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STUDENT READING PROGRESS DURING A SUMMER READING CLINIC AND
BEYOND

An Ed.S. Field Project

Presented to the Department of School Psychology

and the

Faculty of the Graduate College

University of Nebraska

In Partial Fulfillment

of the Requirements for the Degree

Education Specialist

University of Nebraska at Omaha

by

Nicole Jennifer Werth

May 2007

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ED.S. FIELD PROJECT ACCEPTANCE

Acceptance for the faculty of the Graduate College,
University of Nebraska, in partial fulfillment of the
requirements for the degree Ed.S.,
University of Nebraska at Omaha.

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Date 6/25/07

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STUDENT READING PROGRESS DURING A SUMMER READING CLINIC AND BEYOND

Nicole Jennifer Werth, Ed.S.

University of Nebraska, 2007

Advisor: Lisa Kelly-Vance

During the summer when many students are out of school, students often fail to make gains academically and may even lose skills they acquired during the school year. This can be a time, however, for remediation of students with academic difficulties. Previous studies have shown the effectiveness of summer reading programs for students struggling in reading during the regular school year. The current study is an evaluation of the effectiveness of a six-week summer reading clinic. Data from eighteen second and third grade students who had been identified as having a learning disability participated in this study. Students in the program were given more individualized instruction than could be provided in the regular classroom. Reading progress was monitored on a weekly basis using DIBELS reading fluency assessments for the duration of the reading clinic. The students were also progress-monitored during the following school year. Results indicate that students did not make a significant gain or loss over the course of the six-week

reading program. Students did make significant growth, however, the following school year.

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Student Reading Progress during a Summer Reading Clinic and Beyond

As schools across the country close for the summer, many students spend their summers away from the classroom. Unfortunately, this time can be detrimental to academic skills, particularly when little is done to encourage the development or even maintenance of skills. While many children are out of school for the summer, they not only fail to make progress in many academic areas, but research has also shown that academic skills may decline over the summer months (Allinder, Fuchs, Fuchs, & Hamlett, 1992; Cooper, Nye, Charlton, Lindsay, & Greathouse, 1996; Reece, Myers, Nofsinger, & Brown, 2000). Cooper et al. reported that students may lose as much as one month's worth of learning over the span of a summer. A loss of academic skills is especially harmful to students who are already academically behind their peers. Students who have below average academic skills at the end of a school year can fall even further behind their peers during the summer months without any maintenance or continued development of those skills (Alexander, Entwisle, & Olson, 2001).

Reading is one such academic skill subject to deterioration over the summer months (Cornelius & Semmel, 1982; Cooper, et al., 1996; Reece, et al., 2000). Because reading is a fundamental academic skill, many summer school programs have been designed to eliminate the setbacks in reading that many children experience during this time. Summer reading programs also aim to improve skills in students who struggle with reading in the regular classroom and reduce the achievement between those students and their peers. There are many examples of such program benefits (Cahn, 1988; Cornelius

& Semmel, 1982; Davis, 2000; Duffy, 2001; Jacobsen, et al., 2002; Kim, 2004; Luftig, 2003; Schacter, 2003; Stage, 2001).

Benefits of Summer Reading Programs

Summer reading programs are believed to be effective for a number of reasons. One such reason is that students in summer reading programs typically have more individual teacher attention due to an increased teacher-to-student ratio (Cahn, 1988; Cornelius & Semmel, 1982; Curry & Zyskowski, 2000; Davis, 2000; Duffy, 2001; Jacobsen, et al., 2002; Mathews & Seibert, 1983; Schacter, 2003; Stage, 2001). Students are generally taught in much smaller groups than may be possible during the regular school year. In their meta-analysis of summer school programs, Cooper, Charlton, Valentine, and Muhlenbruck (2000) found that students had greater outcomes with small group sizes and high teacher-to-student ratios. Smaller class or group sizes also help eliminate student frustration, particularly in those students whose reading skills are behind their peers in a large, regular education classroom (Curry & Zyskowski, 2000).

With greater teacher-to-student ratios, summer reading programs allow teachers to tailor their lessons to best fit all their students (Cooper, et al., 2000; Cornelius & Semmel, 1982; Duffy, 2001; Mathews & Seibert, 1983). Because teachers are able to work with smaller, more homogeneously skilled groups of students, youngsters can be taught at levels more suited for their needs. In such settings, students can be grouped according to skill needs (e.g., letter sounds or fluency). Such individualized skill building is often more difficult during the regular school year with larger class sizes and smaller teacher-to-student ratios.

Summer reading programs can also benefit struggling readers by providing students with more intensive reading instruction than they would receive during the school year (Cahn, 1988; Cornelius & Semmel, 1982; Curry & Zyskowski, 2000; Davis, 2000; Duffy, 2001; Jacobsen, et al., 2002). During the regular school year, the school day consists of varying academic subjects. Summer reading programs allow students to focus entirely on improving reading for the duration of the school day. Even when students only attend a few hours a day, they receive much more concentrated reading instruction than they would on a typical day during the regular school year.

While school can be seen to many children, particularly those who struggle academically as a punitive environment, summer reading programs can make learning fun (Alexander, Entwisle, & Olson, 2001). Summer reading programs are also often “designed to cultivate exploration, creativity, discovery, and play” (Schacter, p. 50, 2003). Many summer reading programs are able to provide more relaxed atmospheres for students than classrooms during the regular school year (Curry & Zyskowski, 2000; Davis, 2000; Duffy, 2001; Schacter, 2003). Summer reading programs allow for more extended opportunities than the regular school year classroom. Such opportunities can include teacher read alouds, book talks, learning centers, and other activities designed to encourage creativity and promote positive attitudes toward reading.

