four different schools in western North Carolina. An elementary school from each zone within the district was represented in the study. The participating schools were chosen by convenience based on their location within the district, their willingness to participate in the study, and recommendations from the district Title I and Parent Center directors. The directors suggested that the participating schools should be comprised of veteran Title I teachers (excluding first-year Title I teachers) at schools with veteran principals (excluding first-year principals). Once a school agreed to participate, no other schools from that zone were asked to participate in the study. Each school's Title I teacher was asked to be the zone's representative. Students were selected to participate in and receive Title I reading instruction to supplement their core curriculum based on multiple sets of data, including academic assessments, teacher recommendation, retention history, and Title I service history. Each school determined a cut-off score for Title I participants based on the programs offered, available staff, and the needs of the school. This number varied at each school based on these factors. Based on the criteria rubrics used to rank order students in each grade level, identified Title I students need extra support to be successful in the classroom.

Many students from economically disadvantaged homes are not proficient in reading and math as measured by state standardized tests. Based on Cooper's (2003) meta-analysis, summer reading instruction would be beneficial for low-income students. It was not feasible for this researcher to distinguish between economically disadvantaged students and noneconomically disadvantaged students in this study due to the confidential

nature of that information. The participants all attended schools that received federal funding due to a high percentage of families that qualify for free or reduced lunch based on their income. In North Carolina, school-wide Title I schools must have at least 40% of students who qualify for free or reduced lunch in order to receive the federal Title I funding. These schools have percentages higher than 40% (see Table 4) and are school-wide Title I programs. Therefore, this study aimed to focus on students living in a community in which a large number of its members would be considered *economically disadvantaged*. The focus of this study was to educate parents regarding literacy strategies to use at home in an effort to infuse instruction into the home environment and to continue reading *practice* during the summer.

The local school district published each school's report card and community profile on its website as public record in addition to the state's public website. Based on this data, Table 4 indicates the degree to which each of the schools were considered economically disadvantaged based on the percentage of families qualifying for free or reduced lunch. Table 5 describes the students' performances on state standardized tests in reading and math. All of this information is public record and can be found on the school district's website. The schools in this study have been assigned pseudonyms for confidentiality purposes.

Table 4

Economically Disadvantaged Students at Participating Schools

Participating School	Economically Disadvantaged (ED)
Compassion Elementary	96.3%
Whispering Brook Elementary	51.0%
Julius Elementary	58.3%
Compass Rose Elementary	51.0%

Note. These percentages are based on community profiles published as public record by the school district.

Table 5

Percent Proficient in Math and Reading

Participating School	ED	Not ED
Compassion Elementary	65.5%	>95%
Whispering Brook Elementary	69.3%	90.2%
Julius Elementary	60.0%	76.7%
Compass Rose Elementary	63.5%	88.9%

Note. This information is published on the school report cards.

Title I students in a school-wide program are not necessarily from low-income families, although the school qualified for Title I funds based on the percentage of students eligible for free and reduced lunch. This percentage is public record and can be found on each school's report card published by the state's Department of Public Instruction (DPI). Rosters that include students receiving free or reduced lunch are confidential; therefore, the researcher could not identify students from low-income families in order to account for socioeconomic status as a contributing factor for each child.

Parents were initially selected to participate in the study by their child's placement in the Title I program. Secondly, they were selected by their willingness to

participate in a parent seminar and their commitment to implement the strategies they learned at the seminar at home with their child during the summer. All participating parents were asked to sign an informed consent document. Students were asked to sign assent forms to participate in the study as well. Parents were given the option to participate or not, either as part of the treatment group or as part of the control group. If parents declined participation, either as part of the treatment or control group, they were still invited to attend the workshops and their child was given the same materials that participating children received. The seminar was offered at multiple times of day and on varying days of the week to accommodate parents' schedules in compliance with Title I regulations. According to the No Child Left Behind Act 2001 Public Law 107-110, Section 1118 (NCLB) as well as the American Recovery and Reinvestment Act of 2009 Public Law 111-5 (ARRA), Title I schools must offer parent involvement events at varying times and days in order to stay in compliance with federal guidelines regarding Title I funds.

Students not allowed to participate were still taught the strategies at school and were given materials to take home to their parents. These parents received the handouts from the session and were invited to contact the Title I teacher with any questions or to request a follow-up conference. Students whose parents did not participate in the parent seminar could have chosen to serve as the control group, upon consent. Title I teachers kept anecdotal records regarding any parent contact during the summer or following the parent development seminar. If a parent who did not attend the seminar asked for information regarding the strategies or materials, the Title I teacher was instructed to make a note regarding the extent to which the parent was trained to use the strategies and encouraged to actively participate in the student's reading routine this summer. This

information was important for the researcher to be able to determine the impact of the strategies and/or parent communication with the Title I teacher.

The participants were based on the Title I enrollment for the spring semester of 2013 at all four schools. Demographic information provided in the description of the schools included the percentage of students who receive free and reduced lunch for each school, as well as the percent proficient in both reading and math. This information was included in order for the reader to gain a clearer picture of the student population at each school. Based on data from each school (Tables 4 and 5), it is evident that students from economically disadvantaged homes were not performing as highly as their wealthier classmates. However, it is important to note that each school's population of economically disadvantaged students was performing similarly on the end-of-grade tests in reading and math (see Table 5).

Instruments

The researcher used several data collection instruments in this mixed-methods study. Quantitative data were collected using pretest/posttest assessments, self-assessment rating scales, and reading logs. Qualitative data were collected using a questionnaire and a parent contact log.

This study focused on the practice skill of ORF. ORF can be measured by determining how accurately and automatically one reads a text. The schools in this study used DIBELS Next to assess ORF for students in first through fifth grades. Counting the number of correct words read per minute is often used to assess this skill. Another aspect of ORF is prosody, which is the ability to read with conversation-like phrasing and expression. For this study, automaticity and accuracy was used to determine oral reading rate, as recorded by correct words read per minute. In accordance with previous fluency

studies (Rasinski & Stevenson, 2005), ORF assessment scores in this study were based on the median score of three curriculum-based measures. Primarily, the DIBELS Next assessment focuses on accuracy and automaticity, although a checklist is also used at the end of the assessment to note error patterns and prosody.

The schools used a team of trained teachers to universally screen all of their students three times per year: beginning (September), middle (January), and end (May). The researcher used universal screening data collected in May and posttest data collected in August 2013 from each of the schools to determine the students' ORF loss, gains, or maintenance after summer vacation. The researcher utilized each school's universal screening teams already in place to collect May data using DIBELS Next edition (Good & Kaminski, 2010). Title I teachers collected the posttest data in August during the first week of school. The posttest consisted of the same three stories that were used in the pretest in May.

Based on Spearman-Brown Prophecy Formula (Dynamic Measurement Group, 2010), the ORF assessment has an inter-rater reliability rating of 0.99 in both accuracy and correct words per minute (CWPM) for second-grade probes. These correlations are significant at $p < 0.001$. This assessment also has test-retest reliability (Dynamic Measurement Group, 2010) whereas the same results were found when second graders were tested and then retested 2 weeks later. Reliability was 0.91 ($p < 0.001$) for CWPM and 0.57 ($p < 0.01$) for accuracy. Therefore, since the same test was administered as the pretest and posttest, any differences in CWPM or accuracy may be attributed to the parent development session, reading volume, reading frequency, or a combination of these variables.

The researcher used a 5-level, Likert scale self-assessment (see Appendix E) to

collect data from the parent development session. These quantitative data were used to determine the impact of the parent development session on parents' perceived mastery of the repeated reading strategies. The mean was calculated and used to determine an overall positive, neutral, or negative evaluation. A mean less than three was considered an overall negative evaluation. A mean equal to three was considered a neutral evaluation, and a mean above three was considered an overall positive evaluation. This instrument was peer reviewed by the Title I teachers and university professors in order to establish reliability and validity. Based on feedback from this expert group, the researcher changed the self-assessment to make the Likert scale levels clear for parents. In addition, idioms were removed from the self-assessment in order to make the directions accessible to all readers. In order to anticipate the possibility that parents may mark the same score for each strategy, the researcher also changed the self-assessment from one page that included all three self-assessment to three separate self-assessments. Parents engaged in the simulation, self-assessed, and then turned it in to the Title I teacher before moving on to the next strategy. The researcher chose to do this to increase the reliability of each self-assessment by having parents assess at three separate occasions instead of all at once.

Reading logs were data collection instruments (see Appendix F). The researcher used this instrument to collect data regarding reading volume and repeated readings and strategy usage. This quantitative data allowed the researcher to describe home reading routines that took place during the summer and enabled the researcher to further correlate this data with the differences in ORF scores. Using the reading log, reading volumes were coded based on the number of books for chapters read and the researcher assigned a code such as low, moderately low, moderate, moderately high, and high. A low volume

was assigned to a student who recorded an average zero to 0.99 books a week. A moderately low volume was assigned to a student who recorded an average of one to 2.99 books per week. A moderate volume was assigned to a student who recorded an average of three to 4.99 books per week. A moderately high volume was assigned to a student who recorded an average of five to 6.99 books per week. A high volume was assigned to a student who recorded an average of seven or more books per week. The reading logs were peer reviewed by the Title I teachers and university professors in order to establish reliability and validity. The researcher made changes based on feedback collected through phone conversations and electronic correspondences with these experts from the field. The researcher added an additional column to the end of the reading log in order to account for repeated readings that may occur over multiple days. Some students may read a book repeatedly but not all in one day. The last column of the reading log allowed the researcher to determine patterns for repeated readings that occurred within a day as well as readings that occurred repeatedly over the course of the summer.

The researcher also gathered quantitative data from the students' reading logs (see Appendix F). The reading logs were quantitatively analyzed to calculate the mean regarding reading volume, repeated readings, and reading strategy usage. This allowed the researcher to determine the impact of each of these variables on summer reading loss for the sample as a whole.

Throughout the summer, the teachers took anecdotal notes regarding their phone contact with parents using a parent contact log (see Appendix G). Transcriptions from the anecdotal notes were analyzed qualitatively, combined with data collected from the questionnaires, and then coded for common themes. An online word analysis tool (www.wordle.com) was utilized as an initial supplementary tool for content analysis.

home reading routines during the summer. A weak theme was described as a theme that occurred in 1-34% of the responses. A moderate theme was described as a theme that occurred in 35-67% of the responses. A strong theme was described as a theme that occurred in 68-100% of the responses. The contact log was peer reviewed by the Title I teachers and by university professors in order to validate the instrument. Based on feedback from the expert reviews, the researcher added specific questions to guide each phone conversation so that common topics were discussed among all of the participants. Questions included the following:

1. How often is your child reading?
2. What types of materials does your child choose to read the most?
3. Have you used any of the repeated reading strategies that you learned at the seminar? If so, how is that going? If not, why not?
4. Has your child recorded their reading on the reading log?
5. Do you have any questions or concerns?

Additional conversation topics may have been discussed during the ongoing support provided through the Title I teacher. Therefore, any additional concerns or questions that parents had were also recorded on the contact log.

At the end of the summer, during the first week of the new school year, the Title I teachers disseminated a questionnaire (Appendix H) in order to follow up with parents at the end of the summer. Questionnaire items included prompts that elicited feedback regarding home literacy, reading routines, motivation, and parent perceptions of summer reading loss. The questions were multiple choice, and four questions elicited additional explanations through open-ended response boxes and clarifying questions. Themes were coded and related to these overarching topics to answer the research questions.

These data were used in conjunction with data gathered from the reading logs and contact logs. This qualitative data added to the researcher's knowledge of the participants' home reading routines and allowed the researcher to gather a more detailed description of the behaviors, feelings, and perceptions regarding reading and summer reading loss. By triangulating data among the reading logs, questionnaires, and contact logs, the researcher was able to gain a well-rounded understanding of reading routines. This questionnaire was peer reviewed by Title I teachers and university professors in order to validate the instrument. The initial questionnaire consisted of only open-ended responses. In order to increase ease of use and in an effort to increase the number of responses, the questions were revised to include multiple-choice responses with extended response questions as necessary. The written responses were transcribed and thematically analyzed for common themes such as the frequency of each type of reading activity, amount of time spent reading, parent-child reading interactions, reading strategy usage, parent-teacher contact, and any other unforeseen themes that arose from the data. A weak theme was described as a theme that occurred in 1-34% of the responses. A moderate theme was described as a theme that occurred in 35-67% of the responses. A strong theme was described as a theme that occurred in 68-100% of the responses. Additionally, the researcher used the questionnaire to determine cumulative percentages for the multiple-choice questions. The same strength code was applied to those questions in order to determine themes.

Instructional Design

Instructional strategies, objectives, and planning. Research suggests that just giving children books is not an effective strategy for summer reading loss (Kim & White, 2011; Mraz & Rasinski, 2007). The amount of reading and the type of reading are

important factors. Because parents in the Deck (2011) study believed that the parent development workshop had a positive impact on their home reading routines, the researcher designed a seminar that was provided to parents that taught them ORF strategies to use at home. Additionally, this study offered ongoing support through face-to-face or telephone communication in order to adhere to best practices for professional development and adult learners (Rasinski & Stevenson, 2005).

The parent development seminar in this study was designed using a model presented in *Designing Effective Instruction* (Morrison et al., 2007). The researcher chose this model because it is comprehensive and considers many details that improve the quality of instruction and the learner's access to the content. The parent development seminar was based on a research-based instructional design model (Morrison et al., 2007) developed to target adult learners (Morrison et al., 2007), home literacy (Morrow et al., 2006; Mraz & Rasinski, 2007; Waldbart et al., 2006), and ORF (Beers, 2003; Kuhn, 2005; Padak & Rasinski, 2006; Rasinski, 2000; University of Canberra, 2011a, 2011b, 2011c). Due to Heyns's (1978) findings regarding the importance of family attitudes toward education and parent-child interactions, this study was designed to increase parent-child interactions during the summer by training parents on ways in which to engage in a reading experience with their child through NIM (choral), echo, and partner reading. In addition, Rasinski and Stevenson's (2005) findings had a significant impact on the design of this study regarding parent development and summer reading loss. Considering that Rasinski and Stevenson's study found that the Fast Start program was most beneficial to lower ability students, this researcher aimed to determine the impact of home-based repeated reading strategies on struggling readers.

Parent development and ongoing contact found in Rasinski and Stevenson's

(2005) study was a basis for a portion of this study's instructional design. Though participating parents were not taught how to use a program, they were taught how to implement reading strategies with their child at home during the summer. The home-based reading strategies from Morrow et al.'s (2006) study were the basis for the reading strategies chosen for this study. Parents were also contacted by telephone or face-to-face during the summer to offer further support, as demonstrated in Rasinski and Stevenson's study.

In this study, the researcher was the parent development instructional designer, but Title I teachers at each school implemented the parent seminar and ongoing communication during the summer. The researcher/instructional designer created a wiki for Title I teachers to use during the seminar that included embedded videos, files, and other instructional materials. The researcher aimed to determine the impact of parent development on home reading routines (volume and strategies) and summer reading loss through high quality, research-based parent development that merged fluency strategies (echo, NIM, shared, or repeated readings) with home literacy routines. Based on the literature (Morrow et al., 2006; Padak & Rasinski, 2006) parents were encouraged to utilize at least one of the reading strategies with selected passages or short books (approximately 100 words or less). A short poem was provided to students and parents during the seminar so they could practice fluent reading with their parents. Additionally, the researcher/instructional designer combined quick and easy fluency strategies, reading motivation and accountability (reading logs), with solid instructional strategies for parent training, in order to determine the impact on summer reading loss.

The four components of this instructional model are learners, objectives, methods, and evaluation (Morrison et al., 2007). At the seminar, parents were provided with

materials for summer reading, reading strategies to use at home (University of Canberra, 2011a, 2011b, 2011c), opportunities to practice the strategies, and ongoing support from the Title I teacher during implementation at home.

Gambrell (2011) identified the Seven Rules of Engagement for improving reading motivation (Figure 5). The researcher/instructional designer considered these rules while planning and designing the parent seminar and home-based reading program. All students, whether their parents attended the development session or not, received their choice (Rule Four) of six to eight books on their reading level. They were also provided numerous short texts such as poems, readers' theater, jokes, online links, and songs. Providing students with reading choice increases the likelihood that they will engage in more reading during the summer (Gambrell & Marinak, 2009).

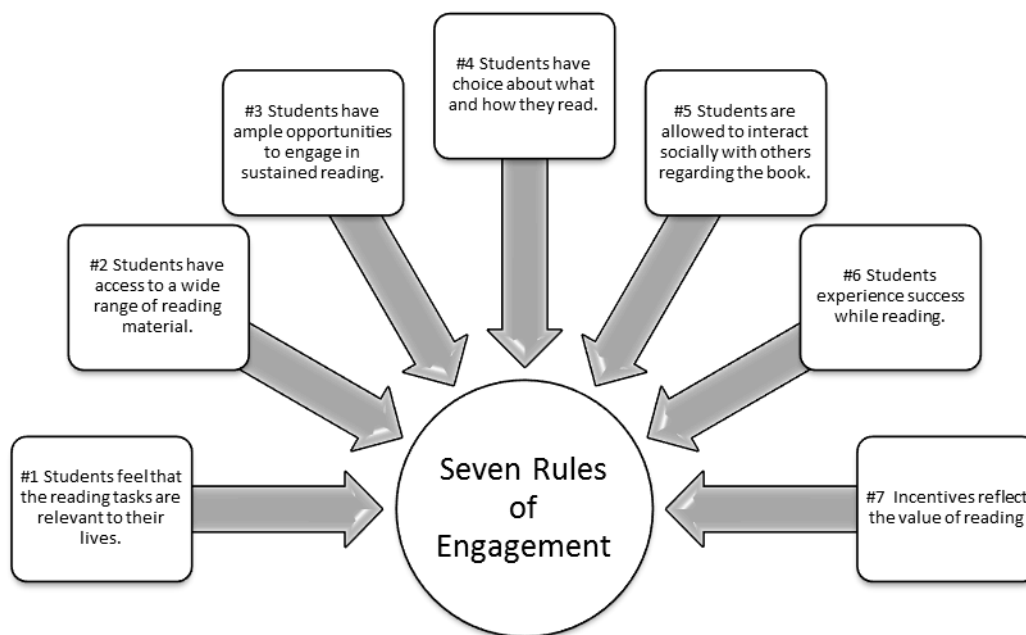


Figure 5. Gambrell's Seven Rules of Engagement.

