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Keys to Reducing Summer Regression: The Reader, Routine, and Relationship

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ABSTRACT

This study utilized mixed-methods, quasi-experimental design to investigate the impact of parent development and home-based summer reading on summer reading regression (as measured by oral reading fluency) at three Title I elementary schools in North Carolina. Title I parents and students participated in a parent development and communicated throughout the summer. Quantitative and qualitative methods (QUAN-qual) were used to collect and analyze data in order to answer four research questions related to the parent development seminar and reading routines. Quantitative data were collected using a pretest/posttest, reading logs, contact logs, and questionnaires. Qualitative data were collected from the questionnaire responses, parent contact logs, and reading logs. Based on the results of this study, the researcher identified three keys to reducing summer regression: the reader, routine, and relationship.

Keywords: summer reading loss, oral reading fluency, Title I, parent development

INTRODUCTION

The Oxford Dictionary defines regression as “a return to a former or less developed state” (http://www.oxforddictionaries.com/). After 180 days of formal literacy instruction, “a return to a former or less developed state” is a disheartening description of a student’s reading skills after summer vacation.

Struggling readers, who can least afford an academic setback, frequently return to school in the fall having lost more in reading than their classmates after summer vacation (Mraz & Rasinski, 2007). Research has shown that for students from low-income families, such as in Title I schools, summer reading loss is quite significant in
comparison to their higher income counterparts (McGill-Franzen & Allington, 2001).
These students could lose approximately three months of reading development each summer. This regression could result in two years of reading loss by the time they reach sixth grade (McGill-Franzen & Allington, 2001). By high school, the gap may have widened to three or more years of reading loss, which is in addition to any deficits the students already have due to cognitive or circumstantial reasons.

A student’s ability to read is highly correlated with future academic success, which results in a negative outlook for students with skill deficits. 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, the probability increases to six times more likely to drop out before earning a high school diploma.

Cooper (2003) indicates in a meta-analysis of summer learning regression research that 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).

The Matthew Effect, described in the Gospel of Matthew as the “rich get richer and the poor become poorer,” is evident in reading development. The reading rich, or more proficient readers tend to read more and, in turn, improve their reading as a result (Stanovich, 1986), whereas the reading poor are discouraged by laborious attempts at reading so they frequently read less. This routine of practice, or lack of practice, has a significant impact on students’ reading development (Stanovich, 1986). Oral reading fluency (ORF) is the ability to read with accuracy, automaticity, and prosody (Rasinski, 2000). 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 to improve their reading skills to make them automatic and effortless (Rasinski, Homan, & Biggs, 2009; Samuels). The absence of practice over summer vacation, may be the culprit causing summer regression.

**Problem Statement**

In addition to the current and historical trend of summer reading loss (Samuels, Mraz & Rasinski, 2007; Kim & White, 2011), educational leaders in a rural school district have also identified a prevalent problem specifically for rising third graders' oral reading fluency (ORF) skills. Based on national ORF norms (Hasbrouck & Tindal, 2006) and local data from a rural North Carolina school district, rising third grade students lose ORF skills (as measured by reading rate) after an extended summer vacation. Between first and second grade, national norms indicate that students' reading rates regress two words per minute between May and September. Local data from this school district mirrors the national trend. However, nationally and locally, there is an even larger loss in ORF for rising third graders after summer vacation. Rising third grader lose eighteen correct words per minute (nationally) and nine correct words per minute (locally). Summer reading regression is a national issue and, in this district, local data suggest that summer regression in ORF is a problem as well.

**Purpose of the Study**

National and local data indicate a regression in oral reading fluency after summer vacation (Hasbrouck & Tindal, 2006), equivalent to an eight-week break from formal instruction. Parents play a critical role in a child's reading development (Waldbart, Meyers, & Meyers, 2006). They are the most effective strategy educators can employ to improve a child's reading skills. Morrow, Kuhn, & Schwaneflugel (2006) suggest that
teaching parents to use the same reading strategies used in the classroom is a beneficial home-literacy routine. 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).

By educating and supporting parents with strategies to use at home, as well as on-going teacher support during the summer, this study was designed to determine the impact of parent development and home-based summer reading on summer reading loss for rising third-grade Title I students in four of the district’s schools.