Effectiveness of Past Summer Reading Programs

The summer reading programs discussed below vary in duration, curriculum, and types of measures used to monitor student progress. However, all summer reading programs included in this literature review were designed to help students in early

elementary grades who had been identified as struggling readers or who had risk factors (such as low socioeconomic status or below average scores on standardized reading assessments) that have been shown to correlate with lower reading achievement (Alexander, Entwisle, & Olson, 2001).

As with other elements of summer reading programs, the amount of progress students show throughout the course of the summer has been shown to vary. While many programs have been able to demonstrate statistically significant gains by enrolled students (Cahn, 1988; Curry & Zyskowski, 2000; Luftig, 2003; Schacter, 2003; Stage 2001), others report qualitative gains (Davis, 2000; Duffy, 2001). Additional research has shown that students who take part in reading programs during the summer are better able to maintain reading skills and retain what has been learned over the course of the regular school year than peers who do not receive support (Cornelius & Semmel, 1982). However, there is also evidence that summer reading programs may not always lead to significant gains or provide a means for retention of information over the summer break (Sainsbury, Whetton, Mason & Schagen, 1998). Sainsbury et al. reported that students who participated in a summer reading program had lower reading scores at the conclusion of that program than at the beginning.

Schacter (2003) evaluated the effectiveness of an 8-week summer reading program for economically disadvantaged children in Los Angeles. Twenty-one first grade students from low socioeconomic backgrounds, all of whom received free or reduced lunch prices, participated in the reading program over the summer. All students from three Title I first grade schools were invited to participate. The reading camp ran 5

days a week with concentrated reading instruction lasting 2 hours each day. Activities in the program included whole class teacher storybook reading, phonics instruction, paired reading, direct reading instruction, and writing.

Students enrolled in the program were given pretests and posttests in the areas of vocabulary, comprehension, phonics, and oral reading fluency. Additionally, a control group made up of students who were not enrolled in the summer reading program but who attended the same schools during the regular school year, was administered the pre and posttests. The testing revealed that students who attended the reading camp scored better on measures of vocabulary, comprehension, phonics, and oral reading fluency than the control group of students who did not have reading support over the summer.

Students who received the summer reading intervention also showed significant gains from pretesting to posttesting in those same four areas. Furthermore, Schacter (2003) found that while the reading scores of students who attended the reading camp rose significantly throughout the course of the camp, the scores of control students remained unchanged, or decreased. First grade students in the control group performed significantly better on the phonics pretest, administered at the beginning of the summer, than they did on the posttest, administered two months later, indicating a loss of phonics skills over the summer months.

Luftig (2003) found similar results when comparing first-grade students who received summer reading support to those who did not. This study compared pretest and posttest scores of three groups of children: first through fourth grade students enrolled in a school-based summer reading program, second through fourth grade students who

attended summer classes through a private, for-profit company specializing in enhancing academic performance, and first through fourth grade students in a control group who did not receive formal reading support over the summer.

The two reading programs Luftig (2003) evaluated ran for 3 weeks each. All of the students included in the study resided in an economically disadvantaged area of their Ohio city and had been identified as being seriously at-risk for reading achievement by their school district. A total of 50 students attended the school-based program. They were taught phonics and word-recognition in groups of approximately four students. The 33 students who attended the private reading program also received instruction that focused on phonics. Rather than learning in small groups, however, their reading program was computer-based. The amount of time spent in the programs also differed between the two groups. While the mean number of time spent in school for those students in the school-based group was only 7 hours, the mean number of hours the for-profit group spent learning during the three weeks was 32 hours.

The results showed that first grade students enrolled in the school-based program performed significantly better on posttests in the areas of story retell and comprehension than students in the control group. Those first grade students enrolled in the school-based program also made significant gains over the summer in the areas of phonological awareness, story retell, and comprehension, whereas students in the control group did not. Students in grades two through four were assessed in the areas of vocabulary and comprehension. Those students were found to have significantly higher posttest scores at the end of the summer than students in a control group. The amount of progress made

over the summer did not differ significantly between the school-based and private intervention groups. What did differ significantly, however, was the amount of time spent in instruction between the two groups. Students who received small group instruction from a teacher made as much progress as those who received over four times as many hours of computer-based instruction.

Curry and Zyskowski (2000) also found that elementary age students enrolled in a reading program made gains throughout the summer. This study evaluated a district-wide summer reading program in Austin, Texas for students who were below grade level or at risk for retention. The program, for students in grades one through three, lasted 4 weeks for approximately 3 hours per day. Throughout the district, 2,406 students attended the program in 10 different schools. Students engaged in sustained silent reading, shared reading, shared writing, phonemic awareness activities, reading/writing workshops, guided reading, reading aloud, and reflection and sharing. Class sizes varied, however all contained considerably fewer students than would be found in a regular education classroom during the school year with the average teacher to student ratio being 14:1.