By reading books and other texts of interest, the home-based summer reading program encouraged students to read for enjoyment or to gain knowledge (Rule Seven).

By providing a number of poems, jokes, online reading links, and other reading materials in addition to their books, students were provided with a wide range of text accessible from home. A local library was also located within eight miles of each school, so students had access to a wide range of various texts (Rules One and Two) in close proximity to their homes. Two of the three schools, Julius Elementary School and Compass Rose Elementary School, decided to open their school libraries once a week for book checkout this summer as well. Students could find texts that were applicable and relevant to their lives outside of the classroom. By implementing the reading strategies that parents and students learned during the development session, students were given many opportunities to read and feel successful through repeated readings and with support from their parents (Rules Three and Six). By reading together, parents and children had the opportunity to interact socially around the context of the collaborative reading experience (Rule Five).

Title I teachers from four schools were trained in the parent development session for rising third-grade Title I parents. The researcher met with the Title I teachers in the spring of 2013 to go over the instructional materials and to organize and plan the summer packets. All four schools ordered from the same book publisher, giving the students a choice of six to eight books on their reading levels. The books were ordered in late February after the mid-year assessments. Mid-year universal screenings and benchmark assessments are conducted in January of each year. Based on the mid-year assessment in January 2013, Title I teachers had up-to-date reading assessment data for each student. By ordering the books at this time, the Title I teachers could ensure that the books were closest to the students' reading levels at the end of the school year.

Each school's Title I funds were used to pay for the summer reading materials and

workshop instructional supplies. Annually, each school is responsible for providing parent involvement events and summer reading packets to their Title I students. Funds used for the study did not exceed funds that would have been spent for parent involvement at each school. The four schools utilized the same parent development training materials and student summer reading packets in order to protect the validity of the study. One school, Compass Rose Elementary, was able to provide students with eight books. Whispering Brook and Julius Elementary Schools provided their students with six books. Three of the four schools implemented the planned parent development seminar for Title I parents and Title I rising third graders. Title I parents at Compassion Elementary School did not attend the planned parent development seminar. Further explanations of parental involvement barriers at Compassion Elementary are detailed in Chapter 4.

There were three learning objectives for this parent development seminar, one from each of the domains (see Table 6). The seminar included demonstrations, simulations, and self-assessments as key instructional strategies. The psychomotor, cognitive, and affective learning objectives were assessed during and after each simulation through self-assessment and teacher observation (formative assessment). The parents learned three repeated reading strategies to try at home (cognitive), how to implement the strategies with their child (psychomotor), and that parental involvement is imperative to a child's literacy development (affective). Title I teachers observed the simulations in order to offer constructive, positive feedback to the parents.

Table 6

Learning Objectives

Domain	Learning Objective
Psychomotor	By the end of this instructional unit, the parents will be able to apply fluency strategies such as NIM, echo, and shared readings.
Cognitive	By the end of this instructional unit, the parents will understand the theories of these strategies as they relate to ORF.
Affective	By the end of this instructional unit, the parents will feel empowered by the new knowledge they have about reading fluency strategies.

Parent development seminar procedures. The three schools that were able to implement the parent development seminar utilized the same presentation created on a wiki (<http://readingstrategiesforparents.wikispaces.com>) to ensure that all seminars were organized in the same manner and all parents were presented with the same information using the same materials (print and electronic). The proposed agenda (Table 7) included strategic instructional methods such as simulations, demonstrations, and self-assessment.

Parents were introduced to summer reading loss and the impact it can have on a student's reading development over time. Then parents learned how to implement three repeated reading strategies by watching a video demonstration and then practicing the strategy with their child using a short poem from the Friendly Folder (contains short reading material such as poems, jokes, readers' theater, songs, etc.). After experiencing the strategy through a hands-on simulation, parents completed a self-assessment to rate their ability to implement the strategy with accuracy. As formative assessment, teachers looked for ratings of three, four, or five to signify a positive self-assessment. Title I

teachers provided individual instruction for any parent who self-assessed with a rating of zero, one, or two. This instructional three-part pattern including demonstrations, simulations, and self-assessments continued for each reading strategy: NIM, echo, and shared reading.

Following the strategy instruction, Title I teachers explained the reading log to the parents and students. They emphasized the importance of keeping accurate records during the summer in order to gather valid data. Title I teachers emphasized that all books/chapters read should be recorded in the log, even if they had been read previously. They directed parents' and students' attention to the column that indicated that books had been read more than once during the day or previous days and explained how to indicate that routine on the reading log. Next, parents and students were given the opportunity to explore the Friendly Folder, which contained numerous concise texts that students could choose to use for repeated practice during the summer.

Table 7

Proposed Parent Development Seminar Agenda

Sample Time	Agenda
5:00pm	Welcome
5:05pm	The Summer Reading Loss Phenomenon
5:10pm	Reading Strategy: NIM reading <ul style="list-style-type: none"> • Video Demonstration • Simulation with Students • NIM Self-Assessment
5:20pm	Reading Strategy: Echo reading <ul style="list-style-type: none"> • Video Demonstration • Simulation with Students • Echo Reading Self-Assessment
5:30pm	Reading Strategy: Shared Reading <ul style="list-style-type: none"> • Video Demonstration • Simulation with Students • Shared Reading Self-Assessment
5:40pm	Reading Log
5:45pm	Friendly Folder Resources
5:50pm	Parent Contact
5:55pm	Questions
6:00pm	Students can choose books from the selection tables.

Following explanations regarding the reading and Friendly Folder resources, Title I teachers discussed the plan for ongoing support with the parents. Title I teachers contacted the parents who attended the seminar via telephone or face-to-face communication. Parents were asked about their reading routines, repeated reading strategies, and the reading log, and were offered any other guidance that the parent needed in order to support their child's reading development over the summer.

Discussion questions included, but were not be limited to:

- How often is your child reading?
- What types of materials does your child choose to read the most?

- Have you used any of the repeated reading strategies that you learned at the seminar? If so, how is that going? If not, why not?
- Has your child recorded all of their reading on their reading log?
- Do you have any questions or concerns?

After explaining the parent contact plan, Title I teachers took time to answer any questions related to the home-based summer reading program. Students were then given the opportunity to choose six to eight books to take home and read over the summer (White & Kim, 2008). Books were arranged on tables according to reading level. Students were also given information about the local library, located within eight miles of the schools. There are four public libraries in this district, one in each of the four school zones of which these schools represent. Compass Rose Elementary and Julius Elementary Schools opened their school libraries once per week during the summer, and parents received face-to-face communication with the teacher at each visit. Whispering Brook Elementary School communicated with parents via telephone during the summer. Students who did not attend the parent seminar were given the opportunity to choose their books the following day during school hours.

Mutual adaptations. Because the study was conducted in three different schools, there were mutual adaptations made to the materials provided to students during the summer at two schools. These changes were based on school decisions to open the school libraries during the summer and to provide students with more books because funds were available. Two of the schools, Compass Rose and Julius Elementary Schools, opened their school libraries once a week for students to check out books and take Accelerated Reader quizzes upon request. Compass Rose also provided students with

eight books of their choice instead of six and prizes for updated reading logs each week. Prizes were comparable to those given as part of their classroom routines during the school year. Because the researcher did not want to withhold any educational opportunities participants may have during the summer, the adaptation was made and noted. Additionally, Compass Rose provided an interpreter and Spanish versions of the materials to three English language learners (ELL) in attendance at the parent development seminar. The three ELLs did not choose to participate in the study.

Research Design

This mixed-methods study utilized a quasi-experimental, nonequivalent control group design model (Creswell, 2008; Creswell & Clark, 2006; Gall et al., 2006; Trochim, 2006). A mixed-methods design was used in order to gather data through quantitative and qualitative methods with an equal emphasis on quantitative and qualitative data collection. By using a QUAN-qual design, the researcher was able to test hypotheses using quantitative data and further explain outcomes using qualitative data (Gall et al., 2006). Qualitative data also provided the researcher an opportunity to triangulate the data in order to gain a well-rounded understanding of the data. The researcher gathered data through multiple sources including pretest/posttest of students' ORF (difference in raw scores) and written responses (reading logs, parent contact logs, and questionnaires) to describe and analyze summer reading routines. These data collection tools, in addition to parent self-assessments, were used to determine the impact of parent development on summer reading loss. The researcher also collected data reviewing individual school report cards (public records) for demographic information.

This study also compared the treatment group to a nonequivalent control group (Triplett, 2009) at one of the schools. True to a quasi-experimental, nonequivalent

control group design, which is commonly used for educational research studies (Gall et al., 2006; Trochim, 2006), participants were not randomly assigned and the researcher acknowledges that all outside factors cannot be controlled. To answer the research questions regarding the impact of parent development on students' ORF after summer vacation, the researcher utilized a nonequivalent control group design in addition to qualitative research methods. The treatment and control groups were determined based on parents' willingness to participate in the parent development session. A control group option was offered at all schools but only one school had participants choose the control group. In order to account for the differences in each group's pretest scores and protect internal validity, the researcher applied a one-way analysis of variance (ANOVA) to make compensating adjustments to posttest scores so that the groups could be compared to determine impact (Gall et al., 2006).

More specifically, the methodology for this quasi-experimental study utilized the regression-discontinuity research design model in order to select participants (Trochim, 2006). Specific to this model, students and parents were invited to participate and the treatment was provided for parents and students identified as lower achieving students with need for academic intervention. This was determined because they qualified for Title I services based on weighted selection criteria. Participant selection was based on ranked scores using a criteria sheet, common to all Title I schools in this district (see Appendix B).

The students and parents were included in the study based on their willingness to participate and to commit to using the strategies during the summer. Upon consent, parents who chose not to participate in the parent development session (treatment) could choose to participate as part of the control group, which is characteristic of the

regression-discontinuity research design model (Trochim, 2006; see Table 8). As another measure for protecting internal validity, the control group in this study was equivalent in grade level and Title I identification, which indicated that students in both groups struggle in reading to varying degrees. Internal validity was also protected by gathering data from schools in each of the four zones in the district, one per zone. This helped account for differences in rural, suburban, and urban populations.

In Figure 6, participants chosen based on cut-off scores (Title I students) are represented by C_1 or C_2 . An O represents the pretest/posttest observations, and X represents the treatment. The difference between pretest and posttest ORF data were compared to the control group at each school. The ORF data were also compared to local and national data that identified the longitudinal trend for summer reading loss between spring and fall assessments nationwide and locally (see Tables 1 and 2). Hasbrouck's (2012) ORF *zones* were used to identify the students' proficiency levels and to disaggregate data according to average and low-performing students. Hasbrouck identified struggling readers as the *red zone* and more proficient readers as the *green zone* based on ORF (rate) at the end of second grade. This allowed the researcher to determine if the average loss is more, less, or equal to the amount of loss recorded on local and national norms. It also allowed the researcher to analyze the data based on present level of performance (in May) and to determine impact based on students' ORF zones. This information was collected so that recommendations could be made based on present level of ORF if data supported significant differences in the two groups.



Figure 6. Regression-Discontinuity Research Design Model.

Data were analyzed by applying a paired t test to determine if there was a significant difference between the changes in ORF pretest/posttest scores ($p < 0.05$). Then a one-way ANOVA was applied to determine the impact of parent development on students' summer reading losses. Additionally, the researcher used qualitative analysis (coding for common themes) using data from the questionnaires, contact logs, and reading logs to determine the impact of the parent development seminar and home-based summer reading program on students' summer reading losses.

Data Collection and Analysis Procedures

In August 2013, the researcher utilized Title I staff at each school to administer the posttest using the end-of-year benchmark stories used in May. Title I teachers assessed students using the same three stories used in the pretest and then determined the median score to report to the researcher. These are the same procedures that were used to report pretest scores from the May assessments. This allowed the researcher to compare pretest and posttest scores using a standardized assessment with the same instrument, the same stories. This pretest/posttest assessment design increased internal validity.

To answer the research questions (Table 8), the researcher used various quantitative and qualitative instruments to collect and analyze data in order to reject or accept the null hypotheses. By using a mixed-methods approach through examining pretest/posttest scores, self-assessments, and reading logs, in addition to data analyzed from the questionnaires and parent contact logs, the researcher was able to gain "a better understanding of research problems than either approach alone" (Creswell, 2008, p. 5).

To answer Research Question 1, "What is the impact of the parent development session on parents' abilities to demonstrate mastery of reading strategies," the researcher collected parents' self-assessments (see Table 8; see Appendix E) after the development

session. The assessments were labeled with a corresponding alphanumeric identification number so that the self-assessments could be analyzed in relation to their child's pretest/posttest scores. The self-assessment was a five-level Likert Scale to determine the level of mastery parents felt they had accomplished in implementing the reading strategies with their child at home.

Parents rated their ability to implement each repeated reading strategy following the simulation with their child. They rated themselves in response to the question, "How confident are you in your ability to do this repeated reading strategy with your child at home?" The five-level scale included numeric responses from least confident (one) to extremely confident (five). This allowed the researcher to determine the overall mean assessment score for each parent and cumulative percentages regarding mastery as a result of the parent development seminar.

The degree of impact was determined by comparing the mean score to the following criteria:

- Less than three will indicate no impact
- Equal to three will indicate some impact
- Greater than three will indicate high impact

Research Question 2, "What is the impact of summer reading volume on summer reading loss as measured by ORF," was answered by collecting data using reading logs, questionnaires, parent contact logs, and pretest/posttest ORF scores from May and August. Using the reading logs, each participant's summer reading volume was determined based on the average number of books/chapters read per week (initially or repeatedly read) and the total number books read during the summer (initially or

repeatedly read). Weekly reading volume (average) was then converted into a code based on the following:

- “Low” 0-0.99
- “Moderately Low” 1.00-2.99
- “Moderate” 3.00-4.99
- “Moderately High” 5.00-6.99
- “High” 7.00 or more

The pretest/posttest scores were used to determine the difference between May and August ORF scores. This difference was used to determine the amount of words lost, maintained, or gained over summer vacation. The differences in May and August ORF scores were displayed on a frequency distribution chart. The Shapiro Wilk Test of Normality was conducted to determine if the sample had a normal curve.

Following this test, a boxplot was created to determine if the sample data included outliers. When no outliers were found, a paired samples t test (correlation) was applied to determine if there was a significant difference in pretest/posttest scores based on reading volume whereas $p < 0.05$ to indicate significance. A one-way ANOVA was also applied in order to determine the impact of reading volume (average weekly book average code and total number of books read) on students' ORF after summer vacation (difference between May and August ORF scores). The researcher determined significance based on the 95% confidence interval ($p < 0.05$).

In addition, the researcher used data collected from the questionnaires and contact logs to further analyze the impact of reading volume. Initially, the researcher conducted a word frequency analysis using Wordle to gain an understanding of the text. Then the

researcher used strength coding to determine common themes. The strength code was as follows:

- 0-33% weak theme
- 34-66% moderate theme
- 67-100% strong theme

Research Question 3, “What is the impact of reading strategies (echo, NIM, shared, or repeated readings) on summer reading loss as measured by ORF,” was answered by collecting data using reading logs, pretest/posttest ORF scores from May and August, questionnaires, and parent contact logs. Using the reading logs, data regarding the number of books repeatedly read (at least twice) were collected. The researcher determined the total number of daily repeated readings recorded per student. The difference in pretest/posttest ORF scores was used to determine a correlation with the number of daily repeated readings during the summer. A one-way ANOVA was applied to determine if there was a significant difference between the number of books read repeatedly and the difference in the participants’ May and August scores. Statistical significance was determined based on the 95% confidence interval ($p < 0.05$).

In addition to quantitative data, the questionnaire and parent contact logs served as valuable data collection instruments in order to answer this research question. Cumulative percentages were calculated to analyze the multiple-choice questions. Written responses on the questionnaires were transcribed and initially analyzed using Wordle. By using this word frequency analysis, the researcher was able to gain an initial understanding of common words used in the responses in order to aid in theme analysis. The responses related to the repeated reading strategies were coded for themes. Specific

themes from the literature were also analyzed such as home literacy routines, parent-child reading interactions, student attitudes toward reading, and any other unforeseen prevalent theme that was found in the data. The researcher utilized the same strength coding to analyze this question as in Research Question 2.

Quantitative and qualitative instruments were used to answer Research Question 4, “What is the impact of parent development and home-based summer reading on summer reading loss as measured by the difference in May and August ORF scores,” through parent development session attendance records, reading logs, the difference in pretest/posttest ORF scores, parent contact logs, and questionnaires. Using these data, the researcher aimed to determine the impact of parent development attendance on students’ ORF after summer vacation, as well as the impact specific component of the parent development instructional model had on the difference in students’ pretest/posttest scores. Control group participants’ pretest/posttest differences were analyzed to determine the impact of parent development on ORF after summer vacation (only at Whispering Brook Elementary School) by applying a one-way ANOVA. The researcher determined significance based on the 95% confidence interval.

Data from the parent contact logs, reading logs, and questionnaire were coded for common themes and further analyzed using qualitative methods. These data were used to further explain quantitative findings and added to the researcher’s understanding of the research problem. The same strength codes were used to determine themes found in the questionnaires, contact logs, and reading logs as were used in Research Questions 2 and 3.