A Logic Model Approach

The researcher created a logic model to design a parent development and home-based summer reading program to reduce summer reading loss in four Title I elementary schools. A logic model is a type of flowchart that links resources to results by describing a “series of action that describes what a program is and will do” (University of Wisconsin-Extension, 2012). To ensure that all of the resources, activities, people, and goals were aligned with the long-term goal of maintaining or increasing oral reading fluency over the summer, the researcher used reverse mapping to work backwards from the long-term goal (maintain oral reading fluency over summer vacation) to the inputs (needs and resources).

After the logic model was completed, the researcher used it to create questions that could be asked about each component of the logic model to evaluate the effectiveness of the program. Four of the questions aligned with the short (knowledge),
medium (actions), and long-term (conditions) goals were then used as research questions for this study.

**Research Questions**

The researcher focused the study on four research questions, which were generated using the logic model. Research Questions (RQ) 1, 2, and 3 focus on individual components of the parent development and home-based summer reading program. Research Question (RQ) 4 focuses on the impact that parent development (holistically) had on students’ amount of summer reading losses.

**RQ1.** What is the impact of the parent development seminar on parents’ abilities to demonstrate mastery of reading strategies?

**RQ 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?

**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?

**RQ 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?

**METHODS**

**Participants**

Four Title I elementary schools in a rural North Carolina school district were invited to participate in the study. The researcher assigned the schools the following pseudonyms: Compassion, Whispering Brook, Julius, and Compass Rose Elementary Schools. At least 50% of the student body receives free or reduced lunch at all four
schools. Compassion had the highest percentage of economically disadvantaged students (96.4%), followed by Julius (58.3), Whispering Brook (51%), and Compass Rose (51%). Each school represented a different high school feeder zone in the district. Rising third grade Title I students and their parents were invited to participate in the study. No incentives were given to entice participation in the study. The parent development and on-going support during the summer were the only differences in the services provided to students in the treatment and control groups. Everyone received their choice of books, a friendly folder, and a reading log.

Fourteen students and their parents participated as part of the treatment group and four students and parents participated as part of the control group: Compassion (zero participants), Whispering Brook (six treatment, four control), Julius (three treatment, zero control), and Compass Rose (five treatment, zero control). Compassion Elementary School was unable to participate in the study because no parents attended the parent seminar, many of which cited transportation as an issue. Based on an email from the Title I teacher, this problem is prevalent in this poverty-stricken school. The researcher addresses this issue as part of the discussion of research results.

Hasbrouck (2012) describes three “zones” of readers at the end of second grade: 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.

According to Hasbrouck’s ORF zones, the majority of the participants in this study were either in the red zone or green zone. One student in the control group was in the yellow zone. The majority of the treatment group was considered red zone readers,
which indicated that they needed significant intervention. Maintaining their reading rate over the summer was crucial. Of the fourteen participants in the treatment group eight were in the red zone and six were in the green zone. Of the four control group students, three were considered red zone readers and one was in the yellow zone.

**Instructional Design**

The parent development and home-based summer reading program was designed with best practices in mind. Based on Knowles’ andragogy theory (QOTFC, 2007), which included relevance, respect, and responsibility, the researcher designed a parent development and summer support plan infused with these principles essential to the adult learner. Parents participated in a one-hour seminar to learn more about reading strategies to use at home with their child. All of the teachers used the same materials for the seminar ([http://readingstrategiesforparents.wikispaces.com/home](http://readingstrategiesforparents.wikispaces.com/home)) which were created by the researcher with feedback from the teachers. Mutual adaptations were made to the program to accommodate individual school schedules and budgets. The researcher noted any implementation differences to use during data analysis. Title I teachers taught parents three oral reading fluency strategies including the neuro-impress method (NIM), echo, and partner reading via demonstration (using a one-minute video clip) and simulation (with their own child), followed by a brief parent self-assessment. The learning targets for parents included cognitive, psychomotor, and affective targets: "By the end of this instructional unit, the parents will…

- be able to apply fluency strategies such as NIM, echo, and shared readings
- understand the theories of these strategies as they relate to ORF
- feel empowered by the new knowledge they have about reading fluency strategies
Following the seminar, students were able to take home six to eight books of their choice. Teachers supported parents throughout the summer via phone calls or face-to-face meetings at the school library. The purpose of this communication during the summer was to provide on-going support for parents to reduce misunderstandings, increase accountability and fidelity, and ensure parents’ self-efficacy related to helping their child at home with reading.

