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A Case Study of the Impact of Reading Intervention in Early Elementary School Grade Levels

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A Case Study of the Impact of Reading Interventions in Early Elementary School Grade Levels

By
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Approval Page

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

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Abstract

A Case Study of the Impact of Small Class and Ability Grouping for Intervention in Early Elementary School Grade Levels. Smith, Bonnie S., 2015: Dissertation, Gardner-Webb University, Literacy/Reading Intervention/Early Elementary School

This case study examined the impact of small class size using small group instruction with ability grouping for early literacy intervention. In this study, data were analyzed to determine the impact small class size, paired with small group instruction for intervention, had on students in terms of attaining grade-level proficiency standards.

DIBELS data and facilitator interviews were analyzed from first and second grade intervention and traditional classes to determine the effectiveness of small class size and ability grouping for students to achieve grade-level proficiency in literacy.

Results show that using direct instruction in small groups with Title I inclusion helped students grow in their reading abilities by increasing their self-efficacy. The percentage of first-grade students reaching grade-level proficiency was much higher than that of second-grade students. Interventions were successful; however, it appeared that second-grade students were much further behind in attaining grade-level proficiency.

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Chapter 1: Introduction

Introduction

The ability to read is an essential skill. It is a vital part of all learning and is tied to achievement in an individual's education and success in their career (Garnes & Wichowski, 2004). Biancarosa and Snow (2004) reported that approximately eight million adolescents struggle with reading. Iyengar and Ball (2007) found that one-third of high school seniors are reading proficiently. The U.S. Department of Education suggested reading ability is an essential forecaster of success in mathematics and science. The future of being a globally competitive nation requires today's students to be much more academically advanced than that of earlier generations (Pitcher, Martinez, Dicembre, Fewster, & McCormick, 2010, p. 636).

An Overview of the Research Problem

"Reading is critical because a great deal of formal education depends upon being able to read with understanding. Reading difficulties will inevitably create educational difficulties, which in turn, are a major source of economic and social disadvantages" (Hulme & Snowling, 2011, p. 139). Wise (2009) avowed that regardless of grade level, literacy is the foundation of all student achievement.

Beginning in the school year 2012-2013, the elementary school in the study implemented a frontloaded class in first and second grades. These frontloaded classes contained 12 at-risk students who were identified based on the previous year's end-of-year Dynamic Indicators of Basic Early Literacy Skills (DIBELS) composite scores. These students were placed in a classroom with a teacher who had demonstrated herself as an effective literacy teacher. In addition to the small class size, the students received small-group instruction from the teacher, inclusion from a Title I reading specialist, and a

teacher assistant.

The study school is located in a rural, university community in western North Carolina, where a majority of the parents work in low to moderate income positions. The school is located approximately 1 hour west of Charlotte and 1 hour east of Asheville. Gardner-Webb University, the Ruby C. Hunt YMCA, and numerous local businesses are situated within a few miles of the school's location. These establishments serve as partners that support the school with volunteers, field trip opportunities, and other special educational events throughout the year.

Based on information from the 2010 census, the population of the area is 4,647. The local population is supportive of the school's educational, cultural, and financial events. The majority of the parents have high school diplomas and some college credit or higher. A large percentage of parents regularly attend parent involvement events that are hosted by the Title I Department. These events are intended to reinforce the home/school partnership by offering strategies that parents can use at home to reinforce the curriculum students learn at school. Parents are involved in an active Parent Teacher Organization that provides volunteers and helps to raise money for technology, facility enhancements, and instructional supplies. Many unemployed parents and retirees support the school when there is a need for testing proctors, field trip supervision, and special field day activities such as celebrating the 100th school day (Bettis, 2014).

The study school has strong partnerships with local institutions of higher learning. Students who take classes through the local Community College's Early Childhood Department often fulfill course requirements by volunteering in classrooms by teaching lessons, monitoring small group activities, and tutoring students. Students from the local university's School of Education complete internships and other course requirements at

the school. Each year, the school hosts student teachers from local and surrounding universities (Bettis, 2014).