Table 8

Research Questions, Instruments, and Analysis Alignment

Research Question	Data Collection Instruments	Analysis	Specifics
RQ 1: What is the impact of the parent development session on parents' abilities to demonstrate mastery of reading strategies?	Likert Scale Parent Self-Assessment	Frequency Distribution Table	Mean and cumulative percentages; Lack of Mastery if mean score < 3 Neutral Mastery if mean score = 3 Positive Mastery if mean score > 3; 80% or higher will indicate positive impact
RQ 2: What is the impact of summer reading volume (number of books initially or repeatedly read) on summer reading loss as measured by the difference in May and August ORF scores?	Reading Log, DIBELS Next ORF Pretest/Posttest, questionnaire, parent contact log	Paired Samples t test, one-way ANOVA, Strength code reading log weekly volume, Transcribe and code for common themes	Mean and Cumulative Percentages, Weekly Volume is low if 0-0.99 days of reading, moderately low if 1.00-2.99, moderate if 3.00-4.99, moderately high if 5.00-6.99; very high if 7.00 or higher; $P < 0.05$; Code for common themes using strength codes (based on % of sample)
RQ 3: What is the impact of reading strategies (echo, NIM, shared, or repeated readings) on summer reading loss as measured by the difference in May and August ORF scores?	Reading Log, DIBELS Next ORF Pretest/Posttest Questionnaires, contact logs	Paired Samples t test, one-way ANOVA, Transcribe and code text for common themes	Mean and Cumulative Percentages; $P < 0.05$; Strategy usage code is low if 0-33% of books read with a strategy, moderate if 34-66%, high if 67-100%; Code questionnaire and notes for common themes; Strength codes (based on % of sample)
RQ 4: What is the impact of parent development on summer reading loss as measured by the difference in May and August ORF scores?	Parent Self-Assessments, DIBELS Next ORF Pretest/Posttest, questionnaires, contact logs, reading logs	One-way ANOVA Paired Samples t test, Transcribe and code for common themes	Mean and Cumulative Percentages, Compare with nonequivalent control group, $P < 0.05$, Code for common themes; Strength codes (based on % of sample)

In Chapter 4, the research presents collected data and analysis using SPSS software and qualitative thematic coding. Using the research design described in Chapter 3, Chapter 4 details research findings for each research question and the researcher

provides details about statistical significance and thematic strength based on all of the quantitative and qualitative data collected. Chapter 5 entails the researcher's interpretation of the data, limitations to the study, and recommendations for future research.

Chapter 4: Results

Introduction

For decades, researchers have aimed to determine ways in which to reduce summer reading loss (Neidermeyer, 1970). This is a problem for low-income families and struggling readers. Due to lack of formal instruction and access to books, students may lose up to 2 years of reading development by the time they reach sixth grade (Kim & Guryan, 2010; McGill-Franzen & Allington, 2001). This is in addition to any reading deficits which the students already possess. Based on the literature, parent involvement, home-based instruction, and access to books have been summer reading loss indicators for students of all ages (Deck, 2011; Hindin & Paratore, 2007; Kim & Guryan, 2010; LeFevre & Senechal, 2002; Allington & McGill-Franzen, 2008; Morrow et al., 2006; Neidermeyer, 1970; Rasinski & Stevenson, 2005; Triplett, 2009). In this chapter, the researcher presents findings from all data collection tools: pretest/posttests, self-assessments, reading logs, parent contact logs, and open-ended questionnaires. Results from qualitative and quantitative analyses are displayed in tables and accompanied by narrative descriptions.

Research Questions

This study focused on four research questions in order to determine the impact of parent development and a home-based, reading program on rising third graders' summer reading losses as measured by ORF (correct words read per minute). Research Questions 1, 2, and 3 focus on individual components of the parent development and home-based summer reading program. Research Question 4 focuses on the impact that parent development (holistically) had on students' amount of summer reading losses.

Research Question 1. What is the impact of the parent development seminar on

parents' abilities to demonstrate mastery of reading strategies?

Null Hypothesis 1. Parent development has no impact on parents' abilities to demonstrate mastery of reading strategies.

Research Question 2. What is the impact of summer reading volume (number of books initially and repeatedly read) on summer reading loss as measured by the difference in May and August ORF scores?

Null Hypothesis 2. Summer reading volume (number of books initially and repeatedly read) has no impact on rising third graders' summer reading losses as measured by the difference in May and August ORF scores.

Research Question 3. What is the impact of reading strategies (echo, NIM, shared, or repeated readings) on summer reading loss as measured by the difference in May and August ORF scores?

Null Hypothesis 3. The use of reading strategies (echo, NIM, shared, or repeated readings) has no impact on rising third graders' summer reading losses as measured by the difference in May and August ORF scores.

Research Question 4. What is the impact of parent development and home-based summer reading on summer reading loss as measured by the difference in May and August ORF scores?

Null Hypothesis 4. Parent development and home-based, summer reading have no impact on rising third graders' summer reading losses as measured by the difference in May and August ORF scores.

Participants

In this study, participants included rising third graders and their parents from four Title I elementary schools in a western North Carolina (Tables 4 and 5). The schools

represent each of the four zones within the same district. Table 9 indicates the number of participants per school for treatment and control groups. Data were disaggregated by school as well as by total population from all schools combined. Parent participants are equivalent to student participants. In order to participate as part of the treatment group, the student must have had at least one parent or guardian attend the parent seminar and agree to participate in the study. Adult and child participants signed a consent form agreeing to participate as part of either the treatment or control group. Students and parents/guardians who agreed to participate as part of the control group received all materials that the treatment group received. The only difference in the treatment group was their participation in the parent development seminar and ongoing communication during the summer. Also included in Table 9 is the percentage of students who participated who were eligible to participate (i.e., rising third-grade Title I students). This data are included in order to give the reader a clear picture of the size of each Title I program (rising third grade only) and the amount of participation from each school.

Table 9

Participants by School

Participating School	Treatment (T)	Control (C)	% Third Graders Title I Students
Compassion Elementary	0	0	0%
Whispering Brook Elementary	6	4	35.3% (T) 23.5% (C)
Julius Elementary	3	0	30%
Compass Rose Elementary	5	0	45.5%

Compassion Elementary had no participants. There were six rising third graders in their program and a total of 50 students served (kindergarten through fourth grade.)

On June 9, 2013, the Title I teacher from Compassion Elementary (pseudonym edited by the researcher) emailed the researcher the following information (see Appendix I)

We had our parent session on Thursday in conjunction with another parent event in hopes of having more parents show up. We only have 6 2nd graders and unfortunately none of them came. We do have one 2nd grade parent who is a teacher at Compassion (pseudonym) who has agreed to be in the control group. I'm very sorry about this, but it is just very hard to get our parents to come to things. Most of them don't have transportation. (Anonymous, personal communication, June 9, 2013)

The researcher and the teacher decided that it would be best not to include the parent mentioned above as part of the control group. This was decided because the parent was a teacher at the school. Since parent development was the only difference in the treatment and control groups, the researcher and teacher thought that data would be skewed. Further discussion of Compassion Elementary data as well as recommendations to improve parent involvement is included in Chapter 5.

Whispering Brook Elementary had six treatment group participants. This Title I program served 17 rising third graders. There were four students in the control group at this school; 58.8% (n=10) of the rising third graders at this school chose to participate in the study as part of the treatment (35.3%, n=6) or control group (23.5%, n=4). The participants in the control group from this school were the only control group participants in the study. Because of this, and because of the small sample size, the researcher modified the questionnaire to include more specific questions about the parent development seminar and home-based summer reading program components. The control group data were analyzed and findings are included in this chapter.

Julius Elementary had three treatment group participants. This Title I program served 10 rising third graders, and 30% (n=3) of the rising third-grade Title I students chose to participate in the study. There were no student participants in the control group from this school. Five additional rising third-grade students also participated in the parent seminar and home-based summer reading program. However, because they were not identified as Title I students or served by the Title I program, their data were not included in this study.

Compass Rose Elementary had five participants in the treatment group. This school served 11 rising third-grade students in the Title I program, and 45.5% (n=5) of those students chose to participate in the study. Three English language learners (ELL) attended the parent seminar with their parents. The Title I teacher arranged for an interpreter to be there and the researcher provided Spanish versions of all of the materials. None of the ELL students or parents chose to participate in the study. There were no students in the control group from this school.

Based on Hasbrouck's (2012) ORF zones, the researcher determined each participant's zone color: green, yellow, or red. Table 10 displays students' pretest and posttest scores, local percentile, difference in the two scores, and the identified zone based on their May pretest ORF score.

Table 10

Participant Pretest/Posttest Scores, Differences, and Hasbrouck's ORF Zones

Group	Student Code	Percentile	Hasbrouck's Zones	Pretest	Posttest	Difference
Treatment	WB3	above 50%	Green	101	91	-10
Treatment	WB10	above 50%	Green	102	83	-19
Treatment	CR3	above 50%	Green	99	101	2
Treatment	CR4	above 50%	Green	102	90	-12
Treatment	CR1	above 25%	Green	94	100	6
Treatment	CR2	above 25%	Green	94	89	-5
Control	WB5	above 25%	Yellow	80	78	-2
Control	WB11	above 25%	Red	78	79	1
Control	WB7	below 13%	Red	72	64	-8
Treatment	WB9	below 13%	Red	64	59	-5
Treatment	WB1	below 13%	Red	55	46	-9
Treatment	WB12	below 13%	Red	54	65	11
Control	WB6	below 10%	Red	49	28	-21
Treatment	WB2	below 10%	Red	37	41	4
Treatment	J1*	below 10%	Red	32	44	12
Treatment	J2	below 10%	Red	39	47	8
Treatment	J3*	below 10%	Red	47	61	14
Treatment	CR5	below 10%	Red	35	32	-3

Note. * indicates that the student received 1 hour of tutoring per week during the summer in addition to the home-based summer reading program.

Figure 7 shows the disaggregated data by zone and Figures 8, 9, and 10 display the differences in pretest and posttest scores by zone. Six of the 14 treatment group participants were identified in the green zone. Eight of the 14 treatment group participants were identified in the red zone. Two of the four participants in the control group were identified in the green zone, one participant was identified in the yellow zone, and one was identified in the red zone.

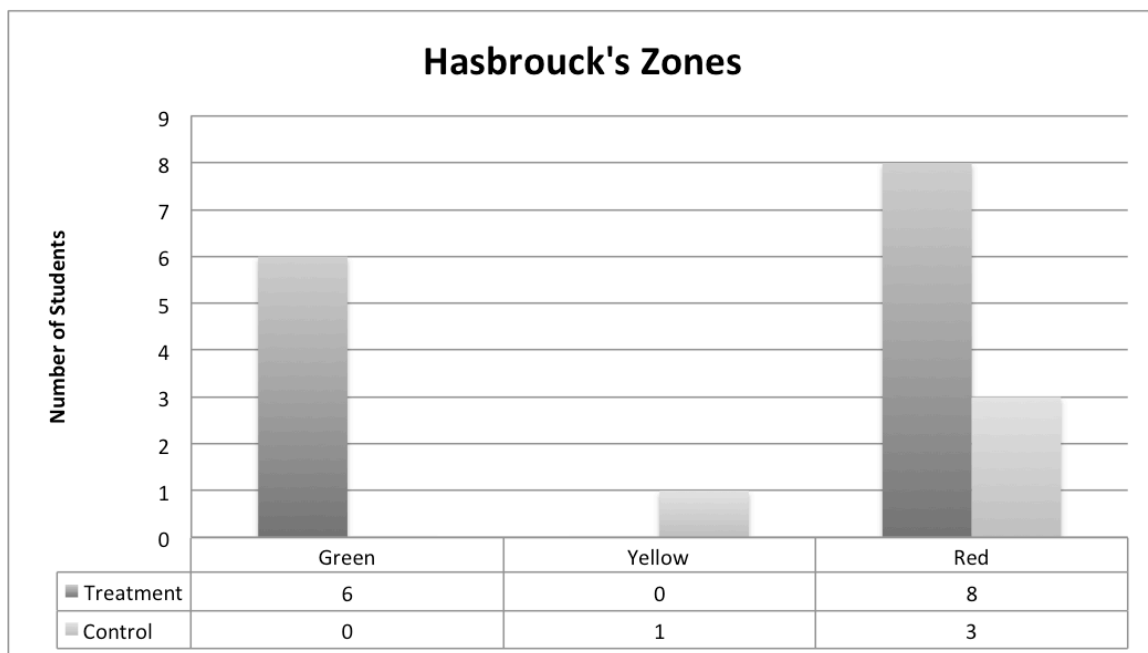


Figure 7. Participants by Hasbrouck's Zones.

The researcher disaggregated the data by zone to analyze the amount of summer reading loss. Figures 8, 9, and 10 display the difference in pretest and posttest scores for each of the zones represented in the treatment group, as well as for the control group.

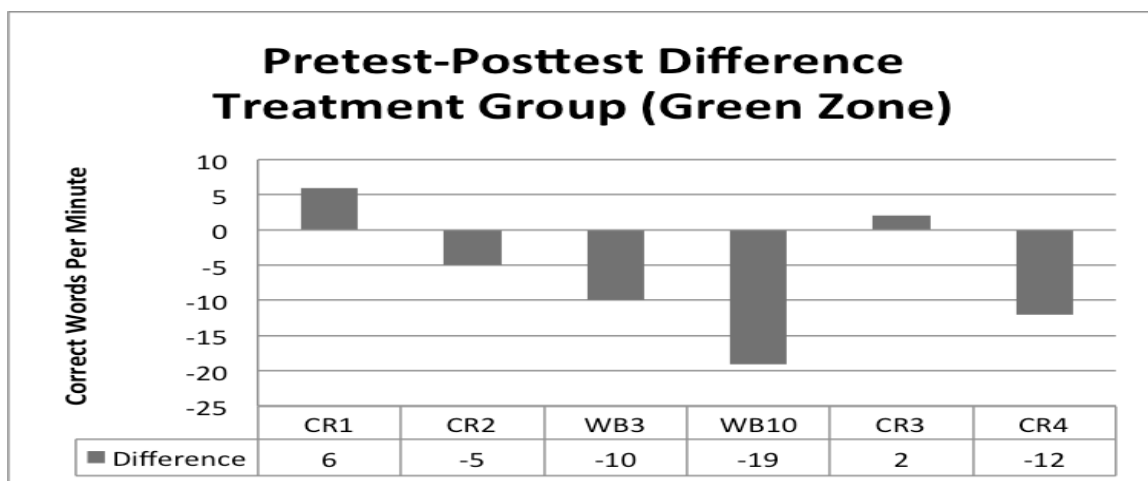


Figure 8. Pretest/Posttest Difference – Green Treatment Subgroup.

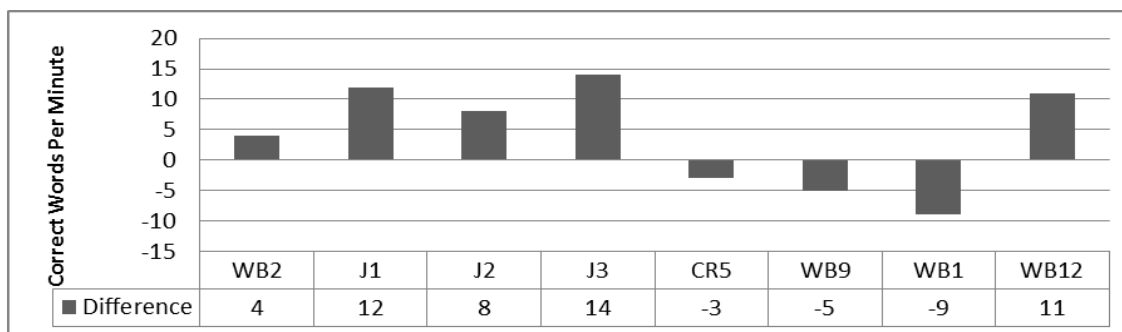


Figure 9. Pretest/Posttest Differences – Red Treatment Group.

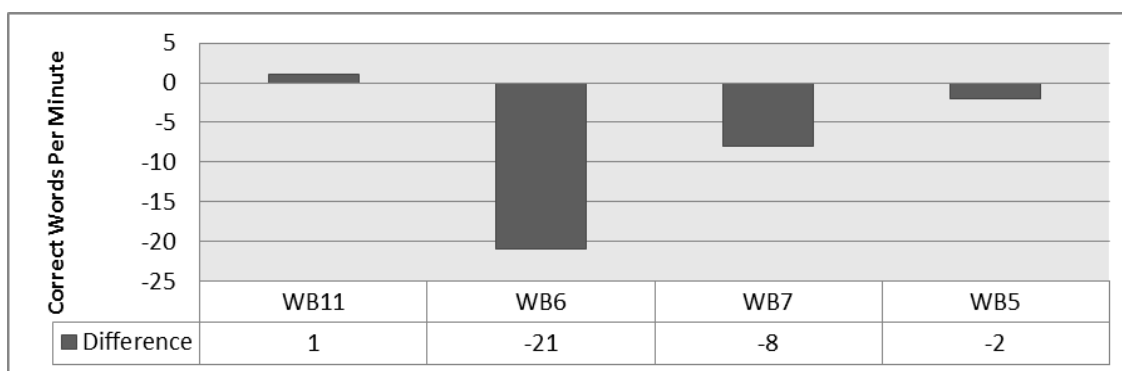


Figure 10. Pretest/Posttest Differences – Control Group.

Findings of the Study

Research Question 1. What is the impact of the parent development seminar on parents' abilities to demonstrate mastery of reading strategies?

Null Hypothesis 1. Parent development has no impact on parents' abilities to demonstrate mastery of reading strategies.