**Data Collection and Analysis**

This study utilized both quantitative and qualitative data collection and analysis (QUAN-qual). This quasi-experimental, mixed methods study was more heavily weighted with quantitative data collection and analysis, but the qualitative data provided the researcher with valuable information on which to draw inferences and conclusions (Table 1). The pretest/posttest and parent self-assessments were solely quantitative data collection instruments and were analyzed using descriptive and inferential statistics. The parent contact log, reading log, and questionnaire were used to collect both quantitative and qualitative data, and were analyzed using descriptive statistics, inferential statistics, and thematic coding.

Students were assessed using the end-of-year DIBELS Next ORF benchmark test in May and then reassessed using the same passages in August. The difference in the two scores were recorded and analyzed using a paired samples t-test and a one-way analysis of variance (ANOVA). Using both of these statistical tests, a p-value of 0.05 was used to determine statistical significance. Additionally, parent self-assessments were used to collect quantitative data and were analyzed using descriptive and inferential statistics. The researcher calculated a mean for each parent based on the self-assessment scores. Cumulative percentages were determined to analyze the instructional impact related to the parents’ learning targets, and ANOVA was used to
determine the relationship between mean self-assessment scores and the difference in pretest/posttest scores.

The reading log was used to determine the total number of books read, fluency strategies used, and daily repeated readings (same book, same day). Each of these data sources was analyzed in conjunction with the pretest/posttest scores using ANOVA to determine statistical significance and impact. In addition to the quantitative data collected from the reading logs, the researcher also used qualitative analysis to determine self-reporting accuracy based on the book’s title and length and knowledge of the student’s reading level.

In a similar manner, the parent contact log was used to collect the number of parent contacts during summer vacation. This quantitative data was analyzed using ANOVA. Additionally, the anecdotal notes section of the parent contact log served as a qualitative data collection instrument. The notes were coded for themes in conjunction with the open-ended questionnaire responses.

Finally, the questionnaire was given to parents in August. It consisted of multiple choice, Likert-scale, and open-ended questions. Cumulative percentages and means were calculated, and the written responses were combined with the parent contact log notes to be coded for themes. The researcher used a strength code to analyze the degree to which each theme was supported in the data (Table 1).
<table>
<thead>
<tr>
<th>Research Question</th>
<th>Data Collection Instruments</th>
<th>Analysis</th>
<th>Specifics</th>
</tr>
</thead>
<tbody>
<tr>
<td>RQ 1: What is the impact of the parent development session on parents’ abilities</td>
<td>Likert Scale Parent Self-Assessment</td>
<td>Frequency Distribution Table</td>
<td>Mean and cumulative percentages; Lack of Mastery if mean score &lt; 3 Neutral Mastery if mean score = 3 Positive Mastery if mean score &gt; 3; 80% or higher will indicate positive impact</td>
</tr>
<tr>
<td>to demonstrate mastery of reading strategies?</td>
<td></td>
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<tr>
<td>RQ 2: What is the impact of summer reading volume (number of books initially or</td>
<td>Reading Log, DIBELS Next ORF Pretest/Posttest, questionnaire, parent contact log</td>
<td>Paired Samples t test, one-way</td>
<td>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 &lt; 0.05; Code for common themes using strength codes (based on % of sample)</td>
</tr>
<tr>
<td>repeatedly read) on summer reading loss as measured by the difference in May and</td>
<td></td>
<td>ANOVA, Strength code reading log weekly volume, Transcribe and code for common themes</td>
<td></td>
</tr>
<tr>
<td>August ORF scores?</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>RQ 3: What is the impact of reading strategies (echo, NIM, shared, or repeated</td>
<td>Reading Log, DIBELS Next ORF Pretest/Posttest Questionnaires, contact logs</td>
<td>Paired Samples t test, one-way</td>
<td>Mean and Cumulative Percentages; P &lt; 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)</td>
</tr>
<tr>
<td>readings) on summer reading loss as measured by the difference in May and August</td>
<td></td>
<td>ANOVA, Transcribe and code text for common themes</td>
<td></td>
</tr>
<tr>
<td>ORF scores?</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>RQ 4: What is the impact of parent development on summer reading loss as measured</td>
<td>Parent Self-Assessments, DIBELS Next ORF Pretest/Posttest, questionnaires, contact logs,</td>
<td>One-way ANOVA Paired Samples t</td>
<td>Mean and Cumulative Percentages, Compare with nonequivalent control group, P &lt; 0.05, Code for common themes; Strength codes (based on % of sample)</td>
</tr>
<tr>
<td>by the difference in May and August ORF scores?</td>
<td>reading logs</td>
<td>test, Transcribe and code for common themes</td>
<td></td>
</tr>
</tbody>
</table>
RESULTS