The school district uses a school improvement model that is recommended by the North Carolina Department of Public Instruction. The study school improvement team consists of the principal, assistant principals, curriculum technology coordinator, representatives from each grade level, instructional support personnel, teacher assistants, and parents of children enrolled in the school. Each year, the school improvement team develops a school improvement plan by assessing the needs of the school, designing strategies for improvement, and monitoring the progress towards meeting the goals. Each year, the school improvement plan is submitted to the Board of Education for approval (Bettis, 2014).

DIBELS is used by the study school to conduct assessments to measure whether or not a student is on track to become a successful reader by the end of second grade. The school improvement team considered it necessary to focus on these early literacy skills based on DIBELS assessment data and by recognizing the importance of preparing primary students to be successful readers by the end of second grade (National Reading Panel, 2000). The local school district uses DIBELS system-wide to measure and assess students' early literacy skills. The composite score is a combination of DIBELS measures to provide an overall summary of student reading proficiency (Bettis, 2104). The school in this study is a traditional elementary school serving students in Grades Kindergarten through 5. One of 16 elementary schools in its school district and the second largest elementary school in the county, the study school has 30 kindergarten through fifth-grade classrooms and serves approximately 660 students with the following population percentages: 74% Caucasian, 13% African-American, 9% Hispanic, 3%

Multi-Racial, and 1% Asian. The enrollment data show that 357 students are male and 307 are female (Bettis, 2014).

In the local school district, the study school currently has the largest number of students receiving English as a Second Language services. The percentage of students receiving free or reduced lunch is 54%. The average class size is 19 in kindergarten through second grade, and 21 in third through fifth grades (Bettis, 2014).

The current staff includes one principal, two assistant principals, and a curriculum technology coordinator. The school has 30 classroom teachers, 18 support teachers, 19 teacher assistants, one secretary, one bookkeeper, one data manager, three custodians, five cafeteria staff, and five tutors. Highly qualified teachers and paraprofessionals deliver school instruction; 100% of the licensed and classified staff is highly qualified. Forty-five percent of the teachers have master's degrees and 11 have received National Board Certification. Ninety-five percent of the teachers have more than 4 years of experience, many of whom have been at the school since its opening in 2000 (Bettis, 2014).

Statement of the Research Problem

According to the National Assessment of Educational Progress (NAEP), roughly 70% of students struggle with reading or learning to read. Because so many students struggle with literacy, it is of great importance to provide these at-risk students with skill development using differentiated instruction to help them be successful while in school and as they continue lifelong learning. The curriculum in middle school and high school is becoming more demanding for learners. Nearly 7,000 students in the United States drop out of school daily. A lack of sufficient literacy skills is most likely the reason for students to drop out because they are not achieving success at higher educational levels.

The changing pace of today's society ensures the need for educational institutions to improve literacy instructional practices and to put things into place that will increase and enhance literacy skills for students. Therefore, "differentiated instruction" is essential to assist these students with their learning deficits or differences in order to help them be successful in school and throughout life (Biancarosa & Snow, 2004).

A Nation at Risk (U.S. National Commission on Excellence in Education, 1983) noted that the single most significant factor impacting a child's beginning education was exposure to books, being read to, and reading before they enter into school. Further, it is essential for students to make progress early in elementary school for them to attain significant achievement in their reading knowledge (Hirsch, 2006, p. 11).

The capability to read well is crucial for academic and economic achievement. The early elementary grades are critical in a child's education (Vaughn & Liana-Thompson, 2004, p. 133). There is a strong correlation between reading and the ability to learn in all content area subjects (Hirsch, 2006, p. 21).

Schmitt and Gregory (2005) reported that is it extremely important to early literacy teachers, parents, and policymakers that students acquire the ability to read and write early in their education. The report also stated that it is difficult for children who are behind to catch up to their peers without intervention. These underachieving and learning-different students are often low achieving academically overall.

Without intervention established for at-risk students, the likelihood of future success for these low-achieving students is grim. In addition, most at-risk students receiving additional effective reading interventions can avoid further reading problems. Further, any additional reading problems may be prevented (Schmitt & Gregory, 2005).

Reading comprehension scores for students are consistently related to their

achievement with their academic grades and later their financial attainment. A child's reading ability is a dependable indicator of academic performance in their junior year of high school. A large number of elementary students are not achieving reading proficiency which is putting them at risk for failure later in their educational careers (Hirsch, 2006, pp. 2-3).