Student progress was measured by pretesting and posttesting which assessed oral reading fluency and comprehension with the *Developmental Reading Assessment* (DRA) (Beaver, 1998). Curry and Zyskowski (2000) reported student reading progress. The average gain for students in the program was between one fourth to one half of an academic year of progress. This study also reported that 36% of the students who began the program below grade level ended the program at or above grade level based on DRA

measures. Curry and Zyskowski failed, however, to include a statistical analysis of the data indicating whether or not students made significant gains nor was student progress compared with that from a control group.

Stage (2001) provided further evidence that summer is a time when students who lag behind their peers have the opportunity to make significant gains. This study evaluated the effectiveness of a six-week summer school program located in a rural agricultural area. Students who consistently scored below the 25th percentile on curriculum based measurement (CBM) reading fluency probes which administered throughout the regular school year were selected for the summer reading program. Twenty-eight second grade students participated, attending the reading program five half days, five days per week. The enriched curriculum allowed student to read in one-on-one and small group settings.

Progress made over the course of summer reading program was measured by comparing students' scores in May, at the end of the school year, on reading CBM to scores obtained at the beginning of the next school year in August. While all children enrolled in the program began the summer behind their peers, the average August CBM reading level of children enrolled in the summer reading program was commensurate with general education students' reading levels in May, indicating the students enrolled in summer school were able to "catch up" with their peers.

Further studies have evaluated the effectiveness of summer reading programs implemented to serve a wider age range of students. Cahn's (1988) study included 684 students ranging from first through eighth grade. New Orleans students included in the

program had been referred for diagnosis and remediation of reading problems by teachers, social workers, and physicians. Students were excluded from the program if they were reading at or above grade level. Of the 8-week program, 22 days were spent on reading instruction. Students had 2 hours and 20 minutes of instructional time per day. Classes, which were determined by reading ability and chronological age, were broken into groups of 6 to 10 pupils for instruction. Skills taught included reading readiness skills, sight vocabulary, letter recognition, letter-sound relationships, and word synthesis, comprehension, and dictionary use. The skills that were emphasized for each group of students were dependent on the group's skills upon entering the summer program.

Results indicated that gains made over the summer may be variable depending on grade level (Cahn, 1988). Consistent with Schacter (2003), Luftig (2003), Curry and Zyskowski (2000), and Stage (2001), students in early elementary grades were shown to make significant progress. First through third grade students made significant vocabulary gains over the summer based means from pre and posttests. Vocabulary scores did not increase significantly for students in grades four through six but did for seventh and eighth graders. Like vocabulary, comprehension was found to increase significantly for students in grades one through three. Comprehension did not, however, increase significantly for older students. This study provided evidence that younger students are able to make the most growth by attending summer reading programs.

Duffy (2001) used qualitative data from audio and video tapes, field notes, student work samples, running records, and written and verbal parent communication, as well as qualitative inventories, to evaluate the effectiveness of a summer reading program. Ten

second grade students from a rural region of the Southeast who had been identified as below grade level in reading on a state-mandated reading assessment participated in the program. This 5-week program consisted of 21 instructional days for students, each day lasting 3 hours. Classroom activities included whole group reading and word sorting, individual reading and writing, book talks and read alouds, small-groups instructional level support reading, and end-of-day activities during which students had the opportunity to share their ideas about the readings and day's activities with other students.

Through the varied types of data collection, Duffy (2001) was able to identify six areas of growth in her students. Students' word identification abilities improved, as shown by better recognition and decoding of more difficult words, spelling abilities, and use of word identification strategies. Students also made gains in reading and writing fluency. They became more strategic in reading comprehension, as shown by improved comprehension scores and students' ability to verbalize more acceptable comprehension strategies. There was evidence that students developed better perceptions of themselves as readers and gained more positive attitudes toward reading. Finally, instructional reading levels increased.

Davis (2000) was also able to demonstrate the effectiveness of a reading program using qualitative data. This reading program lasted for 8 weeks. The first grade students who participated in the program had been eligible for Title I services, were candidates for retention, had excessive absences, or needed additional classroom support to maintain reading progress. All students resided in southwest Texas and came from low-income

families. The class of 11 students was taught by one teacher. Activities in the program included independent reading, journaling, phonological awareness lessons, and guided reading.

Davis' (2000) measures showed that students made growth over the course of the reading program. Qualitative data was collected through journal writing, informal observation of classroom responses, and daily running records. Not only did students' reading abilities improve according to Davis, but also students' attitude toward reading and school confidence levels showed improvement over the course of the summer. Parents who completed a survey upon their students' completion of the program reported improvements in their students' reading abilities.

Cornelius and Semmel (1982) showed that the growth made throughout a brief summer reading program can allow students to maintain reading skills throughout the summer months. Sixty elementary students from Southern California in grades 3 through 8 who had been diagnosed with a learning disability in reading during the regular school year were enrolled in the reading program over the summer. Throughout the 5 week session, students were placed in small groups of 5 in order to receive reading instruction suited to their ability level as determined by diagnostic tests given prior to the beginning of the intervention. Reading classes lasted an hour each day Monday through Friday.

Results from this study (Cornelius & Semmel, 1982) indicated that students enrolled in the summer program made significant gains over the course of the 5 weeks as assessed by oral reading fluency measures. Although the gains were not fully maintained throughout the remainder of the summer following the reading program, they were strong

enough to prevent regression from the end of one school year to the beginning of the following one. The students who received the intervention were not reading more fluently than they had at the end of the previous school year, when they entered school following the intervention. They did, however, have significantly higher reading rates than the control group at the beginning of the school year. In other words, students who had participated in the summer program did not regress, while the control group, also consisting also of students who had been identified with learning disabilities, showed some regression.