After learning about the reading strategies (echo, NIM, and shared reading) at the parent development seminar, twelve of the fourteen parents (86%) rated themselves with an average self-assessment score between 3.67-5.00 based on a five-point Likert scale. Two of the fourteen parents (14%) did not complete the self-assessment.

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. 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 the data collected in this study (Table 2), the treatment group participants' oral reading fluency skills (rate and accuracy) did not regress as much as participants in the control group. The treatment groups’ mean difference in pretest/posttest scores was -0.4286 correct words per minute. The control group’s mean difference was -7.5000 correct words per minute.
Table 2

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

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

Note. * indicates that the student received 1 hour of tutoring per week during the summer in addition to the home-based summer reading program.
By disaggregating the data within the treatment group (Figure 1), the researcher found that 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). The mean difference in the red zone’s pretest/posttest scores was 4.0000 correct words per minute, whereas the difference in the green zone’s pretest/posttest scores was -6.3333. The majority of the red zone population was below the 10th percentile in this district.

Quantitatively there was no statistically significant difference (p < 0.05) based on the volume of books or the number or reading strategies used per week. A one-way ANOVA was applied to the pretest/posttest scores (differences) and the weekly reading volume (p=0.496). The test indicated that the difference was not statistically significant at the 95% confidence interval. The researcher also 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). Qualitatively, a moderate theme was identified as reading strategies related to motivation and encouragement, and a strong theme was identified related to “reading more books.” Questionnaire responses such as, “(Strategies) Encouraged her to read on her own and that I (her mother) was always here to help”
(WB1) and “Not only was my child reading, but as a parent I was more involved” (CR1) indicated that parent-child interaction related to reading increased as a result of the reading strategies. “We agreed on a time everyday to read as a family” (WB1) and “We went to the library more which made everyone read more” (CR3) supported the survey responses that indicated 100% of participants “read more over the summer” than in previous years.

A one-way ANOVA was applied to the pretest/posttest scores (differences) and reading strategy usage (p=0.687). Additionally, the researcher applied a one-way ANOVA to analyze the differences in pretest/posttest scores and the total number of books read repeatedly in the same day (p=0.011). Although echo, NIM, and shared readings did not have a statistically significant difference, daily repeated readings was statistically significant. Five of the six participants (83.3%) who recorded daily repeated readings increased their reading rate over the summer (Figure 2). One of the six (16.7%) participants decreased their reading rate over the summer. Six of the eight (75%) who did not record daily repeated readings at all during the summer had a decrease in reading rate.

The researcher applied a one-way ANOVA 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.
Two schools opened their libraries during the summer and had face-to-face communication with parents each week (eight total contacts). One school communicated via telephone (up to four total contacts). 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 3 displays the differences in pretest/posttest scores based on the type of parent contact they received. 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).
DISCUSSION

After collecting and analyzing these data, the researcher concluded that the parent development seminar was an effective method for teaching parents how to implement reading strategies. Parents left the seminar feeling confident in their abilities to engage in NIM, echo, and shared readings at home. By pairing demonstration, simulation, and self-assessment the parents in this study mastered the psychomotor, cognitive, and affective learning targets outlined in the seminar.

If the parent development seminar was an effective method for teaching reading strategies to parents, but the use of reading strategies was not statistically significant, why was there such a disparity between the treatment and control group participants’ summer reading regression? As the researcher synthesized and analyzed the qualitative and quantitative data further, three keys to reducing summer regression emerged: the reader, routine, and relationship.