When students fall between the cracks, a skill deficit is missed, or the taught skill is not attained. The lack of those certain reading skills seriously impede the progress for those students in later elementary, middle, and high school education and for their chances of success after formal education has been completed. If these deficits are not caught early, it could be seriously detrimental to a student. By the time they reach the fourth grade, it is often too late or extremely difficult to correct the reading deficits (Hirsch, 2006, p. 11).

Policy and Program Studies Service (PPSS) released a report stating that it is apparent that schools with lower poverty levels are lower performing schools. No Child Left Behind and Title I speak to these concerns (U.S. Department of Education, n.d.).

A study of academic performance and poverty provided the following information. When compared to all public schools in the 2000-2001 school year, data revealed that Title I schools have a larger number of students living in poverty than those in non-Title I schools. The Title I schools also served a larger percentage of minority students, LEP students, migrant students, and Native American students (U.S. Department of Education, n.d.).

Schools receiving Title I funds with the highest level of poverty had greater challenges. Some of the challenges these schools faced were high teacher turnover rates and teachers with little experience. These circumstances of high poverty, high teacher

turnover, and inexperienced teachers often contributed to the amount of unprepared students who progressed to the next grade level. In addition, these higher poverty students also tend to have a greater number of parents who are not active in the student's education and have no direct relationship with the school (U.S. Department of Education, n.d.).

It is important to note that childhood illiteracy directly relates to and impacts adult illiteracy (Simon, 2011). According to uliveandlearn.com, the ability to read has a tremendous bearing on a person's life; however, this reading ability also plays a large role in determining the effectiveness and competitiveness of a country. The literacy rate of Americans overall is comparable to that of other industrialized nations; however, the number of American adults who place into the lower level of literacy is larger than comparable nations. A 2001 article written by Paul E. Barton of the Educational Testing Service noted that the economic growth and being a competitive nation were impaired due to low-level literacy (Barton, 2001). There are overwhelming social repercussions because of illiteracy and low-literacy levels. A strong correlation exists between low-literacy levels and crime, poverty, and unemployment. Individuals with the lowest literacy skills make up about 43% of those who live in poverty.

The website uliveandlearn.com acknowledged that in 1998, almost four in 10 students in the fourth grade did not reach partial proficiency of the skills needed for reading success in the United States. The website also stated that according to the U.S. Department of Education's Center for Education Statistics from 1999, in schools with the highest levels of poverty, around seven in 10 fourth-grade students could not read at the basic level.

There is evidence to show that students who are not proficient readers by the time

they are in third grade often do not reach grade level, are behind their peers, are at high risk for dropping out of school, and become associated with drug use or spend time imprisoned. Arizona uses the number of proficient readers in fourth grade and factors it into preparation for the amount of beds the state will potentially need for prison facilities. The National Institute for Literacy claimed a strong relation between low-literacy level and crime. It is typical that inmates have insufficiencies in their reading skills. According to the National Institute for Literacy, 70% of inmates place within the two lower levels of reading proficiencies, and 85% of juveniles who have gone through the court system are said to be functionally illiterate (Ellis, 2011).

The National Adult Literacy Survey indicated in 1993 that if children do not possess some rudimentary literacy knowledge when they enter school, their likelihood for becoming a dropout increases by three to four times. This same survey documented that parents with lower level literacy skills did not have access to the information that would help them to become better parents because of those lower reading skills (National Adult Literacy Survey, 2008).

University of Richmond (2003) estimated that of the crimes that take place in the United States, 75% of those are committed by individuals who are school dropouts. In addition, the chances of dropouts receiving public assistance are higher than those with a high school diploma. Two hundred billion dollars is the financial impact that these individuals cost society (University of Richmond, 2003). School dropouts cost taxpayers a significant amount of money due to crimes and the need for financial living assistance. In addition to those costs, dropouts are more likely to have more health problems than a person who has completed high school (University of Richmond, 2003).

The makeup of prisoners reading at the lowest literacy level is between 31% and

40%. Approximately 5% of incarcerated individuals read at the two highest literacy levels. Adults who do not possess the ability to read often struggle to function in society, which increases the likelihood of being imprisoned and dependent on government assistance (Simon, 2011).