Evidence does not universally support the effectiveness of summer reading programs. Sainsbury, et al. (1998) failed to note any significant gains for students enrolled in a 5-week program. The program was implemented by the government of Great Britain for 11-year-old students who were reading at a level considered significantly below average and did not meet national reading standards. Nine hundred twenty-five students' from 43 different schools were included in the study of summer school effectiveness. Because so many schools were included in the study and the government had not set up specific standards for the summer curriculum, the schools varied in terms of instruction. All students did, however, receive approximately 50 hours of instruction over the course of the summer.

Sainsbury, et al. (1998) found that not only did the scores from the control group decrease significantly from pretest to posttest, students who had been in the summer program also scored lower on the reading test after the summer. The posttest scores of the students who participated in the intervention were not significantly different from

those of the control group. The authors proposed that motivation may have been the reason for the decrease in scores. At the end of the regular school year, teachers have a tendency to emphasize the importance of the test all the students took, which were then used as the pretest scores. Students were not given as much pressure to do well, however, upon returning to school and taking the posttest. The authors also argued that the curriculum taught during the summer may not have overlapped well with the pretest and posttest measures. Unlike other research, Sainsburry, et al. failed to indicate whether students in the summer program received more individualized instruction or were taught smaller group sizes than would generally be offered during the regular school year. Students included in this research were also older than the students seen to make significant gains as a result of other summer reading programs.

The above studies have consistently demonstrated that early elementary level students make the most significant gains over the summer. Students beyond their first few of years in elementary school have been shown to benefit from summer reading programs by maintaining their literacy skills throughout the summer; however, students beyond third grade have not been shown to make significant progress as the result of summer reading support. Schacter (2003) and Luftig (2003) reported that first grade students made significant progress over the summer and performed significantly better on posttests at the end of the summer than first graders in a control group. Students in second grade were also found to make significant gains over the summer (Stage, 2001). Curry and Zyskowski (2000), Davis (2000), and Duffy (2001) also provided evidence that students in first, second, and third grade make achievement gains as a result of

attending summer reading programs. Research by Cahn (1988) also supports findings that students in first through third grades can make significant reading progress with support from a summer reading program; students in grades four through eight were found to make less consistent progress. Cornelius and Semmel (1982) reported that students in third through eighth grade, who had been identified with a learning disability, did not make significant reading gains over the summer; however, students who had reading support through the summer did not regress in skills, while a students in a control group did. Sainsbury, et al. (1998) found that 11-year-old students, presumably fifth and sixth graders, failed to make progress, despite attending a summer reading program, and their reading performance at the end of the summer exceed that of a control group.

Previous studies have demonstrated the effectiveness of summer reading programs, particularly for early elementary age students, in the short-term. At the conclusion of summer reading programs, students have been shown to have made gains. What past studies have failed to evaluate is how those students fare beyond the summer program and into the following school year. Can summer reading programs be shown to have a more long-term effect on students' reading performance?

The Present Study

The purpose of this study was to examine the effect of a six-week summer reading program for students in grades two and three on reading progress. Specifically, this study evaluated student growth over the course of the summer on a weekly basis. Further, student reading was evaluated over the course of the school year following the summer reading clinic. Past research has shown students, particularly in early elementary grades,

can make progress throughout a summer reading session, but research has failed to evaluate student progress into the following school year.

Method

Participants and Setting

The summer reading clinic was implemented by a school district of approximately 9,000 elementary students in the Midwest. Funding for the clinic came from a Special Education Continuous Improvement Grant from the state department of education. A certified teacher from the district ran each of the two clinic classrooms with the help of one paraeducator in each of the classrooms.

Twenty-five elementary students, 5 female and 13 male, participated in the summer reading clinic. Of those students, 18 were progress monitored the following school year. Because there is no data beyond the summer reading clinic for seven of the students, only the data from the 18 students who were progress monitored the following school year was used. Sixteen of the 18 students in the study were Caucasian (non-Hispanic), while two of the students were from Hispanic backgrounds. Of the students, 8 were second-graders and 10 third-graders the school year following the summer reading clinic. Seven of the students were seven years old at the beginning of the program, the other 11 were eight years old. Twelve of the students in the program qualified for free or reduced lunch. All students enrolled in the program had been previously identified with a learning disability and received special education services during the regular school year. Additionally, all students had reading as a goal on their individual education plans (IEPs). The summer reading clinic was free to all students, and participation in the program was

voluntary. Table 1 shows the number of students from each grade level as well as the gender of students in both the morning and afternoon sessions, both in total and for the 18 students whose progress was monitored the following year.

Instruments

Student progress was monitored with *Dynamic Indicators of Basic Early Literacy Skills* (DIBELS) (Good, Kaminski, & Smith, 2002) assessments, specifically the DIBELS Oral Reading Fluency (ORF) passages. “DIBELS are a set of standardized, individually administered measures of early literacy development” according to the “Official DIBELS Home Page” (*Dynamic Indicators of Basic Early Literacy Skills*, 2005). DIBELS was designed using guidelines set forth by the National Reading Panel (2000) and the National Research Council (1998). DIBELS can be used to assess and monitor phonemic awareness, the alphabetic principal, reading fluency, and comprehension. Reading fluency was primarily monitored throughout the summer program.