Findings for Research Question 1. The researcher collected data from the parent self-assessment to determine the impact of the parent development seminar on parents' abilities to demonstrate mastery of the reading strategies. At the parent seminar, Title I teachers guided parents and students through demonstrations and simulations to

teach them how to do three reading strategies: echo, NIM, and shared reading. After engaging in a strategy simulation with their child at the parent seminar, parents completed a self-assessment (five-point Likert scale). The average scores were calculated (Figure 11). Based on the following categories, cumulative percentages were calculated to determine the impact on parents' abilities to demonstrate mastery of the three strategies:

- 1.00-2.99 "Negative"
- 3.00 "Neutral"
- 3.01-5.00 "Positive"

Twelve of the 14 parents (86%) had average self-assessment scores that indicated a positive assessment of the three strategies: echo, NIM, and shared reading. Two of the 14 (14%) did not complete the self-assessment at the parent seminar. There were no parents with an average self-assessment score that indicated a negative response. The average self-assessment score for each of the strategies differs from the overall strategy self-assessment average. The NIM strategy has the lowest self-assessment average. One parent rated it with a one and two parents rated it with a three. The rest of the parents rated the NIM strategy with a four or five.

The researcher predetermined that a *positive* self-assessment percentage of 80% or higher would indicate that the parent development seminar had a positive impact on parent's abilities to demonstrate mastery of three reading strategies as measured by the average score of their self-assessments. Based on the data, 86% of parents felt as though they demonstrated mastery of the strategy, with two parents abstaining from the self-assessment. The average assessment score for each strategy was within the positive

response range (Echo M=4.97, NIM M=4.41, Shared M=4.7). Based on quantitative data, the researcher rejects the null.

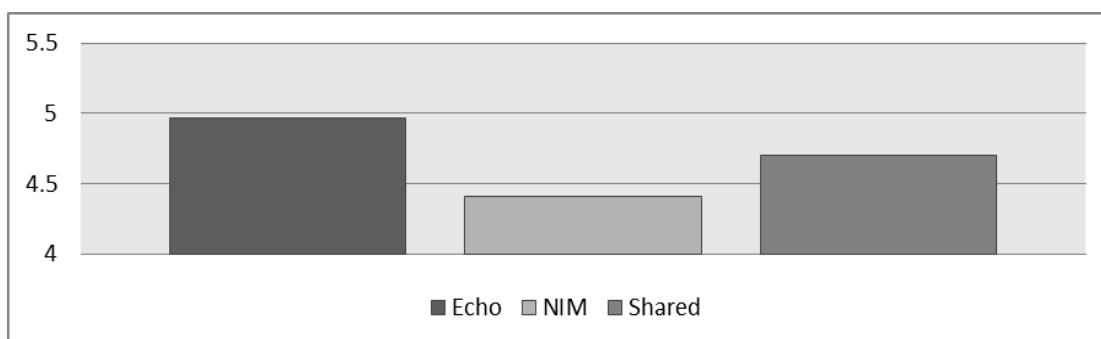


Figure 11. Parent Self-Assessment Scores (by strategy).

Research Question 2. What is the impact of summer reading volume (number of books initially and repeatedly read) on summer reading loss as measured by the difference in May and August ORF scores?

Null Hypothesis 2. Summer reading volume (number of books initially and repeatedly read) has no impact on rising third graders' summer reading losses as measured by the difference in May and August ORF scores.

Findings for Research Question 2. The researcher collected data from the pretest/posttest ORF scores and reading logs to determine the correlation between the amount of summer reading loss (difference in pretest/posttest scores) and the student's summer reading volume. Of the 14 treatment group participants, 64.3% returned reading logs. Table 11 indicates each participant's zone, the difference in the pretest/posttest scores, the student's weekly reading volume code, and the total number of books/chapters read (as recorded in the reading log). Figure 12 shows the reading volume code with percentages for each volume code. The codes are used to analyze the impact of reading volume on the differences in pretest/posttest scores using a one-way ANOVA.

The code used to describe weekly reading volume (books or chapters recorded on the reading log per week) is as follows:

- 0.00-0.99 = “Low”
- 1.00-2.99 = “Moderately Low”
- 3.00-4.99 = “Moderate”
- 5.00-6.99 = “Moderately High”
- 7.00 or more = “High”

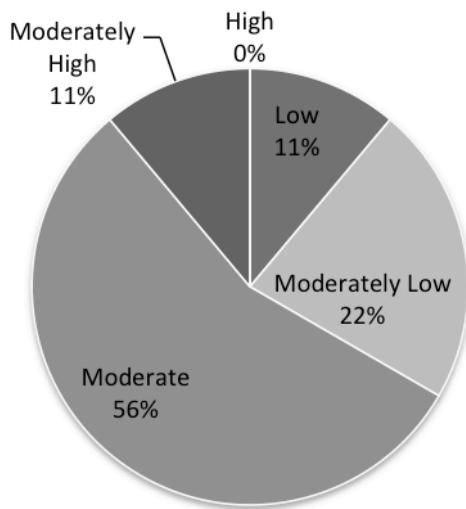


Figure 12. Weekly Book Volume (by code).

In order to determine statistical significance in the pretest/posttest scores, the Shapiro-Wilk test was conducted to determine if the scores were normally distributed and if there were any outliers for which to account. Figure 13 shows the differences in the treatment group’s pretest/posttest scores along the expect outcomes line. This signifies that the difference in the pretest and posttest scores were normally distributed, as assessed by Shapiro-Wilk test ($p=0.736$) as displayed in Table 12. Figure 14 displays a boxplot that identifies outliers. No outliers were detected so the researcher continued with the

paired samples t test.

Table 11

Participant's Average Weekly Reading Volume and Reading Volume Code

Student Code	Hasbrouck's Zones	Difference	Average Weekly Volume	Weekly Volume Code	Total Books Read
WB3	Green	-10	3.82	3	42
WB10	Green	-19	3.12	3	37
CR3	Green	2	No Log	No Log	No Log
CR4	Green	-12	No Log	No Log	No Log
CR1	Green	6	0.82	1	9
CR2	Green	-5	2.5	2	28
WB9	Red	-5	No Log	No Log	No Log
WB1	Red	-9	1	2	11
WB12	Red	11	No Log	No Log	No Log
WB2	Red	4	4.1	3	45
J1	Red	12	6.8	4	75
J2	Red	8	3.73	3	42
J3	Red	14	3.82	3	42
CR5	Red	-3	No Log	No Log	No Log

Note. * indicates that the student received 1 hour of tutoring per week during the summer in addition to the home-based summer reading program.

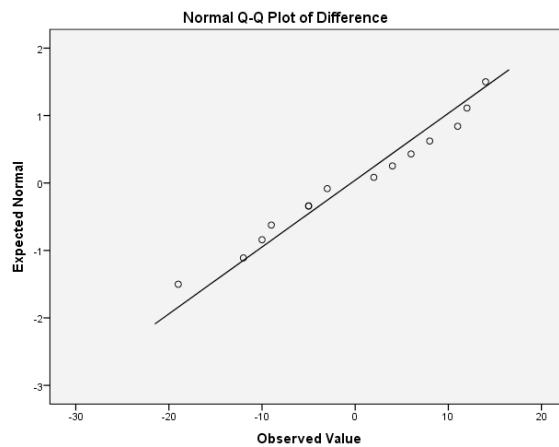


Figure 13. Pretest/Posttest Normal Q-Q Plot of Difference.

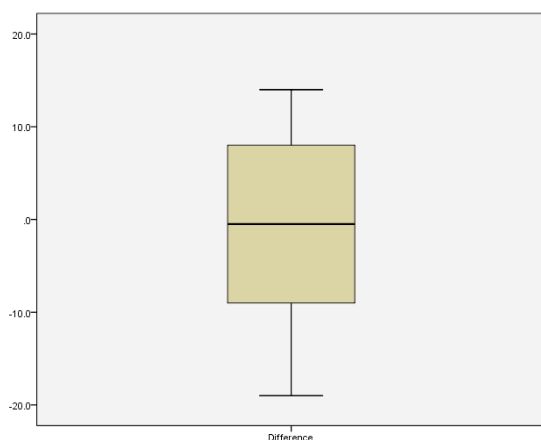


Figure 14. Pretest/Posttest Boxplot (Treatment Group).

Table 12

Shapiro-Wilk Tests of Normality

Tests of Normality						
	Kolmogorov-Smirnov ^a			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
Difference	.103	14	.200*	.961	14	.736

Note. *=This is a lower bound of the true significance; a=Lilliefors Significance Correction

The treatment group pretest (M=68.214) average and posttest (M=67.79) average has a difference of two (-0.4286) correct words read per minute (Table 13). The treatment group as a whole elicited a decrease in reading rate of -0.4286 (95% CI, -6.2542 to 5.3971) correct words per minute between May and August.

Table 13

Paired Samples Statistics (Treatment Group)

Paired Samples Statistics					
		Mean	N	Std. Deviation	Std. Error Mean
Pair 1	Posttest	67.79	14	23.949	6.401
	Pretest	68.214	14	28.7193	7.6755

Table 14 shows the results of the paired samples t test (all treatment groups) in order to determine significant difference ($P < 0.05$) in the pretest/posttest scores. The difference in pretest and posttest scores was not statistically significant at the 95% confidence interval as indicated by the paired samples t test ($p=0.876$).

Table 14

Paired Samples Test (Treatment Group)

Paired Samples Test									
		Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference		t	df	Sig. (2-tailed)
					Lower	Upper			
Pair 1	Posttest/Pretest	-.4286	10.0897	2.6966	-6.2542	5.3971	-.159	13	.876

Because this outcome (only 14% confidence interval) was not in alignment with expected outcomes, the researcher decided to analyze subgroups (red zone and green zone subgroups) within the treatment group to gain a better understanding of the results. The difference in the red zone treatment group's pretest ($M=45.375$) and posttest ($M=49.375$) averages an increase of four (4) correct words read per minute (Table 15).

The red zone treatment group elicited an increased reading rate of four (95% CI, -3.26081 to 11.26081) correct words per minute between May and August. Although the significance of these results is higher than the treatment group as a whole (77% confidence interval), Table 16 indicates that the difference in the pretest and posttest scores was not statistically significant at the 95% confidence interval as indicated by the paired samples t test ($p=0.234$).

Table 15

Paired Samples Statistics (Red Treatment Group)

Paired Samples Statistics					
		Mean	N	Std. Deviation	Std. Error Mean
Pair 1	Posttest	49.3750	8	11.27497	3.98630
	Pretest	45.3750	8	11.42600	4.03970

Table 16

Paired Samples Test (Red Treatment Group)

Paired Samples Test									
		Paired Differences					t	df	Sig. (2-tailed)
		Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference				
					Lower	Upper			
Pair 1	Posttest/Pretest	4.00000	8.68496	3.07060	-3.26081	11.26081	1.303	7	.234

The difference in the green zone treatment group's pretest ($M=98.6667$) and

posttest (M=92.3333) averages a decrease of 6.3333 correct words read per minute (Table 17). The green zone treatment group elicited a decrease in reading rate of 6.3333 (95% CI, 16.05785 to 3.39119) correct words per minute between May and August.

Table 17

Paired Samples Statistics (Green Treatment Group)

Paired Samples Statistics					
		Mean	N	Std. Deviation	Std. Error Mean
Pair 1	posttest	92.3333	6	6.91857	2.82450
	pretest	98.6667	6	3.77712	1.54200

Although the significance of this subgroup was higher than the treatment group as a whole (85% confidence interval), the difference in the pretest and posttest scores was not statistically significant at the 95% confidence level as indicated by the paired samples t test ($p=0.155$; Table 18).

Table 18

Paired Samples Test (Green Treatment Group)

Paired Samples Test									
		Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference		t	df	Sig. (2-tailed)
					Lower	Upper			
Pair 1	Posttest/pretest	-6.33333	9.26643	3.78300	-16.05785	3.39119	-1.674	5	.155

In order to determine statistical significance in the control group's pretest/posttest

scores, the Shapiro-Wilk test was conducted to determine if the scores were normally distributed and if there were any outliers for which to account. The control group's pretest and posttest scores were normally distributed (Table 19), as assessed by the Shapiro-Wilk test ($p=0.491$). Figure 15 displays a boxplot that identifies outliers. No outliers were detected so the researcher continued with the paired samples t test.

Table 19

Shapiro-Wilk Tests of Normality (Control Group)

Tests of Normality						
Kolmogorov-Smirnov ^a			Shapiro-Wilk			
	Statistic	Df	Sig.	Statistic	df	Sig.
difference	.230	4	.	.912	4	.491

Note. A=Lilliefors Significance Correction.

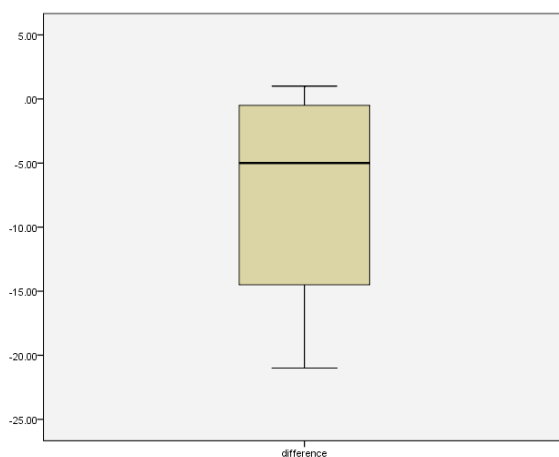


Figure 15. Pretest/Posttest Normal Q-Q Plot of Differences (Control Group).

The difference in the control group's pretest ($M=69.7500$) and posttest ($M=62.2500$) averages a decrease of 7.5 correct words read per minute (Table 20). The

control group elicited a decrease in reading rate of 7.5 (95% CI, 16.05785 to 3.39119) correct words per minute between May and August (Table 21). However, the difference in the pretest and posttest scores was not statistically significant at the 95% confidence level as indicated by the paired samples t test ($p=0.221$).

Table 20

Paired Samples Statistics (Control Group)

Paired Samples Statistics					
		Mean	N	Std. Deviation	Std. Error Mean
Pair 1	posttest	62.2500	4	23.83799	11.91900
	pretest	69.7500	4	14.24488	7.12244

Table 21

Paired Samples Test (Control Group)

Paired Samples Test									
		Paired Differences					t	df	Sig. (2-tailed)
		Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference				
					Lower	Upper			
Pair 1	Posttest/pretest	-7.50000	9.74679	4.87340	-23.00932	8.00932	-1.539	3	.221

Based on the differences in statistical significance based on Hasbrouck's (2012) ORF zones, the researcher applied a one-way ANOVA to determine the significance in the pretest/posttest scores when accounting for the students' initial ORFs (reading rate) in May (Table 22). This test indicated a p value of 0.53, signifying that there was not a statistically significant difference (95% confidence interval) in the pretest/posttest scores

between the two groups, but there was a significant difference at the 94% confidence interval. The stem-and-leaf plot (Figure 16) displays the differences in pretest/posttest scores by zones. The green zone participants' average summer reading loss was -6.333 correct words per minute. The red zone participants' average gained an average of four correct words per minute. The stem-and-leaf plot displays a 10.333 difference in the two groups' pretest/posttest averages.

Table 22

One-way ANOVA (by Hasbrouck Zone)

ANOVA					
Difference					
	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	366.095	1	366.095	4.589	.053
Within Groups	957.333	12	79.778		
Total	1323.429	13			

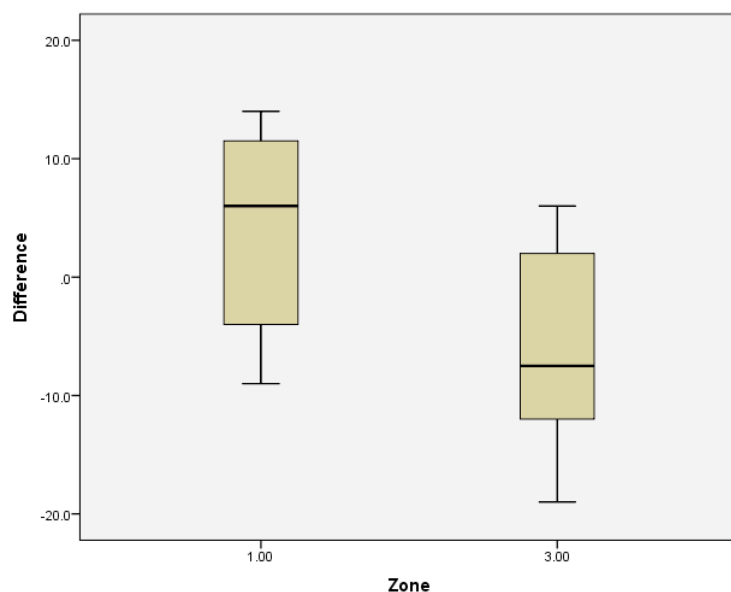


Figure 16. Stem-and-Leaf Plots.

The participants' reading logs were analyzed to determine the amount of weekly reading (see Figure 12) and the amount of total summer reading. Each book or chapter counted as one book on the reading log. Books that were repeatedly read throughout the summer were also counted as one book. A code used to describe weekly reading volume (books or chapters recorded on reading log per week) is as follows:

- 0.00-0.99 = "Low"
- 1.00-2.99 = "Moderately Low"
- 3.00-4.99 = "Moderate"
- 5.00-6.99 = "Moderately High"
- 7.00 or more = "High"

A one-way ANOVA was applied to the pretest/posttest scores (differences) and the weekly reading volume code ($p=0.496$). The researcher applied a one-way ANOVA to analyze the differences in pretest/posttest scores and the total number of books read this summer ($p=0.664$). Tables 23 and 24 display the results of those analyses. The tests indicated that the difference is not statistically significant at the 95% confidence level for either the reading volume or the total number of books/chapters read this summer.

Table 23

One-way ANOVA (Weekly Book Volume Code)

ANOVA					
Difference	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	240.675	2	120.338	.810	.496
Within Groups	743.200	5	148.640		
Total	983.875	7			

Table 24

One-way ANOVA (Total Books Read)

ANOVA					
Difference	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	710.889	6	118.481	.759	.664
Within Groups	312.000	2	156.000		
Total	1022.889	8			

The researcher collected quantitative and qualitative data from the parent questionnaires, contact logs, and reading logs. The researcher calculated cumulative percentages from the multiple-choice questions and transcribed the written responses on the questionnaire and contact log. Based on the questionnaire, 100% of the treatment group participants indicated their child “read more this summer” and 60% reported that the greatest impact on their child’s reading ability was “reading more books.” Based on this data, students read less than 2 days per week last summer. Data from the

questionnaire indicate that 50% “read 4-5 days per week,” 40% “read 2-3 days per week,” and 10% “read 6-7 days per week.” Ninety percent reported that their summer reading routine has changed in comparison to last summer.