Data from corrective institutions show evidence that an inmate receiving no literacy instruction or assistance while in custody is 70% more likely to repeat criminal activity and return to jail. However, if an inmate does receive literacy instruction or assistance while incarcerated, they only are 16% more likely to return to criminal activity that would lead to more arrests and time spent behind bars (Ellis, 2011).

Literacy levels are not only associated with large detention numbers; low literacy levels also have a correlation with unemployment. Reading below the level of fifth grade compromises a person's ability to obtain a job earning enough money to afford the basic cost of living. It is noted that the percentage of adults in the United States who read at this level is more than 20%. Shutay, Piebanski, and McCafferty, quoted in Ellis (2011), documented that having a high school education or higher can increase a person's opportunities of having the skills necessary to obtain and maintain a job and, as a positive outcome, establish him/her as a productive member of society.

The Program for the International Assessment of Adult Competencies (PIAAC, n.d.) completed a survey of 5,000 adults aged 16-65 in 2011-2012 in the United States as well as 23 other counties. The survey looked at literacy, numeracy, and problem-solving skills in technology-rich societies. The survey is called the Survey of Adult Skills. The results of the survey were shared in March 2013. PIAAC (n.d.) defined literacy as "understanding, evaluating, using and engaging with written text to participate in society, to achieve one's goals, and to develop one's knowledge and potential."

On average, from the Survey of Adult skills in all of the countries surveyed, the higher the literacy level, the higher the average income. Those with lower literacy levels had income much lower due to their literacy and skill deficits. For individuals with reduced literacy skills, chances doubled for being unemployed. Economic global competiveness is at risk when a country has a large percentage of adults with lower skill levels which increase their likelihood of becoming dependent on other countries. The study further determined that men and women had similar proficiency levels in literacy (PIACC, n.d.).

The United States' average literacy ranking is 16 of 24 countries based on the results from the PIAAC (n.d.) survey. America's average literacy score was 270 of a possible 500. The percentage of adults in the United States performing at the highest proficiency level was 12% (PIAAC, n.d.).

The variance in literacy proficiency among Americans with the highest and lowest educational levels was greater than those of the other 23 countries. The number of Black and Hispanic Americans who scored at the highest literacy level was lower than White adults. Americans with poor literacy skills are more apt than high-literacy Americans to be uninvolved in political engagement and understanding and advocating their cause (PIAAC, n.d.). Twenty-two million people are added each year to the population of adult illiteracy in the United States, according to the U.S. Department of Education.

Lower education and employment rates are an effect of wide-ranging illiteracy; however, literacy skills are also associated with increased crime and incarceration and high social and financial costs. In today's society, it is expected that adults are able to read and to comprehend simple text. Further, they are expected to be able to function in

the workplace, pay bills, understand fiscal and legal documents, and utilize technology. The literacy skill set expectation is even higher if one wants to pursue postsecondary education (Simon, 2011).

The ProLiteracy website cites a journal published by the National Literacy Trust called *Literacy Changes Lives* which communicated just how essential literacy is to a person's life. The data show that there is a social impact on an individual with lower literacy levels. Some of the data compared quality of social life. Of the individuals with higher level literacy skills, 30% of men lead self-contained, independent lives, while 9% still live with their parents. Of those men with lower level literacy skills, 43% live alone and 22% live with their parents. Individuals with higher level literacy were more satisfied with their lives. The journal stated that around half of the individuals with lower level reading skills were less than happy with their lives and more likely to not set goals for themselves. A child living in a home with at least one illiterate parent is twice as likely to be illiterate as well (PIAAC, n.d.).

Literacy has had an impact on society for years. The 1990 U.S. Census estimated that 20% of adults in America did not have a high school diploma. In 1993, laborers lacking a high school diploma had a monthly income of around $452; however, workers with a college degree could earn approximately $1,829. Forty percent of job applicants tested in 1992 for basic skills in reading and math lacked proficient skills essential for the jobs they sought. In addition, half of the manufacturing companies surveyed noted that more than half of their front line employees had detrimental literacy issues (National Adult Literacy Survey, 2008). Information from the National Institute for Literacy indicated that 43% of people who live in poverty have the lowest literacy skills; 17% are on government assistance with food stamps; and 70% have no job at all or only have a

part-time position.