DIBELS ORF Probes were designed to both as a screen tool to help identify students who may need extra reading support and as a reading progress monitoring measure (Good, Kaminiski, & Dill, 2002). The passages were developed for grades one through six. Readability levels differ by grade level. Good and Kaminski (2002) developed the passages by writing short passages of approximate difficulty, editing for content and grammar, then revising and refining to fit the appropriated readability level. Readability levels were based on the “goal level of reading for each grade level” (Good, et al., p. 30, 2002), the end of the student’s current grade or the beginning of the next grade. The Spache (1981) readability formula was selected to create and revise passages

for first through third grade students (Good & Kaminski, 2002). Passages are brief and range in length from approximately 175 words to 375 words, depending on the grade level.

The Assessment Committee Analysis of Reading Assessment Measures (2002) reported DIBELS ORF probes to have an alternate form reliability ranging from .89 to .96. The Committee also reported that DIBELS ORF probes to have concurrent validity ($r = .91 - .96$) when compared with the *Test of Reading Fluency* (Children's Educational Services, 1987). Several studies have reported DIBELS ORF has significant predictive validity when assessing whether students will meet expectations on state achievement tests (Barger, 2003; Buck & Torgesen, 2003; Shaw & Shaw, 2000; Wilson, 2005).

Procedures

Before the clinic began, preliminary data were collected to determine students' prereading or reading levels. Speech therapists and teachers who worked with the students throughout the school year and who were trained in administration and scoring conducted the assessments. Students' reading levels were assessed using the *Scott Foresman Early Reading Intervention Placement Test* (Simmons & Kame'enui, 2003) and the *SRA Corrective Reading Program* (Engelmann, Hanner, & Johnson, 2003). The *Scott Foresman Early Reading Intervention Placement Test* was administered one-on-one to assess basic pre-reading skills such as letter naming, the ability to recognize first sounds in words, whole word segmentation, letter-sound recognition in isolation and in whole words, and word reading. This assessment has six parts which were designed to assess progressively more advanced early literacy skills. The six parts were administered

in the following order: Letter Names and Sounds Tests (student is asked the name and sound of a series of letters); First Sounds in Words Test (student is asked the first sound in a series of orally presented words); Whole Word Segmentation Test (student names all the sounds in brief, three-letter words); Letter-Sound Test (student is asked to identify initial and final sound from orally presented word by choosing the correct letters); Whole Word Letter-Sound Test (student is asked to identify all sounds in orally presented word by choosing correct letters); and Beginning Word-Reading Test (student is asked to read brief, 2-3 letter words by first sounding them out). The Placement Test provides recommendations for which lesson of the *Scott Foresman Early Reading Intervention* (ERI) is appropriate based on which early reading skills the student has mastered.

Students who had mastered skills assessed on the ERI Placement Test were given further assessments from the *SRA Corrective Reading Program*. Like the ERI Placement Test, these assessments were designed to assess which level of the *Corrective Reading Program* was appropriate based on which skills the students had mastered. Letter pronunciation (including long and short vowel sounds), letter blends, and word pronunciation with varying vowel sounds and letter blends. Neither of the publishers of placement tests nor independent researchers provide evidence of reliability or validity.

The summer reading clinic, which began the first week in June, had two classrooms, each with a morning and afternoon class. Each classroom had one elementary school teacher and one paraeducator. The twelve students who were assessed to have the greatest early literacy skill deficits were assigned to the morning classes; the remaining thirteen students attended the afternoon classes.

Each class session lasted two and one half hours and ran from Monday through Thursday. Classes had either 6 or 7 students. Students began class with journal writing. Every day they were given a prompt such as “My favorite holiday is . . .” and were asked to complete the prompt and draw a picture. After journal time, all the students listened to a story read by the teacher. The teacher facilitated discussion about the story by asking questions about what the students thought would happen next. There was also a discussion about what had happened at the end of the story. Next, students worked on language skills. They worked on concepts such as directions, positions, comparisons, and sequencing.

After a break, teachers would begin direct instruction of reading, which lasted 50 minutes. Direct instruction is supported empirically (Kuder, 2001; Stevens, Slavin, & Farnish, 1991) and is endorsed by the National Institute for Literacy (2001). Direct instruction is a systematic and explicit method of teaching. Students learn the names of letters, how letters relate to sounds, how spoken words can be broken into different sounds, and how to blend sounds to make words. According to the National Institute for Literacy, direct reading instruction is an effective technique for teaching beginning readers. Further, this method increases reading comprehension and increases the rate of reading growth in most children (National Institute for Literacy, 2001).

The curriculum used depended on the reading level of students in the classroom. Morning classes received instruction from *Scott Foresman Early Reading Intervention Program* (ERI). The ERI program focuses on teaching students phonological awareness skills, alphabet understanding, and word reading. Students are also taught to relate

phonological awareness to whole word writing. Teachers using the program follow a script to explicitly and systematically teach students the reading skills. The interactive program gives students opportunities to respond, use workbooks, and write on wipe-off cards.

Classes in the afternoon used the *SRA Corrective Reading Program*. Like the ERI program, this method of teaching uses a structured method to explicitly and systematically teach students skills necessary in order to be fluent readers, but was created to include older students. The program, designed for students who are one or more years below grade level in reading, focuses on teaching phonemic awareness and phonics. Teaching methods include word attack skills, story reading, comprehension exercises, spelling, and independent work.