The researcher also collected qualitative data from the questionnaire, contact logs, and reading logs. The researcher used qualitative data from the reading logs to further explain data collected from the questionnaires and contact log regarding reading volume. The reading logs indicated book titles and frequency of books read. The researcher used this data to determine if the reading log was an accurate record of reading volume. Data collected from the open-ended questionnaire and contact log were coded to determine common themes. The researcher used the following qualitative strength codes to analyze the themes:

- Weak theme (0-33% of responses)
- Moderate theme (34-66% of responses)
- Strong theme (67-100% of responses)

Based on the written responses in the questionnaires and contact logs, the research identified themes related to the impact that parent development and home-based summer reading had on “reading volume.” Tables 25, 26, 27, and 28 display the qualitative data collected from the questionnaires and contact logs. Student names listed in the tables are pseudonyms. Additional discussion of the qualitative data collected from reading logs (book choice, accuracy, and responsibility) is presented in Chapter 5. The researcher identified three themes:

- Home Literacy Routines
- Contact with the Teacher (related to motivation)

- Access to Books

The researcher found substantial responses (Table 25) related to parents' perceptions regarding the positive impact increased reading volume had on their child's reading ability in August in comparison to their reading ability in May. Ninety percent of the participants indicated that their reading home literacy routine changed this summer to include more reading and 40% indicated that part of the change was increased parent and family involvement with reading routines. Sixty percent of the responses indicated that "reading more books" had the greatest impact on their child's reading ability over summer vacation; 100% of the responses indicated that students "read more this summer" in comparison to previous summers. Therefore, the researcher concluded that "increased reading volume" is a strong theme found in the qualitative data.

Table 25

“Home Literacy Routines” Related Responses from Questionnaires and Contact Logs

Data Collection Tool	Responses
Questionnaires	<p>“We agreed on a time every day to read as a family” (WB1)</p> <p>“We went to the library more which made everyone read more” (CR3)</p> <p>“He reads to us for about 30 minutes” (WB9)</p> <p>“We read more together than by herself” (WB10)</p>
Contact Logs	<p>“Cain” prefers to read at night before bed (J1)</p> <p>“Took a week off but have been reading every other night” (WB1)</p> <p>“daily, takes books to daycare” (WB1)</p> <p>“Did not read this week, he did well in the beginning” (WB3)</p> <p>“Once per day, student was a little off track last week, student taking weekends off (WB2)”</p> <p>“Every night but 2 all summer” (WB10)</p> <p>“Pretty good, 1-2 week span with no reading because out of town on vacation and student got sick, Back on track now” (WB10)</p> <p>“Every day and at Y camp” (WB10)</p> <p>“Every week night” (WB12)</p>

Based on data collected from the questionnaires and contact logs (Tables 26 and 27), the researcher found a moderate theme related to the impact that having contact with the teacher had on student motivation to read more this summer. Sixty percent of the participants indicated on the questionnaire that “having contact with the teacher” had the greatest impact on their child’s reading ability this summer and 40% indicated that

keeping in touch with the teacher increased their child's motivation to read. Related to keeping in touch with the teacher, 50% indicated that receiving encouragement this summer increase their child's motivation to read. Seventy percent reported that their child's motivation to read was a four or five on the Likert-scale (four-five is a positive response) and 90% reported that the reading log motivated their child to read.

Table 26

“Contact with the Teacher” Related Responses from Questionnaires and Contact Logs

Data Collection Tool	Responses
Questionnaires	<p>“returning to school for AR tests each week” (CR2)</p> <p>“We went to the library more which made everyone read more” (CR3)</p> <p>“Going to see Mrs. ‘Baker’ each week for AR tests and prizes seemed to help increase her desire to read- to please her teacher” (CR2)</p> <p>“Everyone encouraging her more” (J3)</p> <p>“The rewards and encouragement” (CR3)</p> <p>“encouragement” (WB1)</p>
Contact Logs	<p>“When does she send in log? “She’s done so much better this summer.”</p> <p>“Parent suggested doing this program again next year. It kept them accountable. Calling helped.” (WB10)</p>

Table 27

"Motivation" Related Responses from Questionnaire and Contact Logs

Data Collection Tool	Responses
Questionnaires	<p>"He liked the book he was reading" (WB9)</p> <p>"Reading log was the motivation for my child. He seems a little more confident. Some days that's all he wanted to do was read." (WB12)</p> <p>"not as hard to get him to read" (WB12)</p> <p>"Having a goal set" (CR1)</p> <p>"Sylas went from not wanting to read to asking when was the next time to read." (WB3)</p> <p>"him logging and knowing it was his responsibility to log the books he read was the positive and drive to read" (WB12)</p> <p>"Going to see Mrs. Bailey each week for AR tests and prizes seemed to help increase her desire to read- to please her teacher" (CR2)</p> <p>"The rewards and encouragement" (CR3)</p> <p>"encouragement" (WB1)</p> <p>"He liked the books he was reading" (WB9)</p> <p>"The greatest impact was having to keep up with the log and us as parents making sure she was reading." (WB10)</p>
Contact Logs	<p>"Child gets bored, some reading is tough." (WB3)</p> <p>"Grandmother expressed difficulty in getting Alexis to read sometimes" (J2)</p> <p>"She is doing it all by herself." (WB10)</p> <p>"Jessica has not been reading much but was excited to pick out books of her choice" (J3)</p> <p>"varies- iPad books, books about trees" (WB12)</p> <p>"She loves books about animals because they found kittens around their house this week." (J3)</p> <p>"Fiction, 1 chapter at a time" (WB12)</p> <p>"Student is learning so many words! Student is playing school at home." (WB1)</p> <p>"Once per day, student was a little off track last week, student taking weekends off (WB2)"</p> <p>"Did not read this week, he did well in the beginning" (WB3)</p>

A strong theme arose from the data related to increased access to books. Eighty percent of parent responses indicated that their child read the books that they received at the parent seminar and 90% reported that their child read those books more than once. On the contrary, 100% of responses indicated that their child preferred to read different books instead of the same ones repeatedly this summer.

Table 28

“Access to Books” Related Responses from Questionnaires and Contact Logs

Data Collection Tools	Responses
Questionnaires	<p>“We went to the library more which made everyone read more” (CR3)</p> <p>“more available books” (J3)</p> <p>One parent reported that the child enjoyed both reading different books and the same book repeatedly.</p> <p>30% reported that the greatest impact on their child’s reading ability was “having more books and materials at home”</p>
Contact Logs	<p>J1, J2, and J3 checked out five books each time they visited the school library this summer</p> <p>CR1, CR2, and CR3 took a total of 23 AR tests with an average comprehension score of 97.4.</p> <p>CR1 read 6 books and took 6 AR tests with an average score of 100%.</p> <p>CR2 read 8 books and took 6 AR tests with an average score of 100%.</p> <p>CR3 read 9 books and took 6 AR tests with an average score of 92.2%.</p> <p>“varies- iPad books, books about trees” (WB12)</p> <p>“She loves books about animals because they found kittens around their house this week.” (J3)</p>

Based on the results of the paired samples t tests conducted using scores from the control, treatment, red treatment subgroup, and green treatment subgroup, the differences in pretest and posttest scores were not statistically significant for any group or subgroup.

Although confidence intervals increased based on subgroups, the differences were not statistically significant at the 95% confidence interval. The results of the one-way ANOVA failed to reveal a statistically significant difference between the pretest/posttest scores and the differing amounts of weekly reading volume ($p=0.496$). The results of the one-way ANOVA to analyze the differences in pretest/posttest scores and the total number of books read this summer failed to reveal a statistically significant difference ($p=0.664$). Based on the qualitative and quantitative data, the researcher neither accepts nor rejects the null at this time. Further discussion of this interpretation is presented in Chapter 5.

Research Question 3. What is the impact of reading strategies (echo, NIM, shared, or repeated readings) on summer reading loss as measured by the difference in May and August ORF scores?

Null Hypothesis 3. The use of reading strategies (echo, NIM, shared, or repeated readings) has no impact on rising third graders' summer reading losses as measured by the difference in May and August ORF scores.

Findings for Research Question 3. The researcher collected data from the pretest/posttest ORF scores and reading logs to determine the impact the reading strategies had on summer reading loss (difference in pretest/posttest scores). Parents learned three reading strategies at the parent seminar. The weekly average was converted into a code in order to analyze the impact of strategy usage. The code for weekly reading strategies was as follows: "Low," 0-33% of books were read using one of the three reading strategies; "Moderate," 34-66% of books were read using one of the three reading strategies; "High," 67-100% of books were read using one of the three reading strategies.

Repeated readings of the same book were also encouraged. Daily repeated

readings were recorded on the reading log as well. The participant recorded whether they read the book more than once that day or if they had read the book previously but on a different day. Table 29 displays the average number of repeated reading strategies and the total number of daily repeated readings organized by participant.

Table 29

Reading Strategies (per week) and Repeated Readings (total)

Student Code	Hasbrouck's Zones	Difference	Average Weekly Strategies Used	Strategy Usage Code	Total Repeated Readings
WB3	Green	-10	2.5	2	0
WB10	Green	-19	0.91	1	0
CR3	Green	2	No Log	No Log	No Log
CR4	Green	-12	No Log	No Log	No Log
CR1	Green	6	0	1	2
CR2	Green	-5	0	1	7
WB9	Red	-5	No Log	No Log	No Log
WB1	Red	-9	0.27	1	0
WB12	Red	11	No Log	No Log	No Log
WB2	Red	4	2.27	2	10
J1*	Red	12	2.18	2	3
J2	Red	8	1.73	3	2
J3*	Red	14	0.36	2	3
CR5	Red	-3	No Log	No Log	No Log

Note. * indicates that the student received 1 hour of tutoring per week during the summer in addition to the home-based summer reading program.

Figure 17 displays the results from an analysis that compared the number of daily repeated readings recorded in the reading log (total) and the difference in pretest/posttest scores. Five of the six participants (83.3%) who recorded daily repeated readings increased their reading rate over the summer. One of the six (16.7%) participants decreased their reading rate over the summer.

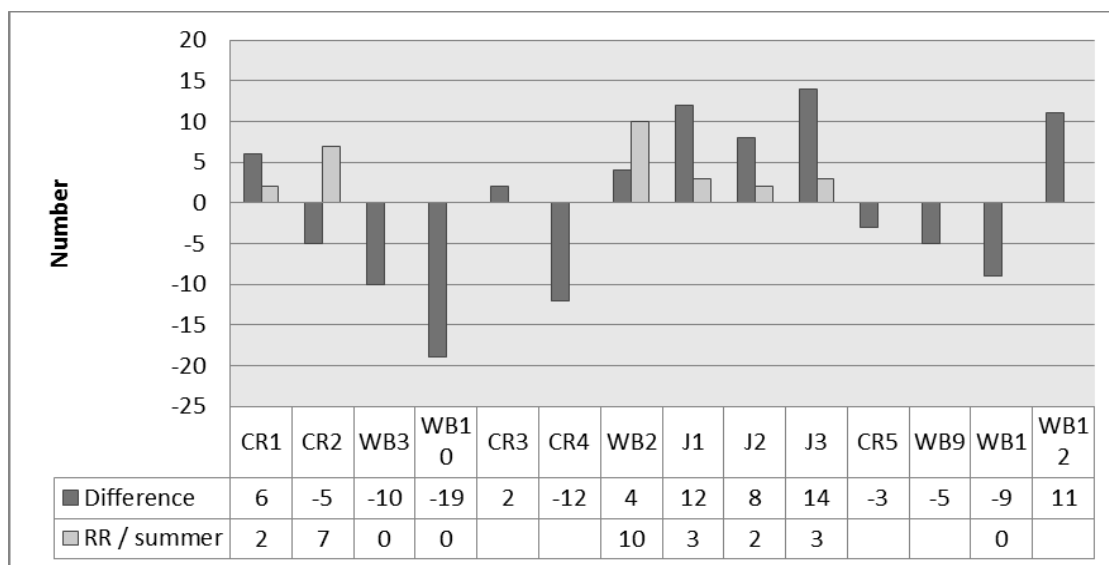


Figure 17. Summer Reading Loss and Daily Repeated Readings Recorded.

A one-way ANOVA (Table 30) was applied to the pretest/posttest scores (differences) and the strategy usage code ($p=0.687$). The test indicated that the difference was not statistically significant at the 95% confidence level regarding the average weekly strategy usage. Additionally, based on the further analysis of Figure 17 related to the use of repeated readings (daily) recorded per summer, the researcher applied a one-way ANOVA (Table 31) to analyze the differences in pretest/posttest scores and the total number of books read repeatedly in the same day ($p=0.011$). The results of this test indicate a statistically significant difference among students who repeatedly read books in the same day in comparison to students who did not record daily repeated readings on their reading logs. The test is significant at the 98% confidence interval.

Table 30

One-way ANOVA (Strategy Usage Code)

ANOVA					
Difference	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	27.000	1	27.000	.218	.687
Within Groups	248.000	2	124.000		
Total	275.000	3			

Table 31

One-way ANOVA (Daily Repeated Readings Recorded)

ANOVA					
Difference	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	958.222	4	239.556	14.818	.011
Within Groups	64.667	4	16.167		
Total	1022.889	8			

In addition to the quantitative data above, the researcher collected quantitative and qualitative data from the parent questionnaires, contact logs, and reading logs. The reading logs were used to further explain and clarify data found on the questionnaires and contact logs. The researcher calculated cumulative percentages to analyze the questionnaire responses related to reading strategies. Sixty percent of the questionnaire responses indicated that students preferred to read with someone. The researcher used the same qualitative strength codes to analyze the themes for Research Question 3:

- Weak theme (0-33% of responses)

- Moderate theme (34-66% of responses)
- Strong theme (67-100% of responses)

The researcher transcribed the written responses and coded them for common themes. Tables 32 and 33 display the qualitative data collected from the questionnaires and contact logs. Student names listed in the tables are pseudonyms. Regarding “reading strategy usage,” the researcher identified two themes:

- Parental Support
- Motivation

The data collected from the open-ended questionnaire indicate moderate themes relating increased motivation and increased parental support to the use of repeated reading strategies based on responses reported on questionnaires and parent contact logs. A moderate theme (36%) was found that suggests that students were motivated by the use of reading strategies. Responses related to the reading strategies were related to motivation.

Table 32

“Motivation” Related Responses from the Questionnaires and Contact Logs

Data Collection Tools	Responses
Questionnaires	“(Strategies) made it more fun for her” (WB10) “(Strategies) kept him more interested” (WB9) “(Strategies) she would sit still more and would read more” (J2) “3 way strategies” (J2) “(Strategies) Encouraged her to read on her own and that I (her mother) was always here to help” (WB1)

A moderate theme was found that suggests that the reading strategies had an impact on parental support through encouragement and reading-related aid. Of the 40% who preferred to read alone, three of the four were green zone participants and their reading rate increased over the summer. The other participant who indicated the desire to read alone was a red zone participant and their reading rate decreased over the summer. One student did not indicate that he preferred reading alone on the questionnaire, but the teacher noted on the contact log that his mother said that he preferred to read alone but for her to listen. He was a red zone participant.

Table 33

"Parental Support" Related Responses from the Questionnaires and Contact Logs

Data Collection Tools	Responses
Questionnaires	<p>“(Strategies) Encouraged her to read on her own and that I (her mother) was always here to help” (WB1)</p> <p>“Echoing- seemed to help her read faster” (CR2)</p> <p>“Not only was my child reading, but as a parent I was more involved” (CR1)</p> <p>“Helped with being able to pronounce words better” (J3)</p>
Contact Logs	<p>“Her grandmother is reading with her some. She likes the you read-I read strategy.” (J2)</p> <p>“Jenny doesn't want mom to read with her so she listens to Jenny read a few times a week” (J3)</p> <p>“Parent and Allie read a page to a page often times” (J2)</p> <p>“Yes, shared reading, echo reading. Comprehension is tough.” (WB3)</p> <p>“Mom is doing strategies, shared reading” (WB12)</p>

A one-way ANOVA failed to reveal a statistically significant difference between the pretest/posttest scores and the use of repeated reading strategies. The difference was not significant, ($p=0.687$) at the 95% confidence interval. Based on the qualitative and quantitative data, the researcher neither accepts nor rejects the null as it relates to the three reading strategies taught at the parent seminar. Further discussion of this interpretation is presented in Chapter 5.

After further analysis, a one-way ANOVA revealed a statistically significant difference in the pretest/posttest scores of students who recorded daily repeated readings

this summer ($p=0.011$). This difference is significant at the 98% confidence interval.

Based on the qualitative and quantitative data, the researcher rejects the null as it relates to repeated readings. Further discussion of this interpretation is presented in Chapter 5.

Research Question 4. What is the impact of parent development on summer reading loss as measured by the difference in May and August ORF scores?

Null Hypothesis Four. Parent development and home-based, summer reading have no impact on rising third graders' summer reading losses as measured by the difference in May and August ORF scores.

Findings for Research Question 4. For this question, the researcher considered pretest/posttest data from the control group in order to determine the impact of parent development on summer reading loss (treatment). The first analysis completed to determine the impact of parent development on summer reading loss included a statistical analysis of the difference in pretest/posttest scores for the treatment group in comparison to the control group. One limitation noted in Chapter 5 is that the control group sample size was small ($N=4$) in comparison to the treatment group ($N=14$). This limitation is addressed in Chapter 5 with recommendations for future research. Table 34 displays the results of the one-way ANOVA conducted to determine if the differences in the pretests/posttests were statistically significant. Based on the results ($p=0.173$) the one-way ANOVA failed to reveal a statistically significant difference in pretest/posttest scores at the 95% confidence interval.