       Low literacy has a negative impact on the economy by curbing product demand and impeding job creation. More often than not, Americans who require basic literacy guidance often need assistance with financial literacy skills as well. These individuals typically struggle with budgeting and handling tasks associated with life necessities, such as understanding mortgages and legal and medical documents. This often means they become victims of greedy lenders and financial scams (PIAAC, n.d.).

       Functionally illiterate people happen to be twice as prone to be unemployed, increasing the rate of unemployment even higher in the United States. While countless people with low literacy skills want to be able to compete in the current job market, due to their lack of skills and training, they are not marketable (PIAAC, n.d.).

       Citizens are more than four times as likely to have poor health if they have low literacy skills. Literacy skills are greatly connected to socioeconomic status in the United States. The highest levels of income inequality and literacy skills inequality exist in the United States. Of the 23 countries in the study, Americans who have a high school diploma or less, on average, scored lower in literacy. Individuals who derive from low educated families are at a greater risk for having low literacy skills (PIAAC, n.d.). Hospitalization chances increase by 50% for a person with low literacy skills. Literacy levels in the United States impact health care costs. For individuals with lower levels of literacy, this could literally mean the difference between life and death. According to the Center for Healthcare Strategies, around 50% of American adults have trouble understanding and executing the documented medical task or information. This deficiency of comprehension could hinder their capability to make correct health choices and increases the chances that they will encounter greater health costs (PIAAC, n.d.).

In today's technology-centered domain, basic literacy skills are not sufficient. At least 10% of all adults in the world lack the most elementary computer skills. If adults are going to apply for a job online, search for medical information, or do basic tasks such as sending an e-mail, they need computer skills and access to technology to be successful in today's technology culture. Twenty percent of American adults cannot use or access the internet. It is also noted that individuals without a high school education are associated with those even less likely to be able to obtain internet access. Many people of poverty and low literacy are unable to obtain the opportunities that are available in today's society in regards to technology. Households earning under $30,000 a year are least likely to have access to the internet or even understand how to use devices with technology (PIAAC, n.d.).

Currently in the United States, 36 million adults are unable to read at a third-grade reading level. Possibly, the disadvantaged are unable to attain basic reading, writing, math, and computer skills. American citizens are struggling to obtain employment, maintain personal health, and sustain finances for their families. Due to financial and resource deficiencies, of the 36 million American adults who need literacy help, nearly 3 million of them will be fortunate to receive literacy assistance (PIAAC, n.d.). Although the quantity of people pursuing assistance continues to grow, a majority of the funding for literacy programs has declined. Unfortunately, when all of the resources are combined, there are only sufficient resources to assist 3 million people (PIAAC, n.d.).

The Education Portal website reported research from the International Adult Literacy Survey (IALS) stating that between 19% and 23% of American adults are performing at the highest levels of literacy (Simon, 2011). However, there are still many American adults who are left behind. The same survey discovered that the percentage of

American adults who were performing at the lowest level of literacy was between 21% and 24%. The National Adult Literacy Survey concurred on this data. Adults at the lowest levels of literacy, on average, earn around $230 weekly, work only 18 or 19 weeks yearly, are three times more apt to receive food stamps, and are 10 times more prone to live under the poverty line (Simon, 2011).

In order to produce a more literate society, it is essential for adult learners to be involved in the fight for change so they can be advocates for sounder educational programs and more enhanced government funding. A decrease of $6 million in funding for adult literacy happened in 2011 (PIAAC, n.d.).

Deficiencies in the Evidence

An area of need to relate to early literacy RTI and inclusion is more specifics on implementation, outcome, Title I inclusion, and staff readiness. Also, there is very little literature of comparative class sizes to go along with this study. Many of the studies are conducted on a much larger scale, district or state, and none solely at one location.

Audience

The audience for this dissertation is anyone who is interested in the effect that small class size, small group instruction, Title I inclusion, and early intervention have on increasing the literacy skill set of early elementary school students. The information included in this study could benefit those who desire to improve instruction for struggling early readers.