Reader

Qualitative and quantitative data analysis suggests that the treatment provided as part of this study was most beneficial for struggling readers (tenth percentile or below). The participants belonging to the red zone gained oral reading fluency over the summer (4.000 correct words per minute) whereas their counterparts in the green group lost reading rate and accuracy (-6.3333 correct words per minute) based on the
pretest/posttest scores. Considering the average loss between second and third grade is eighteen correct words per minute (nationally) and nine correct words per minute (locally), the researcher concluded that the difference in pretest/posttest scores for the treatment group as a whole (-0.4286 correct word per minute) indicated a positive impact in comparison to the control group and to national and local norm-referenced data (Hasbrouck & Tindal, 2006).

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). Because of these data, and the statistics related to struggling readers and high-school drop-outs, it is imperative to intervene for struggling students to prevent summer reading regression. As for the green zone readers, although they did not regress as much as national and local data indicate, more needs to be done to target this group as well. Many of these participants were on the border of the green and yellow zones, so summer reading loss could make the difference.

Routine

Research suggests that just giving students books is not an effective strategy for summer reading loss (Kim & White, 2011; Mraz & Rasinski, 2007), and this study is further support for that theory. In this study, reading volume or the frequency of readings strategies (NIM, echo, or shared) did not have a significant impact on the students’ summer regression. However, the researcher found that daily repeated readings had significant impact on summer reading loss. Although the amount of reading and the type of reading are important factors, this study found that daily repeated readings had a
greater impact than any of the strategies taught in the seminar and more than the number of books reported on the reading log.

Research has suggested for decades that repeated readings (time and untimed) are an effective strategy for improving students’ ORFs (Samuels, 1979; Rasinski, 2000; Therrien & Kubina, 2006). 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.

**Relationship**

In addition to the reading routine, participants in the treatment group also benefited from positive relationships: parent-child and parent-teacher. Though the frequency or volume of reading strategies (NIM, echo, or shared) did not have a significant impact alone, qualitative data from this study suggests that these strategies led to an improved parent-child interaction related to reading. Friedman and Mandelbaum (2011) 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). In Heyns (1978) foundational study, family attitudes toward education and parent-child interactions are important factors that have an impact on a child’s education. Considering the difference in pretest/posttest scores for treatment (-0.4286) and control (-7.5000) groups, and the qualitative data from the contact logs and questionnaires, the researcher concluded that the reading
strategies taught as part of the parent seminar may have provided parents with a framework through which to interact with their child through reading.

Additionally, parent-teacher communication throughout the summer was a significant factor for students. Face-to-face communication was key in this study. The participants who had face-to-face communication with the teacher had less regression than students who communicated via phone or not at all. It is also important to note that communication via phone had a more positive impact on students' reading regression than no communication at all. Begley (2004) suggests, and the researcher agrees, that face-to-face communication is the most powerful form of communication. It allowed the parent and teacher to form a relationship, even if for a brief moment, that improved communication throughout the summer (Begley, 2004). 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.

**Reach Out**

There are also lessons to be learned from the lack of data. Compassion Elementary was unable to fully participate in the study because no parents attended the parent seminar. The teacher cited transportation as a prevalent issue for parents in her school. Based on this information, the researcher suggests that schools “reach out” to utilize resources for parents in their communities. Hosting a parent seminar at a community center or local church may be more feasible for parents living within walking distance or a short drive. Also, school social workers are available to provide transportation as needed for parents to participate in school-related events. It is
imperative to “reach out” to these parents so they can also help their children reduce summer regression. Research has shown that students from low-income families regress more over the summer than their wealthier counterparts (Cooper, 2003). We must “reach out” to the parents, community leaders, and school-based resources so the gap does not continue to widen between the haves and the have nots.

Limitations

This study has limitations to consider. The sample size was small and was comprised of volunteers. Additionally, the researcher was also the parent seminar instructional designer. To ensure reliability, the researcher/instructional designer did not have contact with parents or students, and did not conduct any of the assessments. Although the findings of this study support long-standing theories, the researcher cautions generalization.

Conclusion

Based on the results of this study, as well as many others, it is evident that summer reading loss remains a problem for our students. The most struggling readers, the ones who can least afford to regress, found success this summer by maintaining literacy routines and interacting with their parents and teachers over books. It is essential to reach out to the struggling readers and low-income families in an effort to reduce summer regression.
REFERENCES