In order to monitor student progress, reading fluency was assessed on a weekly basis (generally on Wednesdays) throughout the six-week summer reading clinic using DIBELS Oral Reading Fluency probes. DIBELS Oral Reading Fluency assessments were administered individually to students. Students were pulled out of the regular classroom by a speech therapist or classroom teacher trained in DIBELS administration and scoring. After a standardized set of instructions are read by the administrator, reading fluency is measured by counting the number of words read per minute by the student. Omission, substitutions, and hesitations that last longer than three seconds are scored as errors. When students corrected errors within three seconds, the word is counted as correct. Data collection continued the following school year with weekly DIBELS ORF progress monitoring by the students' resource teachers. Data from these assessments were used

solely for the purpose of monitoring student progress; they were not used to provide teachers with feedback or to modify instruction.

Data Analysis

In order to determine whether students in the reading program made significant gains over the summer and during the following academic year, *t*-tests of dependent means (two-tailed) were used. The 18 students' reading rates were assessed by comparing words read correct per minute at the beginning of the summer, as assessed by the initial DIBELS ORF reading probe, to words read correct per minute at the conclusion of the summer, as assessed by the final DIBELS ORF probe administered during the reading clinic. The same method was used to assess student reading progress over the course of the following school year; measures of student reading rates taken during the first month of the school year were compared with those taken the following March. Results were considered significant at the $p < .05$ level.

Trend lines were also assessed for individual students. Using Microsoft Excel, the slope, or rate of change, was calculated for each individual student over the six weeks in the summer and during the following school year. Individual student slopes were averaged to arrive at the mean rate of growth over the summer and during the school year.

Results

A *t*-test of dependent means was conducted comparing words read correctly per minute by students at the beginning and end of the summer. Results indicate no significant difference between reading rates at the beginning of the summer ($M = 27.06$,

$SD = 11.07$) and those at the conclusion of the summer reading program ($M = 25.28$, $SD = 15.99$) $t(17) = 0.92$, $p < .05$ (two-tailed). Results did indicate significant levels of growth at the .05 level for reading rates during the following school year ($t(17) = -4.29$), when comparing the first data point of the school year, taken in September, ($M = 31.78$, $SD = 24.48$) to the last data point, taken in March ($M = 51.22$, $SD = 22.04$). Table 2 shows the means, ranges, and standard deviations of words read correctly per minute at the beginning and end of the summer reading clinic and the beginning and end of the following school year.

As a whole, students did not make gains in reading achievement over the summer but statistically maintained reading fluency. The mean growth rate was -1.01 ($SD = 1.17$) words per week over the summer. Mean summer reading fluency slopes for second and third grade students in the morning and afternoon sessions are presented in Table 3. Students did make significant gains the following school year, however. The mean growth rate was 0.75 ($SD = 0.67$) words per week over the course of the following school year. Table 4 provides mean growth rates over the school year by grade level and session.

Individual student trend lines are shown in Figures 1 through 18. Fifteen of the 18 students demonstrated a downward slope over the six data points collected in the summer. As would be expected, given the t -test results, a majority of students had positive trend lines during the school year following the reading clinic. Two students, however, had negative slopes during the school year (see Figures 2 and 12).

Discussion

The purpose of this study was to evaluate the effectiveness of a summer reading program, both over the course of the summer and into the following year, for first and second grade students who had been identified as having learning disabilities. Unlike previous research which demonstrated that student in their early elementary years make gains through summer reading programs (Cahn, 1988; Curry & Zyskowski, 2000; Luftig, 2003; Schacter, 2003; Stage, 2001), the second and third grade students in this study were not found to make reading gains over the summer and, on average, their trend lines had a downward slope over the course of the reading program.

Individual student trend lines show that only three students made positive growth over the summer (see Figures 3, 9 and 15). It should be noted, however, that none of those trend lines show steady gains over the six weeks. Students 3 and 15 showed wide-ranging variability in fluency scores from week to week, while Student 9 had a downward trend through the first five weeks of the program with a spike in reading fluency during the final week.

One possible explanation for why students failed to show gains in reading fluency over the summer may be the population of students who participated in the present study. Past studies, which showed early elementary students to make gains over the summer, included students who were identified as academically “at-risk” (Curry & Zyskowski, 2000; Luftig, 2003, Stage, 2001), recommended by teachers or other professionals (Cahn, 1988), or who came from impoverished homes (Schacter, 2003). Students who participated in the current study had all been previously identified with a learning

disability, qualified for special education services, and had specific reading goals in their IEPs. None of the previous research specifically targeted first and second grade students who had been identified as having learning disabilities or who were receiving special education services. The effects of summer reading programs may not be as profound for this particular group of students.

Although the average trend for students' fluency rates in the summer was negative, this decrease was not significant. This finding is consistent with research from Cornelius and Semmel (1982), which indicated that students identified with learning disabilities, who participate in summer reading programs, do not make significant losses over the summer. Students who participated in the present study may have been able to retain skills that would otherwise have been lost without the reinforcement that the clinic provided.