Purpose of the Study

The purpose of this study was to look at the impact of reading interventions in early elementary school grade levels. The study examined what academic impact can be made on low performing early elementary school students with intensive reading

interventions in a daily small classroom setting and to help prevent further reading

difficulties later in students' school careers.

Chapter 2: Literature Review

Introduction

Beginning in the 2012-2013 school year, the study school implemented a frontloaded class in both first and second grades. Twenty-four at-risk students were identified based on the previous year's end-of-year composite DIBELS scores. These students were placed in classrooms led by teachers who had proven themselves to be strong literacy teachers and were selected by school administration. In addition to the small class size, the students received small-group instruction from the teacher, a Title I reading specialist, and a teacher assistant.

The purpose of this study was to determine the impact of the implementation of an early reading intervention program. The case study examined what academic gains can be made with low performing, early elementary school students with intensive reading interventions and Title I inclusion in a daily small classroom setting.

"Reading is critical because a great deal of formal education depends upon being able to read with understanding. Reading difficulties will inevitably create educational difficulties, which in turn, are a major source of economic and social disadvantages" (Hulme & Snowling, 2011, p. 139). Chapter 1 shared information of results of students not being proficient readers. The review of literature focuses on information collected by three separate studies that individually researched early intervention and class size and their impact on reading proficiency.

Synthesis of Findings

The first study, *A Small Group Model for Early Intervention in Literacy; Group Size and Program Effects* by Homan, King and Hogarty (2001), compared the outcomes of a one-to-one model with that of a small group model for low-performing first-grade

students in literacy. The authors examined groups of three innovations by comparing them with one-to-one early literacy interventions such as Reading Recovery and Accelerated Literacy Learning (ALL, n.d.).

The Reading Recovery program was developed by Marie Clay in 1984. Reading Recovery is designed for first-grade students struggling with reading and writing as a short-term intervention. The program calls for teachers who are specially trained to work one-on-one with students for 30-minutes daily for 12 to 20 weeks. The Reading Recovery website stated about 75% of the lowest performing students attained grade-level proficiency after receiving the complete series of lessons (readingrecovery.org). The one-to-one intervention model became a popular literacy model due to the Reading Recovery program (Homan et al., 2001).

According to its website, ALL (n.d.) is a business owned by Susan Radley Brown. The ALL program provides a balanced literacy reading and writing curriculum to strengthen instructional practice and leadership. ALL uses a content-based coaching model. ALL provides K-12 reading and writing units. It also provides teacher training to assist teachers in fully understanding the program and how to implement it to meet student needs (www.acceleratedliteracylearning.com).

Although school districts are satisfied with the outcome of a one-to-one program, funding the cost of the program and personnel needed to meet student needs is not feasible. Schools with the highest socioeconomic status populations are of the greatest need and only having a couple of trained reading interventions would not meet the needs of all of their students. This funding challenge has required district- and school-level decision makers to look into the expenses versus the paybacks of a one-to-one program (Homan et al., 2001).

Homan et al. (2001) referred to a study by noting achievement with groups of three in the mid-1990s. The teachers in Hiebert's study, reported by Homan et al., looked at group size as a variable. The teachers worked with student groups of six or seven prior to training for the intervention program. When those teachers implemented the new program with large student groups, they determined it was not efficacious. Consequently, the teachers dropped the size of the groups to three students, and they experienced greater success. The large group size made it too difficult for the teachers to provide specific feedback in a timely manner and lessened student involvement. An appropriate arrangement for early intervention in literacy appears to be a smaller group of three students (Homan et al., 2001).

The change in early literacy group sizes from one to three students called for adjustments in the ALL program. Teachers used various data to place students in groups. However, the low-performing first graders reading achievement remained unique to the individual student, even when students were at the same reading level. The most challenging facet of the small group work was the differentiations in reader skill sets (Homan et al., 2001).

Recommendations provided by Clay for the Reading Recovery Program served as the configuration for ALL lessons. Homan et al. (2001) followed the descriptions of the ALL lesson parts as it was originally implemented in the one-to-one model, with variations that resulted from their small group innovations.