Table 34

One-way ANOVA (Treatment and Control Differences)

ANOVA					
Difference	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	225.752	1	225.752	2.074	.173
Within Groups	1415.182	13	108.860		
Total	1640.933	14			

The next analysis completed to determine the impact of parent development on summer reading loss included the parent self-assessment from the parent development seminar. The parent self-assessment codes (parents' abilities to demonstrate mastery of the three strategies) were based on a five-point Likert scale and were assigned as follows:

- 1.00-2.99 "Negative"
- 3.00 "Neutral"
- 3.01-5.00 "Positive"

A one-way ANOVA (Table 35) was applied to the pretest/posttest scores (differences) and the parent self-assessment codes (see above) to determine the impact of the parent's perceived mastery of the strategies on the student's pretest/posttest difference. The test indicated that the difference is not statistically significant ($p=0.553$) at the 95% confidence level regarding the parent's self-assessment score.

Table 35

One-way ANOVA (Parent Self-Assessment Code)

ANOVA					
Difference	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	42.250	1	42.250	.376	.553
Within Groups	1124.000	10	112.400		
Total	1166.250	11			

Additionally, the researcher applied a one-way ANOVA (Table 36) to analyze the differences in pretest/posttest scores and the total number of parent contacts made during the summer. The results of this test failed to reveal a statistically significant difference among students pretest/posttest scores based on the number of parent contacts they received ($p=0.210$). The test was not significant at the 95% confidence interval.

Table 36

One-way ANOVA (Total Parent Contacts)

ANOVA					
Difference	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	708.595	5	141.719	1.844	.210
Within Groups	614.833	8	76.854		
Total	1323.429	13			

There were differences in the types of parent contact provided at each school. This decision was made through mutual adaption between the Title I teacher and the researcher. Two of the three participating schools, Julius Elementary School and

Compass Rose Elementary School, opened their school libraries once a week during the summer for book checkout and optional Accelerated Reader tests. The Title I teachers at those schools had face-to-face communication with the parents seven to eight times during the summer. The Title I teacher at Whispering Brook Elementary made contact with parents via phone one to four times during the summer. Data for participating students who were not in communication with the teacher this summer were removed from the following chart that displays disaggregated data of the pretest/posttest differences based on the type of parent communication they received during the summer. The control group did not attend the parent seminar and did not receive phone calls or face-to-face contact with the Title I teachers.

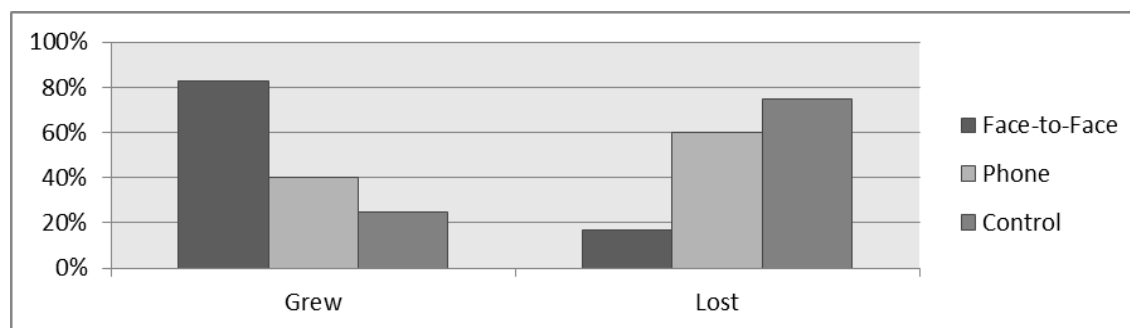


Figure 18. Differences in Pretest/Posttest and Types of Parent Communication.

Because the one-way ANOVA indicated that there was no statistically significant difference in pretest/posttest scores based on the number of parent contacts, the researcher decided to analyze the data based on the type of contact students received during the summer: face-to-face or telephone. Figure 18 displays the differences in pretest/posttest scores based on the type of parent contact they received. Table 37 indicates the results of the one-way ANOVA. The test indicated that there was no statistically significant difference at the 95% confidence interval, however, there was

statistically significant difference at the 91% confidence interval ($p=0.094$).

Table 37

One-way ANOVA (Type of Parent Contact)

ANOVA					
Difference					
	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	316.148	1	316.148	3.495	.094
Within Groups	814.033	9	90.448		
Total	1130.182	10			

Though the control group was a small sample size, which was included in Chapters 3 and 5 as a limitation, the researcher analyzed the difference in pretest/posttest scores (Figure 19). Based on this data and the data found in Figure 18 above, students who received face-to-face parent contact grew more over the summer than students who received phone contact. Students who received phone contact grew more than students who received no contact in the control group. Figure 19 displays data that reflect that the treatment group (-0.4286 correct words per minute) had less summer reading loss than the control group (-7.5 correct words per minute).

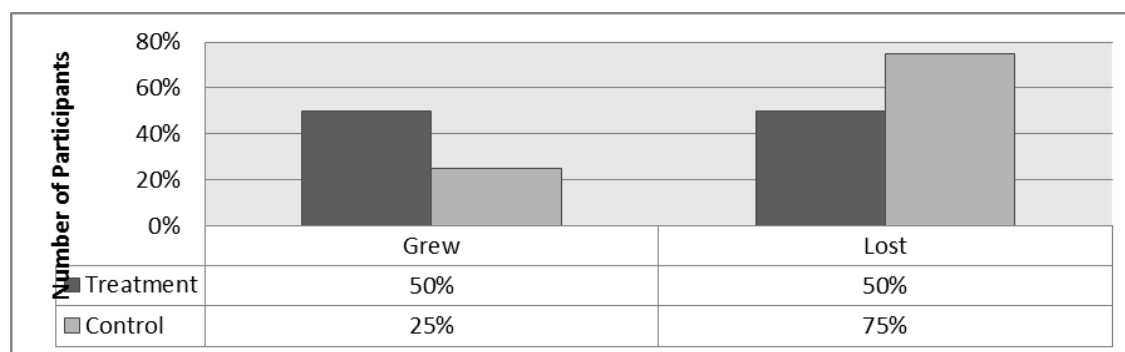


Figure 19. Differences in Pretest/Posttest Scores (Treatment and Control Groups).

In addition to the quantitative data, the researcher collected quantitative and qualitative data from the parent questionnaires, contact logs, and reading logs. Data collected from the reading logs were used to further explain and clarify data collected from the questionnaires and contact logs. Based on the multiple-choice questionnaire items, 100% “read more this summer.” As indicated in the results for Research Question 2, 90% indicated that their summer reading routines have changed in comparison to last summer; 50% “read 4-5 days per week,” 40% “read 2-3 days per week,” and 10% “read 6-7 days per week.” Based on the questionnaire data, this reading frequency is an increase from last summer. Related to the components of the parent development seminar and home-based summer reading, 60% reported that the greatest impact on their child’s reading ability was “reading more books,” “keeping in touch with the teacher,” and “using the reading strategies.” Fifty percent reported that the greatest impact on their child’s reading ability was “keeping a reading log.” Seventy percent reported that their child’s motivation was high (4-5 on the Likert-Scale). As for overall reading ability in comparison to last spring, 78% of parents perceived that their child reads “better than last spring” and 22% perceived that their child reads “about the same as last spring.” One hundred percent said that the parent seminar and home-based summer reading was an effective way to stop summer reading loss.

Additionally, the researcher used the same qualitative strength codes that were used to analyze the themes for Research Questions 2 and 3:

- Weak theme (0-33% of responses)
- Moderate theme (34-66% of responses)
- Strong theme (67-100% of responses)

The researcher transcribed the open-ended written responses from questionnaires and contact logs. Table 38 displays the qualitative data collected from those instruments. Student names listed in the table are pseudonyms. Regarding “parent development,” the researcher identified one theme: home literacy routines.

A strong theme was identified regarding the impact of the parent development seminar and home-based summer reading program on home literacy routines. Sixty percent of the questionnaire respondents noted that they read more as a family as a result of the program. Ninety percent indicated a change in home literacy routines and 80% indicated positive changes in their previous summer reading routine. Ninety percent noted that the reading log motivated their child to read.

Table 38

“Home Literacy Routines” Related Responses from Questionnaires and Contact Logs

Data Collection Tool	Responses
Questionnaires	<p>“We agreed on a time every day to read as a family” (WB1)</p> <p>“We went to the library more which made everyone read more” (CR3)</p> <p>“He reads to us for about 30 minutes” (WB9)</p> <p>“We read more together than by herself” (WB10)</p> <p>“We read more as a family.” (WB10)</p> <p>“Encouragement” (WB1)</p> <p>“The greatest impact was having to keep up with the log and us as parents making sure she was reading.” (WB10)</p> <p>“Reading log was the motivation for my child. He seems a little more confident. Some days that’s all he wanted to do was read.” (WB12)</p> <p>“I loved the program. The whole family read more this summer.” (CR3)</p> <p>“It motivated all of us.” (WB9)</p> <p>“It keeps the parent and student accountable.” (WB3)</p> <p>“It made everyone accountable!” (WB10)</p> <p>“It helped show that it is important to learn to read.” (J3)</p> <p>“My child was excited, to have the responsibility of logging the books he read over the summer and knowing his teacher was calling to see how he was doing with his reading over the summer.” (WB12)</p>
Contact Logs	<p>“Cain” prefers to read at night before bed (J1)</p> <p>“Took a week off but have been reading every other night” (WB1)</p> <p>“daily, takes books to daycare” (WB1)</p> <p>“Did not read this week, he did well in the beginning” (WB3)</p> <p>“Once per day, student was a little off track last week, student taking weekends off (WB2)”</p> <p>“Every night but 2 all summer” (WB10)</p> <p>“Pretty good, 1-2 week span with no reading because out of town on vacation and student got sick, Back on track now” (WB10)</p> <p>“Every day and at Y camp” (WB10)</p> <p>“Student is learning so many words! Student is playing school at home.” (WB1)</p> <p>“When does she send in log? ‘She’s done so much better this summer.’ Parent suggested doing this program again next year. It kept them accountable. Calling helped.” (WB10)</p>

This theme is also evident through the word frequency analysis of the written responses in the questionnaire (Figure 20) by words such as “reading, everyone, knowing, motivated, responsibility, parent, strategies, help, and encouragement.” These

collected from the reading logs.

Additionally, the researcher used quantitative data from the questionnaire to further analyze the impact of parent development to account for the small control group. Fifty percent of the treatment group responses on the questionnaire indicated that students read 4-5 days per week, 40% read 2-3 days per week, and 100% said that this was more than their child read last summer. Seventy percent of the students were highly motivated (indicated a four or five on the Likert-scale) and 30% indicated a neutral motivation response (three on the Likert-scale). When asked about the components of the reading program that were most effective, parents indicated that reading more books, using the reading strategies, and communication with the teacher had the most impact on their child's reading ability after summer vacation (Figure 21).

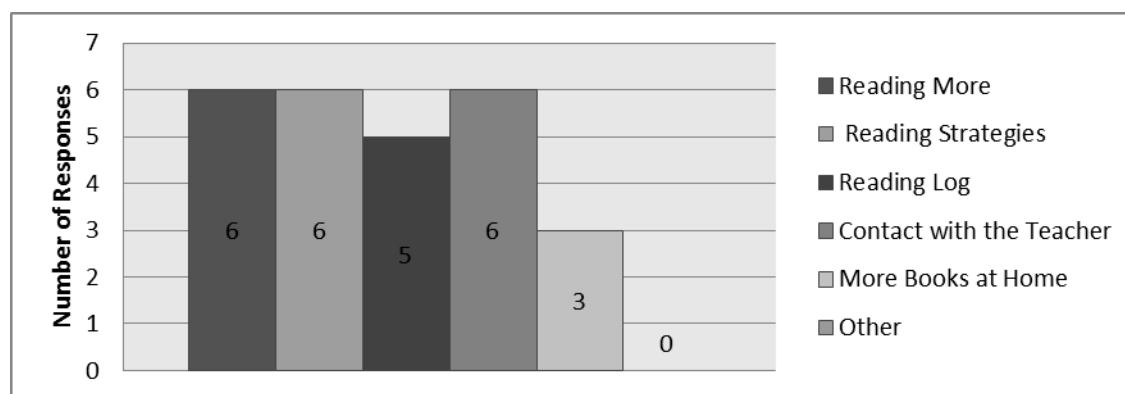


Figure 21. "Greatest Impact" Responses from the Questionnaires.

In comparison, the control group responses indicated that of the three responses, one read more, one read less, and one read about the same as last summer. The control group indicated that two of the three students were neutrally motivated and one student was not motivated at all to read (one on the Likert-scale). Two parents in the control group indicated a positive change in reading habits this summer and one indicated a

negative change due to a new baby's arrival.

The pretest/posttest data indicate that the mean difference in May and August scores for the treatment group was -0.4286 correct words per minute. In comparison, the mean difference in the May and August pretest/posttest scores for the control group was -7.5 correct words per minute. Based on Hasbrouck's (2012) zones, the green treatment group had an average decrease of 6.3333 correct words per minute. The red treatment group had an average increase of four correct words per minute.

Qualitative data from the contact logs and questionnaires indicate that there was a strong theme related to increased home literacy routines as a result of the parent development seminar and home-based summer reading program. This is based on the number of respondents who indicated a positive change in their summer reading routines (80%) and that 100% of the respondents indicated that the parent seminar and home-based summer reading program was an effective way to target summer reading loss. Other moderate themes, such as increased parent support and motivation to read, had an impact on the strength of the "increased home literacy routines" theme.

The one-way ANOVA failed to reveal a statistically significant difference when comparing pretest/posttest scores and participation in the parent development seminar ($p=0.173$), the number of parent contacts ($p=0.210$), or type of parent contacts ($p=0.094$) at the 95% confidence level. However, the type of contact was significant at the 91% confidence level indicating that face-to-face had a positive impact on summer reading loss in comparison to phone contact only ($p=0.094$). Based on the qualitative and quantitative data, the researcher neither accepts nor rejects the null. Further discussion of this interpretation is presented in Chapter 5.

Summary

Data were collected to answer the four research questions. Fifty percent of the treatment group increased their reading rate and 50% demonstrated a decreased reading rate after summer vacation. Seventy-five percent of the control group demonstrated a decrease in reading rate. The red zone participants had a higher percentage of growth in comparison to the green zone participants. Students who used repeated reading strategies showed more growth than students who did not record daily repeated readings.

Considering all of this, in addition to the results of the paired samples t tests and one-way ANOVA, the next chapter includes data interpretations of the research based on the findings presented in Chapter 4 and current literature noted in Chapter 2. In addition, Chapter 5 also includes instructional recommendations based on these interpretations. The researcher further discusses the significance and generalizability of the findings in Chapter 5 and proposes suggestions for future research.

Chapter 5: Conclusion

Introduction

Research indicates that students may lose up to 2 years of reading development by the time they reach sixth grade due to summer reading loss (Kim & Guryan, 2010; McGill-Franzen & Allington, 2001). Increased access to books, home-based instruction, and parent involvement are among the strategies educators have used to target this problem (Deck, 2011; Hindin & Paratore, 2007; Kim & Guryan, 2010; Neidermeyer, 1970; Rasinski & Stevenson, 2005; LeFevre & Senechal, 2002; Allington & McGill-Franzen, 2008; Morrow et al., 2006; Triplett, 2009).

Research Questions

Based on the above research, this study asked the following questions:

Research Question 1. What is the impact of the parent development seminar on parents' abilities to demonstrate mastery of reading strategies?

Null Hypothesis 1. Parent development has no impact on parents' abilities to demonstrate mastery of reading strategies.

Research Question 2. What is the impact of summer reading volume (number of books initially and repeatedly read) on summer reading loss as measured by the difference in May and August ORF scores?

Null Hypothesis 2. Summer reading volume (number of books initially and repeatedly read) has no impact on rising third graders' summer reading losses as measured by the difference in May and August ORF scores.

Research Question 3. What is the impact of reading strategies (echo, NIM, shared, or repeated readings) on summer reading loss as measured by the difference in May and August ORF scores?

Null Hypothesis 3. The use of reading strategies (echo, NIM, shared, or repeated readings) has no impact on rising third graders' summer reading losses as measured by the difference in May and August ORF scores.

Research Question 4. What is the impact of parent development on summer reading loss as measured by the difference in May and August ORF scores?

Null Hypothesis 4. Parent development and home-based, summer reading strategies have no impact on rising third graders' summer reading losses as measured by the difference in May and August ORF scores.

Summary of the Study

Purpose and overview. The purpose of this study was to determine the impact of parent development on summer reading loss as measured by the difference in ORF (correct words per minute) from May to August. Utilizing a Logic Model, the researcher designed a parent development seminar and home-based summer reading program and determined evaluation questions based on the model. Title I teachers in three schools implemented the seminar and maintained ongoing communication with parents during the summer. The seminar included a 1-hour training session that provided parents with information about summer reading loss, fluency strategies to try at home, books and materials for at-home reading, and ongoing communication with the teacher during the summer. Parents and students participated in fluency strategy simulations, selected and read books of choice, and committed to keeping a reading log to record their home-literacy routines during the summer.

Participants. This study was conducted in four Title I elementary schools within the same school district in western North Carolina. Each of these schools represents a specific zone of the district. There are two suburban zones, one rural zone, and one urban

zone in this district. Participants from each school included rising third-grade Title I students. Students qualify for Title I services in reading based on test scores (DIBELS Next), teacher recommendation, retention history, and prior Title I participation.

There were 18 participants in this study: 14 in the treatment group and four in the control group. The schools were given pseudonyms to protect anonymity. Compass Rose Elementary (suburban) had five treatment group participants, Julius Elementary School (rural) had three treatment group participants, and Whispering Brook (suburban) had six treatment group participants. The control group participants were all from Whispering Brook Elementary. Compassion Elementary School (urban) had no participants. The Title I teacher indicated that transportation was often an issue and an obstacle for parent involvement.