Despite the fact that most students failed to increase reading fluency rates over the summer, students were shown to make significant reading gains the over the course of the following school year. Sixteen of the 18 students had positive trend lines during the school year (see Figures 1, 3-11, & 13-18). The mean growth rate for the second graders was over 1 word per week; for the third graders, it was 0.50. In a meta-analysis, Deon, Fuchs, Martson, and Shin (2001) reported that second grade general education students make reading gains at a rate of 1.66 words per week, while third graders have growth rates of 1.18 words per week. Deno et al. also reported that special education students with learning disabilities make gains at a rate of less than half of what is typical for students in general education. On average, the authors reported that second grade

students with learning disabilities gain .57 words per week, while third grade students show growth at a rate of .58 words per week. The second grade students in this study made progress at a more rapid rate than would be expected for students with learning disabilities, while the third grade students' progress was slightly below the expected rate.

Data from several students indicate that the summer reading program may have had a latent effect on reading fluency rates (see Figures 1, 2, 5, 12, 13, & 16) for some students in the program. In September of the school year following the summer reading program, six students were able to read at a faster rate than they had been able to read while being progress monitored in June and July. It is possible that these students who did not show significant reading growth during the summer reading program acquired skills that helped them boost their reading rates when they returned to school in the fall.

Implications

Without data from a control group, implications that can be made from the current study are limited. However, it is important to note that students who were in the summer reading clinic did not make significant declines over the summer, while previous studies have documented that students can make significant losses over the summer (Cornelius & Semmel, 1982; Schacter, 2003). This program may have provided the first and second grade students, who had been identified with learning disabilities, enough support that they failed to regress. Furthermore, in the school year following the summer reading clinic, the students in second grade made reading fluency gains at a more rapid rate than is generally seen in students with learning disabilities. This may be the result of receiving additional reading instruction during the summer.

On the other hand, students were not shown to make significant progress over the course of the summer program. Throughout the six-week reading clinic, students may have learned fundamental skills which were not directly measured with DIBELS Oral Reading Fluency probes, which do not specifically assess gains in basic early literacy skills. While the reading curricula used in the present study focused phonological awareness skills, word reading, and writing with the goal of increasing students' reading fluency rates and, ultimately, comprehension, the measure of reading achievement in the present study was limited to oral reading fluency rates. Although phonological awareness and basic word reading skills are the building blocks for fluent reading, these skills were not directly assessed as part of the current study as they were in previous research (Cahn, 1988; Curry & Zyskowski, 2000; Luftig, 2003; Schacter, 2003). DIBELS Letter Naming Fluency, Phoneme Segmentation Fluency, and Nonsense Word Fluency would have been able to assess the more basic reading skills which were directly taught to the students. Because specific skills were not directly assessed, students may have made gains in these early reading areas that were not detected with DIBELS ORF measurements. A direct assessment of the dependent variable should be used to provide accurate information about specific skills gains.

Because neither of the reading curricula used in the summer reading clinic has been designed or proven effective for durations less than several months, neither the *Scott Foresman Early Reading Intervention Program* nor the *SRA Corrective Reading Program* may be effective as summer reading interventions; the instruction was not designed to boost reading skills in the short-term. The students enrolled in the summer

clinic did not receive the same reading curriculum during the regular school year, thus both programs were used as short-term interventions. Not only did the students in the reading clinic need to adjust to a new classroom environment, teacher, students, and routine in the span of several weeks, they also needed to adjust to instruction that differed from that which they received during the regular school year. Students may have benefited from a program or interventions that were designed for the short-term and took the transitioning factors into account, rather than a program that was designed for stability and continuity over a minimum of several months.

Limitations and Suggestions for Future Research

The brevity of reading program implementation may be one reason why students failed to show reading fluency growth over the six weeks. Although the reading curricula used in the summer reading program is empirically based, they may not have been implemented for a sufficient amount of time for students to make significant fluency gains. The Florida Center for Reading Research (2006) reports that the *Scott Foresman Early Reading Intervention* was designed to be implemented on a daily basis for approximately 30 weeks, while the *SRA Corrective Reading Program* was designed to be implemented over the span of half an academic year. The six weeks that were devoted to these programs may not have been sufficient time for students to demonstrate progress in reading fluency.

Not only is the duration of the reading curricula in the present study questionable, the treatment integrity of the curricula is another variable that may have had an impact on student progress. The implementation of the reading programs was not assessed

throughout the summer. Both curricula are script-based; teachers are to closely follow the prescribed format. Treatment integrity is essential to the effectiveness of both programs. Without evidence of treatment integrity, the current study fails to ensure that students in the summer reading program were receiving empirically based instruction.

This study would have benefited from assessments of inter-rater reliability for administration of the progress monitoring assessments (DIBELS ORF). All test administrators received DIBELS training; however, several of the data sets used in this study indicate potential examiner inconsistency. When comparing individual students' trend lines during the summer to those from the following school year, large gaps in the correct words per minute were noted for several students between summer and fall data collection. Three of the students who averaged no more than 20 correct words per minute during the summer were reading over 50 words per minute in the fall when data collection resumed (see Figures 1, 2, & 5). As noted previously, this may be due to latent effects of the program; however, the reverse was noted for at least two students (see Figure 15 & 18). Student 15, who averaged 45 correct words per minute during the summer, was able to read a maximum of 23 correct words per minute the following school year; Student 18 averaged 26 words per minute during the summer, but was unable to surpass 21 words per minute the following school year. These gaps in data highlight the need for evidence of inter-rater reliability, particularly due to the fact that the person who administered the assessments during the summer was not the same person who assessed the students the following school year.