The initial 10-minute lesson consisted of familiar reading and Running Record. In familiar reading, to increase reading fluency, construct comprehension, and increase a reader's confidence, they would begin with a simple and familiar book to read. Alternative instructional strategies such as choral reading and echo reading were

achievable with a group of three. Choral reading was simultaneous reading of a familiar book by all three students. In echo reading, readers repeated what the previous reader read. This forms a model for less successful readers. Two of three students reading together (buddy reading) while the teacher worked with the third child could be done during familiar reading. ALL teachers could concentrate on an individual, while using a variety of techniques (Homan et al., 2001).

In the nature of making adjustments to programs, there were challenges. Homan et al. (2001) suggested choral reading should be inclusive; however, it may be more difficult for the teacher to observe each separate reader. Having students take turns reading can allow ALL teachers to monitor individuals; however, this could interrupt the reading experience for the students. Teaching points usually occur after a segment of reading based on the teacher's observations of oral reading performances. If a teacher focuses on the behavior of an individual student, it can be seen as disrupting the other readers who may not need teacher feedback at that time. However, in some cases, the feedback for one student could be valuable to the other children in the group.

Teachers document the oral reading behaviors of an individual student to know the reader's strategy use and to prepare lesson plans using Running Records. The teacher observes and records behaviors such as substitutions, self-corrections, omissions, and insertions as the student is reading. The teacher evaluates the data after the lesson, making conclusions as to the child's use of cues and theorizing about the student's usage of strategies. Running record is one-to-one work. While conducting a running record, it is necessary to concentrate attention on the individual student to accurately collect data. It was typical that most ALL teachers were not able to manage two running records during each lesson, thus teachers created a cycle through which to collect data efficiently

for each student in the group. A teacher could be sufficiently informed on the growth of each of the readers with a running record for 2 of 3 days for each student (Homan et al., 2001).

The second 10-minute segment is focused on writing. Students are taught, through the writing element, to slow down the reading process to receive the sounds in the words they know already. Consequently, writing is effectively used with reading instruction. By constructing a sentence, the student can transfer what they know about language to paper. This helps students learn and improve their phonemic awareness (Homan et al., 2001).

In groups of three, some ALL teachers were able to assist in each student writing his/her own sentence. The teacher's attention seemed focused on task completion. Unmonitored mistakes were more likely to happen with group instruction, but the authors argue that through semi-guided practice and modeling, shared writing in small groups is achievable and beneficial. Writing a group sentence provided social interaction and opportunities for conversation in an actual literacy setting (Homan et al., 2001).

The next step is to introduce a new book. There are two reasons for introducing a new book. First, it offers some awareness of a text that will be used the following day for a running record data collection. Second, introduction of the new book delivers a beneficial chance to teach and provide a framework for problem-solving strategies with a new text (Homan et al., 2001).

In a small group setting, it is easily manageable to introduce new books by having discussions of background knowledge connected to the story content and introducing stories by taking picture walks. In addition to awareness of the story content and structure, new book introductions are beneficial for learning to use developing strategies.

In a small group setting of three students, teachers have used one book for the first presentation and picture walk. Teachers have conducted group book introductions by distributing multiple copies of the book to students. Teachers should consider their lesson focused when determining how to introduce a new text. During the book introduction, it is important the ALL teacher creates chances to hear each student reading. Since the focus is on strategy achievement, ALL teachers should create reading times where the students do the noticeable reading work. Unlike with Running Records, the group remains together for the new book. Any discussions that occur during new book introduction should be focused on the content and the strategy opportunities for the specific book (Homan et al., 2001).

Homan et al. (2001) expected the lessons for a group of three to take longer than the lessons for one reader. In efforts to follow the guidelines of Clay as closely as possible, the authors instructed the ALL teachers to use a 30-minute timeframe. Three benefits were noticed of teachers having time limitations. By laying out time constraints, the researchers caused the teachers to use their time more efficiently. Therefore, teachers made more strategy-based instructional decisions. Second, students were engaged and on-task because of an effective lesson pace. Downtime was seen as unproductive; therefore, teachers learned to multi-task with the ALL program lessons to increase student involvement. Third, having a 30-minute lesson time provided more time in the schedule to offer reading instruction to other at-risk students (Homan et al., 2001).