Based on Hasbrouck's (2012) ORF zones, pretest/posttest scores indicate that six students in the treatment group sample (43%) were in the green zone which means their ORF rate was 85 correct words or higher. Based on local data, these students read at a rate above the 25th percentile (77 correct words per minute) at the end of second grade. In addition, eight students in the treatment group (57%) read below the 25th percentile at the end of second grade, based on the district's locally normed data for ORF. These students were considered the red zone based on Hasbrouck's ORF zones. Of the control group, 25% (n=1) of the students read at a rate within Hasbrouck's yellow zone. This student was reading above the 25th percentile at the end of second grade. The remaining three students in the control group (75%) were all considered the red zone based on their pretest score. Two of these students read at a rate that was below the 13th percentile for the district, and one student read at a rate that was one point above the 25th percentile for the district.

Research design. This study utilized a quasi-experimental, mixed-methods design in order to investigate the impact of reading volume, fluency strategies, and parent development on summer reading loss. After designing a parent development seminar utilizing a Logic Model and determining evaluation questions based on that model, the researcher trained Title I teachers to implement the designed parent development seminar and home-based summer reading program. The researcher collected qualitative and quantitative data using pretest/posttest scores, reading logs, parent contact logs, self-assessments, and questionnaires. This mixed-methods design allowed the researcher to gain a well-rounded understanding of the impact that parent development had on students' summer reading losses.

A paired samples t test was administered in order to determine if there was a significant difference in the treatment group's pretest/posttest scores from May to August ($p=0.876$). The test failed to reveal a significant difference at the 95% confidence interval. Additionally, a one-way ANOVA also indicated that there was no statistically significant difference in pretest scores between the treatment and control groups ($p=0.173$) at the 95% confidence level. The researcher disaggregated the treatment group data based on Hasbrouck's (2012) zones: green and red. Although significance increased ($p=0.053$), the test did not reveal significance at the 95% confidence interval. The test revealed a significant difference based on Hasbrouck's zones at the 94% confidence interval.

A one-way ANOVA was administered in order to determine the impact of the independent variables (reading volume, fluency strategies, and parent development) on the students' summer reading losses as measured by the difference in ORF scores from May to August (dependent variable). The tests failed to reveal statistically significant

differences based on reading strategy usage, book volume, parent self-assessments, or involvement in the parent development seminar. The tests revealed statistically significant differences for students who recorded daily repeated readings ($p=0.011$) at the 98% confidence interval.

In addition to the quantitative data collection, the researcher used qualitative data collection methods to determine the impact of parent development on summer reading loss. The researcher collected data from parent contact logs and questionnaires and transcribed the responses. The responses were then analyzed using a word frequency analysis (Wordle) to gain an initial understanding of the text before analyzing for common themes. Themes were determined and a strength code was assigned based on the percentage of responses on which the theme occurred. Moderate themes were found regarding parental support, motivation, and ongoing communication. Strong themes were found regarding increased home literacy routines and access to books. Using these data collection procedures, the researcher was able to interpret the quantitative and qualitative data through a well-rounded lens to determine the impact of parent development on summer reading loss for these participants.

Interpretation of Findings

The red zone. Based on the data collected to answer the four research questions, the researcher was able to determine an impact of parent development on summer reading loss for struggling readers in particular. Participants who were categorized as belonging to the red zone made more growth than students who were categorized as belonging to the green zone (Hasbrouck, 2012). Students in the red zone were typically below the 25th percentile based on local data, and the majority of this population was below the 10th percentile for this district. In accordance with Rasinski and Stevenson's (2005)

findings, the researcher concludes that a program such as this one is especially beneficial to parents of struggling readers. These findings are in accordance with three of Gambrell's (2011) Seven Rules of Engagement. By implementing the reading strategies that parents and students learned during the development session, students were given many opportunities to read and feel successful through repeated readings and with support from their parents (Rules 3 and 6). By reading together, parents and children had the opportunity to interact socially around the context of the collaborative reading experience (Rule 5).

This finding is significant because students may lose up to 2 years of reading development by the time they reach sixth grade due to summer reading loss (Kim & Guryan, 2010; McGill-Franzen & Allington, 2001). This regression is in addition to any deficits they already have (Kim & White, 2011; Mraz & Rasinski, 2007). Studies have shown that students who are not reading on grade level by the time they reach third grade are four times more likely to drop out of high school (Hernandez, 2011). For the most struggling readers, such as students in the red zone, the probability increases to six times more likely to drop out before earning a high school diploma. Therefore, it is imperative to intervene for struggling students to prevent summer reading loss. This researcher suggests that based on this data, parent development and a home-based summer reading program may also be beneficial to struggling readers (red zone) who are not identified as Title I students.

Daily repeated readings. Research suggests that just giving students books is not an effective strategy for summer reading loss (Kim & White, 2011; Mraz & Rasinski, 2007). The amount of reading and the type of reading are important factors. Repeated readings are an effective strategy for improving students' ORFs (Rasinski, 2000; Therrien

& Kubina, 2006). Data from this study indicated that students who reported daily repeated reading increased their reading rate more than students who did not report daily repeated readings. Therefore, the researcher suggests an increased emphasis on daily repeated readings at the parent development seminar. The seminar in this study emphasized the reading strategies such as echo, NIM, and shared reading during the parent development seminar and underemphasized the use of repeated readings during the training. Although parents and students were encouraged to read and record books as many times as they read them, the value of repeated readings was not the focus of the parent development seminar. Based on the data from this study (99% confidence interval), daily repeated readings are an integral component of a summer reading program.

These findings are in alignment with previous research regarding the effectiveness of repeated readings on ORF (Beers, 2003; Morrow, 2005; Samuels, 1979; Walker, 2008) for students reading on a first- through third-grade independent reading level (Faver, 2008; Walker, 2008). Some repeated reading strategies include echo reading, NIM, model reading, choral reading, partner reading, and other similar methods (Beers, 2003; Faver, 2008; Morrow, 2005; Rasinski et al., 2008; Walker, 2008). Although this study did not find that the three repeated reading strategies taught during the parent development seminar had a positive impact on students' summer reading losses, the findings do support the positive impact of daily repeated readings on summer reading loss as measured by ORF.

Because parents play a critical role in home literacy and early reading development, it is important to encourage and include parents in the efforts to target summer reading loss (Kim & White, 2011; Morrow et al., 2006; Waldbart et al., 2006).

Friedman and Mandelbaum (2011) noted two studies underscoring the impact parents have on a student's reading achievement. Friedman and Mandelbaum quoted Andreas Schleicher, overseer of the Programme for International Student Assessment (PISA) saying, "just asking your child how was their school day and showing genuine interest in the learning that they are doing can have the same impact as hours of private tutoring" (p. 136). Heyns (1978) suggested that family attitudes toward education and parent-child interactions are important factors that have an impact on a child's education. Although the number of reading strategies recorded by parents did not result in a statistically significant difference, based on the differences in pretest/posttest scores for the treatment group in comparison to the control group, as well as the differences in pretest/posttest scores for the red zone in comparison to the green zone, this researcher suggests that increased parent interaction with their child may have had an impact on their child's summer reading loss. Based on the qualitative data from the contact logs and questionnaires, the strategies provided parents with a framework through which to interact with their child through reading.

These findings are significant because Title I teachers can teach parents how to interact with their child through reading using these reading strategies. Title I teachers can also encourage and emphasize the use of daily repeated readings in the parent development seminar. A revision to the reading log should be made in order to emphasize and encourage daily repeated readings to the student. One suggestion would be to add a column for a star, sticker, or smiley for each book read repeatedly each day. This may encourage the child to choose books on his/her reading level and to "practice reading" multiple times. Samuels (1979) suggested that reading skills should be practiced just like musical or athletic skills. His finding is evident in this study as well,

based on the significant impact repeated readings had on students' summer reading losses.

Face-to-face communication. Begley (2004) insisted that "Face-to-Face communication remains the most powerful human interaction" (p. 3). She noted that face-to-face communication builds relationships, even if for a brief moment, in comparison to technology-assisted communication such as telephones, email, or texting. Ean (2010) also noted that students in primary grades were more satisfied with face-to-face communication. Rigor, relevance, and relationships have been in the educational spotlight recently. McNulty and Quaglia (2007) reminded the educational community that positive relationships are key to learning for students. Face-to-face interaction in this study may have led to additional, informal support for parents through effective communication and positive relationships. In this study, parents were adult learners and, based on the qualitative and quantitative data, face-to-face communication was more effective than communication via telephone.

This interpretation supports research that suggests that through face-to-face communication, relationships are built. Through positive relationships, learning can occur. Ean (2010) and Begley (2004) both reiterated that face-to-face communication allows for more effective communication. Body language and eye contact, along with other nonverbal cues, decrease miscommunications and improve the effectiveness of the conversation. Additionally, Waldbart et al. (2006) suggested that parents need to feel genuinely invited to participate in order to increase parent involvement. Because face-to-face communication is a more effective means of communication (Begley; Ean) partially because of relationship building, the researcher suggests that face-to-face communication is more effective than telephone communication for similar reasons. The findings of this

study, if based only on quantitative data, would suggest that there is no difference in the type of ongoing communication and summer reading loss ($p=0.094$). However, with 91% confidence in the quantitative data and moderate themes found in qualitative data, this researcher's interpretation supports the impact of face-to-face communication in comparison to communication via telephone.

Another interpretation related to face-to-face communication is the impact it had on the accuracy of self-reported data (reading logs). Based on the discontinuity between data collected from the reading logs and data collected from the contact logs and questionnaires, the researcher questions if the reading occurred and the log was not completed or if the blank logs indicate no reading occurred during those weeks. The parent contact log included a question about the reading log, and parents indicated that it was completed and most parents indicated that their child read 2-3 or 4-5 days per week. Reading logs did not indicate that reading took place at that frequency each week. Reading logs from the students who received face-to-face contact had fewer *blank weeks* than the reading logs from the group who received telephone contact.

This interpretation is significant because Title I schools are required to involve parents and provide opportunities for parents to be involved in their child's education. Money is used from a diminishing Title I budget to provide parents with meaningful parent involvement and development opportunities, so the effectiveness of parent-teacher interactions is imperative. Based on the data from this study, Title I programs can improve the effectiveness of their parental communication by providing as much face-to-face communication for parent development and for summer reading programs as possible.

Home literacy routines. Based on the qualitative and quantitative data found in

this study, the researcher believes there was a positive impact on home literacy routines as a result of the parent development seminar and the home-based summer reading program. Parents reported increased home literacy routines through written responses such as “the whole family read more” and “everyone was involved” in reading activities this summer. One hundred percent of parents responded on the questionnaire that their child read more this summer than in the past. Students in the red zone grew an average of four correct words per minute this summer instead of losing eight words as has happened in the past based on local and national ORF data. The treatment group as a whole decreased its reading rate by 0.4286 correct words per minute. This statistic is less than national and local data indicate has occurred in the past for rising third graders.

Research suggests that the success of a child’s early literacy development is dependent upon parent involvement and is most effective when parents learn to use strategies from school at home with their child (Morrow et al., 2006; Neidermeyer, 1970; Waldbart et al., 2006). The findings of this study are significant because they align with previous research that emphasized the importance of home literacy routines for primary grade students and provided a framework through which teachers can support parents and encourage them to increase literacy related activities at home. Friedman and Mandelbaum (2011) noted how important having books in the home is for student academic achievement. Friedman and Mandelbaum quoted a 2005 study that found “children growing up in homes with many books get 3 years more schooling than children from bookless homes” (p. 136). The parent development seminar and home-based summer reading program in this study provided students with increased access to books, encouraged wide reading and repeated readings, taught parents to use strategies at home, and provided ongoing literacy support for the parent and student during the

summer.

One suggestion that this researcher has regarding home literacy routines is to revise the reading log to emphasize daily repeated readings and to gain a clearer understanding of “reading volume” (see Appendix J). The researcher added another column for a “daily repeated reading sticker” so that daily repeated readings move to the forefront of their minds. This revision may encourage students to read books more than once and remind parents that this practice is acceptable and beneficial. Also, the researcher suggests that the “time” column should be revised to include pages read, chapters read, and book completion. This would provide teachers and parents a means for determining if the child is reading each day and if the time spent reading results in book completion. The researcher also suggests that an additional column that describes the type of book or text would be beneficial. This would allow the parent to determine if the child is reading texts within his or her independent reading level. The researcher suggests that the teacher should revise the log to include a column for parents to ask the child to retell and sign off that the child could do this. If they cannot retell what they read, the parent would be equipped with reading strategies to try from the parent seminar. This revision would reinforce the ultimate goal of reading: comprehension. By including this additional column, students learn to reread the text to improve comprehension if necessary.

Parent involvement in high-poverty schools. In addition, the researcher recommends that schools in economically disadvantaged communities, such as Compassion Elementary School, seek ways in which the school can provide parents with transportation to training seminars. The Title I teacher at Compassion reported that transportation is often the reason parents are unable to attend parent involvement events

hosted at the school. To target this problem, the school's social worker is an in-house resource that teachers can utilize in order to increase the likelihood that parents will be able to attend training seminars and other parent involvement events. In addition to the school's social workers, another option for teachers could be to take the parent seminar into the community by hosting the event at a local church or community center. It may be easier for parents to obtain transportation to a more central location within their community. Parents, educators, and the community at large are all stakeholders in the school's academic success.

Limitations

The researcher recognized that a limitation of the study existed because the instructional designer and researcher were one and the same. In order to address this limitation, measures were taken to reduce researcher bias. The researcher trained other Title I teachers to implement the parent development sessions. The researcher's role in the study was to train the Title I teachers and to plan the parent development seminar. In addition, multiple people collected data from each of the schools in an effort to increase internal validity. Teams of teachers at each school collected pretest and posttest data using the same instruments and the same assessment stories. These teams were already in place at each school and had been trained to evaluate students' reading skills using these assessments prior to the study.

Another limitation of this study was the small sample size and lack of an urban school. The control group consisted of four students from one school and the treatment group included 14 students from three schools. The researcher would suggest that the findings of this study are not generalizable to all rising third-grade students. The findings may be beneficial to the participating schools, students, and parents. Additionally, there

were valuable interpretations found as a result of this data that can inform future research. A sample that included an inner city school is also recommended.

A third limitation of this study was self-reporting errors. The researcher noticed that data collected from the reading logs did not match data collected from the parent contact logs or questionnaires. Some of the participants did not return reading logs and some pages in the reading logs were left blank. The researcher is unsure if reading occurred on the blank weeks or if the student did not engage in reading activities during the weeks where zero books were recorded. This method of data collection may have produced data that was different from what actually happened.

A fourth limitation of this study was the possibility of the researcher effect. The participants responded to the questionnaire and parent contact questions with the understanding that their child's teacher would see and hear the data collected using these tools. Parent and student responses may have been influenced by their desire to please the teacher. Their responses on the questionnaire and contact logs may reflect their desire to provide what they perceived to be expected responses to their child's teacher.

An unforeseen limitation surfaced during the summer of data collection. One of the schools provided tutoring to a few students on a weekly basis. This is another reason why educational research is often quasi-experimental. All outside factors cannot be controlled. Two students (both at Julius Elementary School) received 1 hour of tutoring per week. They have been identified in the data tables in Chapter 4 with an asterisk (*). The researcher felt that it would be unethical to withhold supplemental instruction from a struggling reader in order to maintain a controlled experimental situation. Therefore, the data were included but remain a limitation of the study.

Recommendations

Based on the data collected for this study and the identified limitations, the researcher suggests recommendations for future research. One recommendation would be to increase the sample size to determine the impact of parent development and a home-based summer reading program on students' summer reading losses as measured by ORF. The sample size for this study was small and the control group size was not the same size as the treatment group. A study with equal treatment and control groups with larger sample sizes for each may provide data that can be generalized beyond the scope of this study.

A second recommendation is to make revisions to the parent development seminar and reading log to emphasize the practice of daily repeated readings and book completion. With revisions that include both "pages read" and "minutes read," the researcher would have a better understanding of the number of books read during the summer. An additional column could be added to the log to provide space for a sticker, star, or other acknowledgment for daily repeated readings. With more emphasis on the repeated reading strategy at the parent seminar and on the reading log, the focus would shift from just the reading strategies to an equal focus on repeated readings as well. An additional checkbox to mark if the child completed the book would be beneficial to further study the impact reading volume has on summer reading loss as measured by ORF. A final revision to the log that includes a space for parents to check whether the child can retell the text read would be a beneficial revision for future research. This would provide the researcher with information regarding the child's comprehension of independently read books. It would also provide the parent with a way to scaffold accountability and accuracy on the reading log, which may provide the researcher with a

more accurate record of summer reading.

A third recommendation is to further study the impact of the type of communication parents receive from the teacher. Because initial findings from this study indicate a statistically significant difference (at the 91% confidence interval) in scores based on the type of contact they received, another study that focuses on the ongoing communication aspect of parent development would provide Title I teachers with more data regarding effective summertime communication strategies. Because students in this study showed more growth based on the type of contact their parents received this summer, another study may provide insight regarding the impact of the type of communication on self-reporting methods that were found as limitations of this study.

Summary

This study found that parent development and a home-based reading program had a positive impact on struggling readers. Face-to-face communication was most beneficial for students and had a greater impact on summer reading loss than telephone contact. Daily repeated readings had a significant impact on students' ORFs and the difference in their pretest/posttest scores after an extended break from formal literacy instruction. Finally, home literacy routines increased this summer, which had a positive impact on student motivation to read over summer vacation. In addition to the participating Title I teachers in the study, additional Title I teachers in this district have expressed interest in using this parent development model and home-based summer reading program next summer. The researcher plans to revise the parent development wiki to reflect changes to the reading log and emphasize daily repeated readings for these teachers to use next summer. Additionally, the researcher plans to recommend face-to-face communication based on the data interpreted for this study. These revisions will be made in an effort to

continue the educational battle against summer reading loss.