There are several questions that future research could help address with the use of a control group. A control group could provide evidence of whether or not students who were in the reading program retained skills compared with students who did not receive support over the summer. If so, can differences between students who were and were not in the summer reading program be seen at the conclusion of the following school year; are there long-term effects? A control group would be beneficial in order to determine whether summer reading programs have residual effects that can be measured during the following academic year. Do students who receive support over the summer make gains at a faster rate during the academic year or than students who do not receive any formal intervention?

Summary and Conclusion

The present study examined reading fluency data collected during a summer reading program and into the following school year. Summer reading programs have been shown to be effective in the short term, particularly for early elementary age students because they allow for more individualized, intensive reading instruction in smaller group settings than can frequently be provided during the regular school year (Cahn, 1988; Curry & Zyskowski, 2000; Davis, 2000; Duffy, 2001; Luftig, 2003; Schacter, 2003; Stage, 2001). The duration, time spent on instruction, and class size in this study did not differ markedly from that of previous studies which were able to document significant reading gains in students throughout the course of summer programs. The students in the current study were not shown to make reading fluency gains over the course of the six-week summer reading clinic. Students' reading rates did

not regress significantly, however, over the course of the program. The following year, students made significant progress with an average growth rate of 0.75 words per week.

Because students were not shown to make significant gains over the course of the six weeks, the overall outcome of this summer reading program does not support the reading curricula used. Both curricula were designed to be implemented over a substantially longer period of time. More research would be needed, however, to determine whether the summer reading program was effective in maintaining students' reading fluency rates over those six weeks. Further research is also necessary in order to assess whether summer reading programs can have a positive impact on students, beyond the immediate effects that take place during the summer months.

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Table 1

Grade and Gender of Students by Session for Students who were Progress Monitored and in Total

	Morning	Afternoon
Second Grade Students	5 (8)	3 (3)
Male Students	4 (5)	2 (2)
Female Students	1 (3)	1 (1)
Third Grade Students	3 (4)	7 (10)
Male Students	2 (3)	5 (7)
Female Students	1 (1)	2 (3)

Note. The total number of students, which includes those who were not progress-monitored the following school year, is indicated in parentheses.

Table 2

Means, Ranges, and Standard Deviations of Student's Words Correct per Minute

First Data Point of Summer		Final Data Point of Summer		First Data Point of School Year		Final Data Point of School Year	
Mean (Range)	Standard Deviation	Mean (Range)	Standard Deviation	Mean (Range)	Standard Deviation	Mean (Range)	Standard Deviation
27.06 (9-49)	11.07	25.28 (6-55)	15.99	31.78 (5-81)	24.48	51.22 (20-86)	22.04

Table 3

Mean Slope and Standard Deviation of Reading Fluency during Summer Reading Program for Morning and Afternoon Sessions by Grade Level

Session	Grade 2		Grade 3		Total	
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>
Morning	-1.43	1.27	-0.39	0.78	-1.04	1.18
Afternoon	-1.18	0.85	-0.89	1.40	-0.98	1.22
Combined	-1.34	1.07	-0.75	1.22	-1.01	1.17

Table 4

Mean Slope and Standard Deviation of Reading Fluency during the School Year

Following the Summer Reading Program for Morning and Afternoon Sessions by Grade Level

Session	Grade 2		Grade 3		Total	
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>
Morning	1.17	0.67	0.29	0.65	0.84	0.77
Afternoon	0.86	0.62	0.58	0.65	0.67	0.62
Combined	1.06	0.63	0.50	0.63	0.75	0.67

Figure Captions

Figure 1. Words correct per minute for Student 1, a Caucasian, third grade male, enrolled in the morning session.

Figure 2. Words correct per minute for Student 2, a Caucasian, third grade female, enrolled in the morning session.

Figure 3. Words correct per minute for Student 3, a Caucasian, third grade male, enrolled in the morning session.

Figure 4. Words correct per minute for Student 4, a Hispanic, second grade male, enrolled in the morning session.

Figure 5. Words correct per minute for Student 5, a Caucasian, second grade male, enrolled in the morning session.

Figure 6. Words correct per minute for Student 6, a Caucasian, second grade male, enrolled in the morning session.

Figure 7. Words correct per minute for Student 7, a Caucasian, second grade male, enrolled in the morning session.

Figure 8. Words correct per minute for Student 8, a Caucasian, second grade female, enrolled in the morning session.

Figure 9. Words correct per minute for Student 9, a Hispanic, third grade male, enrolled in the afternoon session.

Figure 10. Words correct per minute for Student 10, a Caucasian, third grade female, enrolled in the afternoon session.

Figure 11. Words correct per minute for Student 11, a Caucasian, third grade male, enrolled in the afternoon session.

Figure 12. Words correct per minute for Student 12, a Caucasian, third grade male, enrolled in the afternoon session.

Figure 13. Words correct per minute for Student 13, a Caucasian, third grade male, enrolled in the afternoon session.

Figure 14. Words correct per minute for Student 14, a Caucasian, third grade female, enrolled in the afternoon session.

Figure 15. Words correct per minute for Student 15, a Caucasian, third grade male, enrolled in the afternoon session.

Figure 16. Words correct per minute for Student 16, a Caucasian, second grade male, enrolled in the afternoon session.

Figure 17. Words correct per minute for Student 17, a Caucasian, second grade female, enrolled in the afternoon session

Figure 18. Words correct per minute for Student 18, a Caucasian, second grade male, enrolled in the afternoon session.



