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Appendix A

Needs Assessment (Parent Survey)

Needs Assessment (Parent Survey)

1. How many books do you have at home on your child's reading level?
 - a. 0-5
 - b. 6-10
 - c. 11-20
 - d. More than 20
2. How would you describe your reading routine at home during the summertime?

3. After 8 weeks of summer vacation, my child has usually...
 - a. Lost skills gained during the school year
 - b. Maintained skills gained during the school year
 - c. Improved skills gained during the school year
4. I would say that my child...
 - a. Loves to read
 - b. Hates to read
 - c. Has no opinion about reading
5. We visit the library _____ times during the summer.

(Please continue on the next page...)

6. I read in the following ways with my child (check any that apply)...

- a. I read aloud to my child.
- b. I let my child read to me.
- c. I take turns reading books with my child.
- d. I read and then my child rereads the same parts.
- e. I read and let my child read aloud with me.

7. Look back at your answer to #6. If you checked more than one, put a star next to the one you do most often.

8. If your child could choose any kind of book to read it would be

- a. Make believe stories
- b. Real-life informational books
- c. Both A and B

9. Would you be interested in learning more about how you can help your child at home over the summer with reading?

- a. Yes
- b. No

Appendix B
Criteria Sheets

Title I
2nd Grade Mid-Year Assessment Criteria Sheet

Total Placement Points

Name: _____ Teacher: _____

School: _____ School Year of Service: _____

NC Wise #: _____ Ethnicity ☐ Race _____ Gender: _____ Birth Year: _____

(Ethnicity- Does Student Identify as Hispanic/Latino?) (Race Options: White, Black, Asian, American Indian or Hawaiian/ Pacific Islander)

1. DIBELS - Oral Reading Fluency

BIBLES Oral Reading Fluency			<u>Oral Reading Fluency</u> <u>Points:</u>
Big Idea – Fluency	Score	Points	
	71 and above =	0 points	
Low Risk	68 - 70 =	1 point	
Some Risk	52 - 67 =	2 points	
At Risk	51 and below =	3 points	
Oral Reading Fluency Score: _____			

2. CBM - Sight Word Identification (Local Norms)

CBM Sight Word Identification (Local Norms)		
Big Idea – Fluency	Score	Points
	79 and above =	0 points
Low Risk	66 – 78 =	1 point
Some Risk	56 - 65 =	2 points
At Risk	55 and below =	3 points
CBM Sight Word Identification Score: _____		

Sight Word Fluency Points:

3. STAR Assessment - Scale Score Key

322 and above = 0 points	STAR Scale Score:	STAR Assessment Points:
248 - 321 = 1 point	<input type="text"/>	
160 - 247 = 2 points	Grade Equivalent:	
90 - 159 = 3 points	<input type="text"/>	
89 and below = 4 points		

4. **DIBELS - Instructional Recommendation** **Rate this student's need based on the DIBELS Class List Report using the Instructional Recommendation Section.

Above Benchmark = 0 points Benchmark = 1 point Strategic = 2 points Intensive = 3 points	<u>DIBELS Instructional Recommendation Points:</u>
---	---

5. **Classroom Teacher Assessment** - - Rate this student's need for Title I service.
 **Rate need based on his/her classroom performance.

Grade Level & Above = 0 points Slightly Below Grade Level = 1 point Well Below Grade Level = 2 points	<u>Teacher Recommendation Points:</u>
---	--

6. **Title I History**

Not Served in Title I Previous Year = 0 points Not Served in Title I Previous Year but on Waiting List = 1 point Placed out of Title I Previous Year and/or reached benchmark = 1 point Served in Title I Previous Year and could use support = 2 points Served in Title I Previous Year and <u>really needs help</u> = 3 points *Transferred from another school system without information on previous placement (Confer with classroom teacher) = 0-3 points	<u>Title I Points:</u>
--	-------------------------------

7. **Retention History**

Was Not Retained Previous Year = 0 points Was Retained Previous Year = 2 points Was Retained Previous Year and could use support = 4 points Was Retained Previous Year and <u>really needs help</u> = 6 points	<u>Retention Points</u>
--	--------------------------------

8. **Tier Level Points – Optional for RTI Schools' Use**

Tier I	Tier 2	Tier 3	Tier Level Points
1 point	3 points	5 points	

<u>Total Placement Points</u>

Appendix C
Needs Assessment (Title I teachers)

Needs Assessment (Title I teachers)

1. Describe your current summer reading packets.

2. Describe the way in which you give the packets to students/parents.

3. Of your Title I first and second graders, describe their reading skills in May in comparison to their reading skills in September, based on the universal screenings.

4. What are some strategies that you have shared with parents in the past to help their child with oral reading fluency?

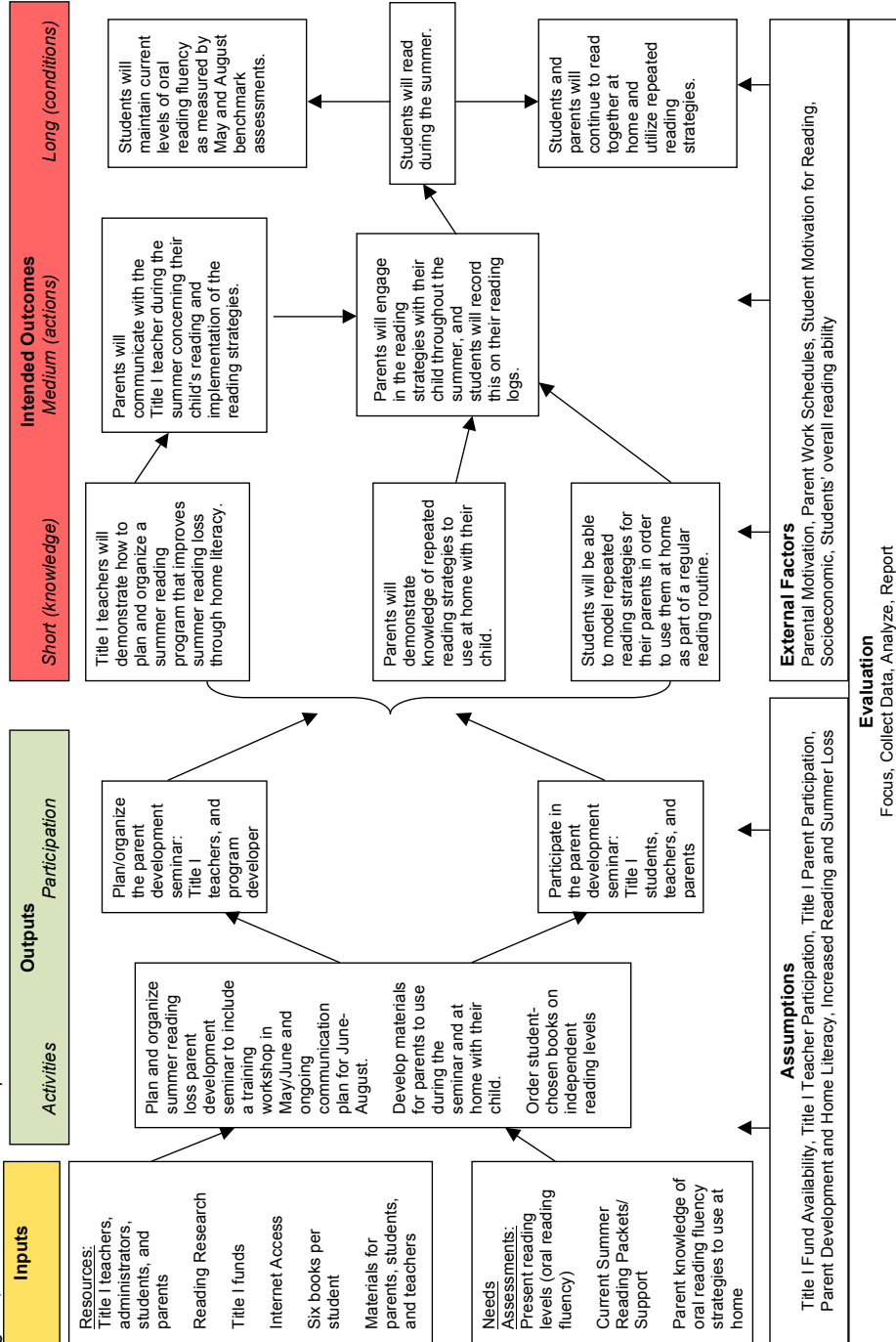
5. How would you describe parental involvement at your school?

Appendix D

A Logic Model Flow Chart

Program: Parent Development Program and Home-based, Summer Reading Strategies Logic Model

Situation: Based on local norms, rising 2nd grade students in this district lose reading skills over the summer at a higher rate than the national average. Both nationally and locally, rising 3rd grade students lose even more over the summer. Title I schools in the district currently supply students with summer reading packets to help target this problem. As part of this study, Title I parents at four schools will be trained to implement home-based, summer reading strategies with a supply of six books in order to determine the effects on oral reading fluency and summer reading routines. Participants will be rising 3rd grade, Title I students and their parents.



Appendix E
Self-Assessment Rubric

Self-Assessment Rubric

Name: _____ Student ID: _____

On a scale of 1-5, how would you rate your ability to use the
NIM reading strategy with your child? (Circle one)

1 2 3 4 5

Name: _____ Student ID: _____

On a scale of 1-5, how would you rate your ability to use the
Echo reading strategy with your child? (circle one)

1 2 3 4 5

Name: _____ Student ID: _____

On a scale of 1-5, how would you rate your ability to use the
Shared reading strategy with your child? (circle one)

1 2 3 4 5

Appendix F

Sample Reading Log (Week Two)

My Summer Reading Log

Name: _____ School: _____ Week 1: [June 16-22, 2013](#)

Day	Book Title	Time	I read this book with...	We used this reading strategy... <i>(put a check beside the any you used)</i>	I give this book a...	Today, I read this book...	Have I read this book before?
Sun. Mon. Tues. Wed. Thurs. Fri. Sat.		_____ Minutes	Myself Parent Brother/Sister Grandparent Aunt/Uncle Cousin Friend Other: _____	____ NIM (someone and I read the words together) ____ Echo (someone read the words first and then I read the same words) ____ Shared (I took turns with someone) ____ Independent (I read it by myself)	  	Once Twice Three times Other: _____	YES NO
Sun. Mon. Tues. Wed. Thurs. Fri. Sat.		_____ Minutes	Myself Parent Brother/Sister Grandparent Aunt/Uncle Cousin Friend Other: _____	____ NIM (someone and I read the words together) ____ Echo (someone read the words first and then I read the same words) ____ Shared (I took turns with someone) ____ Independent (I read it by myself)	  	Once Twice Three times Other: _____	YES NO
Sun. Mon. Tues. Wed. Thurs. Fri. Sat.		_____ Minutes	Myself Parent Brother/Sister Grandparent Aunt/Uncle Cousin Friend Other: _____	____ NIM (someone and I read the words together) ____ Echo (someone read the words first and then I read the same words) ____ Shared (I took turns with someone) ____ Independent (I read it by myself)	  	Once Twice Three times Other: _____	YES NO

Appendix G

Title I Teacher-Parent Contact Log

Title I Teacher-Parent Contact Log (p. 1 of 2)

Date	Topics to Discuss & Anecdotal Notes
	<ol style="list-style-type: none"> 1. How often is your child reading? 2. What types of materials does your child choose to read the most? 3. Have you used any of the repeated reading strategies that you learned at the seminar? If so, how is that going? If not, why not? 4. Has your child recorded their reading on the reading log? 5. Do you have any questions or concerns?
	<ol style="list-style-type: none"> 1. How often is your child reading? 2. What types of materials does your child choose to read the most? 3. Have you used any of the repeated reading strategies that you learned at the seminar? If so, how is that going? If not, why not? 4. Has your child recorded their reading on the reading log? 5. Do you have any questions or concerns?

Appendix H
Questionnaires

Parent Open-ended Questionnaire

School: _____

Date: _____

1. How often did your child read at home this summer per week?
 - ☐ 2-3 days per week
 - ☐ 4-5 days per week
 - ☐ 6-7 days per week
2. How much did your child read in comparison to last summer? Describe any differences?
 - ☐ More than last summer
 - ☐ Less than last summer
 - ☐ About the same as last summer
3. Have reading routines at home changed this summer?
 - ☐ Yes
 - ☐ No

If YES, to what do you attribute these changes?

If NO, describe your child's typical reading routines.

4. Did you use the reading strategies that you learned at the parent seminar?
 - ☐ Yes
 - ☐ No

If YES, how did the strategies affect your child's reading?

If NO, what barriers did you face?

5. Did your child prefer to read different books or the same books repeatedly?
 - ☐ Different books
 - ☐ Same books repeatedly

Parent Open-ended Questionnaire (continued)

School: _____

Date: _____

6. Did your child prefer to read alone, with someone, or for someone to read aloud to them?
- Read Alone
 - Read with someone
 - Listen to someone read aloud

7. Describe how your child sounds while he/she reads.

My child sounds

8. Is this better, worse, or about the same as how he/she sounded in June?
- ☐ Better
 - ☐ Worse
 - ☐ About the same

9. How motivated was your child to read this summer? (circle one)

	1	2	3	4	5
	unmotivated				very motivated

10. Did the reading log motivate your child to read?

- ☐ Yes
- ☐ No

11. Did your child read the books that they picked out at the parent seminar this summer?

- ☐ Yes
- ☐ No

12. Did they read them more than once?

- ☐ Yes
- ☐ No

13. What do you think had the greatest impact on your child's desire (or lack of desire) to read this summer?

Parent Open-ended Questionnaire (continued)

School: _____

Date: _____

14. How do you perceive your child's reading ability now in relationship to last spring?

- ☐ Better than last spring
- ☐ Worse than last spring
- ☐ About the same as last spring

15. What do you think had the greatest impact on your child's reading ability after summer vacation? (Circle any)

- ☐ Reading more books
- ☐ Using the reading strategies
- ☐ Keeping a reading log
- ☐ Keeping in touch with the teacher during the summer
- ☐ Having more books and materials at home
- ☐ Other: _____

16. Was the parent seminar and home-based summer reading program (reading log, communication with teacher, choice of books) an effective way to stop summer reading loss?

- ☐ Yes
- ☐ No

If YES, why was it effective?

If NO, what suggestions to you have for improvement?

17. Additional comments

Parent Open-ended Questionnaire (Control)

School: _____

Date: _____

1. How often did your child read at home this summer per week?
 - ☐ 2-3 days per week
 - ☐ 4-5 days per week
 - ☐ 6-7 days per week

2. How much did your child read in comparison to last summer? Describe any differences?
 - ☐ More than last summer
 - ☐ Less than last summer
 - ☐ About the same as last summer

3. Have reading routines at home changed this summer?
 - ☐ Yes
 - ☐ No

If YES, to what do you attribute these changes?

If NO, describe your child's typical reading routines.

4. Did your child prefer to read different books or the same books repeatedly?
 - ☐ Different books
 - ☐ Same books repeatedly

5. Did your child prefer to read alone, with someone, or for someone to read aloud to them?
 - ☐ Read Alone
 - ☐ Read with someone
 - ☐ Listen to someone read aloud

6. Describe how your child sounds while he/she reads.

My child sounds

Parent Open-ended Questionnaire (*Control- continued*)

School: _____

Date: _____

7. Is this better, worse, or about the same as how he/she sounded in June?
- ☐ Better
- ☐ Worse
- ☐ About the same
8. How motivated was your child to read this summer? (Circle one)
- | | | | | |
|-------------|---|---|---|----------------|
| 1 | 2 | 3 | 4 | 5 |
| unmotivated | | | | very motivated |
9. Did your child read the books that they brought home from school this summer?
- ☐ Yes
- ☐ No
10. Did they read books more than once?
- ☐ Yes
- ☐ No
11. What do you think had the greatest impact on your child's desire (or lack of desire) to read this summer?

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12. How do you perceive your child's reading ability now in relationship to last spring?
- Better than last spring
 - Worse than last spring
 - About the same as last spring

- ### 13. Additional comments

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Appendix I

Email from Title I Teacher at Compassion Elementary School

Printed by: **Morgan V Blanton**
Title: **Re: students : CCSMail**

June 23, 2013 6:11:56 PM
Page 1 of 1

From:  Katie J. Cornwell

June 9, 2013 9:07:12 AM  

Subject: Re: students

To:  **Morgan V. Blanton**

Hi,

We had our parent session on Thursday in conjunction with another parent event in hopes of having more parents show up. We only have 6 2nd graders and unfortunately none of them came. We do have one 2nd grade parent who is a teacher at James Love who will has agreed to be in the control group. I'm very sorry about this, but it is just very hard to get our parents to come to things. Most of them don't have transportation. Also it is official that I won't be at James Love next year and neither will the person that I had hoped could finish up for me in case I wasn't. She has taken another job at another school. So I'm not sure what you want to do. I'm so sorry about this and wish I could have gotten more parents out for the session but they barely come to anything we have. We only had four show up out of 50 for our make it take it day on Thursday. Just let me know what you want me to so and again I'm sorry!

Katie

Sent from FirstClass with my iPhone

Appendix J

Revised Summer Reading Log (excerpt)

My Summer Reading Log

Name: _____ Teacher: _____ Grade: _____

Date	Book Title	What kind? (Circle any)	I read this much...	I read this book with...	We used this reading strategy... (Put a check beside the any you used)	Daily Repeated Reading Sticker	Parent Initials
		AR Book (Level _____) Magazine Newspaper Picture Book Chapter Book Other: _____	____ Minutes ____ Pages ____ Chapters Whole book? Yes No	Myself Parent Brother/Sister Grandparent Aunt/Uncle Cousin Friend Other: _____	____ NIM (someone and I read the words together) ____ Echo (someone read the words first and then I read the same words) ____ Shared (I took turns with someone) ____ Independent (I read it by myself)		