Another difficulty with working in small groups of three was that students progressed at different rates. Teacher frustration arose with what best to do with a child who was not at the same place as the other two in the group. The researchers recapped the training with ALL teachers that centers on accelerating readers' independent use of

strategies. Thus, books, regardless of level, could be contexts for acquiring and practicing strategies. Teachers could constructively resolve problems or concerns that came up with a small group while using the ALL model. Teachers benefited from thinking through their decisions and from having discussions with peers about options. In some cases, it was necessary to move a student from a group. For this reason, the researchers recommend time be made available for students who need one-to-one instruction (Homan et al., 2001).

The method used to conclude the outcome of ALL on reading success involved comparison of data from three groups. One group included students who received at least 40 lessons or who became proficient readers. The second group included students who were considered average by their teacher and assessment data yielded average results. The third group included students who needed the program but were not able to be served and became a comparison or control group. For this comparison of individual and small groups, the researchers integrated data from 24 school locations that signify an array of SES levels in the district (Homan et al., 2001).

As part of the assessment process in ALL, seven assessments were administered separately.

1. Concepts About Print Test (CAP) assessment measures knowledge of print concepts and book orientation, the maximum score of 24 points.

2. Letter Identification measures knowledge of the upper and lower case letters of the alphabet, with a maximum score of 54 points.

3. Dictation Test assesses phonemic awareness. Students are assessed on their ability to construct a sentence as it is verbalized, with a maximum score of 37 points.

4. Writing Vocabulary Test requires a student to write down all the words they know within a set amount of time. Students earn one point for each word spelled and acknowledged correctly.

5. Word Test is a list of 15 first-grade level words from a basal text. The maximum score is 15.

6. Phonemic Segmentation and Blending Test measures a student's phonemic awareness through verbal answers, with a maximum pretest score of 12 points and a maximum posttest score of 18 points.

7. Running Record is written evidence of oral reading behaviors (Homan et al., 2001).

The beginning scores of students in the ALL program were considerably lower than those of the average group; however, at the completion of the program, the ALL students achieved levels as high as, or higher than, those of the average group on the six subtests. The pretest scores of the comparison students were lower than those of the students in the ALL program. At the end of year, the same comparison students' scores were significantly lower than of the ALL students (Homan et al., 2001).

While all first graders appear to be learning the alphabet, the remaining five subtests revealed the impact of the ALL program for the at-risk children in the selected school sites. When collected data are separated for group size comparison, it establishes the close performance on the posttests between the one-to-one and the group of three. This validates the constructive results of groups of three in ALL as measured by Clay's Diagnostic Survey and Taylor's Test of Phonemic Segmentation and Blending (Homan et al., 2001).

Data collected from the ALL program show strong gains for both the one-to-one

group and group of three from the beginning of the year to the end of the year. One-to-one individual gains were +3.95 in letter identification, +6.95 for concepts about print, +9.75 in word test, +12.04 in phonemic segmentation and blending, +14.4 with dictation, and +15.9 with writing vocabulary. Gains from the groups of three were +3.81 for letter identification, +7.52 in concepts about print, +9.96 for word test, +10.68 with phonemic segmentation and blending, +17.43 in dictation, and +20.13 with writing vocabulary.

Gains were noted in the 40+ lessons group, the average group, and the control group. The largest gain from the three groups was with the groups receiving more than 40 literacy lessons in a school year. Less impressive gains were noted with the average and control groups. Overall, the one-to-one and group of three had more significant growth and scored closer to the maximum scores at the end of the year.

Clay's Running Record procedures were used to measure reading levels for students in the ALL program. Assessors used a set of books with increasing difficulty from which students read aloud. Teachers took scripted records of students' oral readings and then calculated for accuracy rates (Homan et al., 2001).

The goal of the ALL program was to guide at-risk reading students to be equal to those students who are considered average. The positive ALL program effects were evident by a comparison of the ALL students' end-of-year reading level reaching the average range. All students began as nonreaders at level 0. At the end of the year, on average, students in the ALL program involved in the one-to-one instruction were reading at level 24. Students receiving instruction in groups of three ended the year reading at level 20. Levels 20 and 24 signify second-grade reading competence, with both levels applying to average students. The comparison group ended the year at level 5 (Homan et al., 2001).

The pervasive scores were an indication of the effectiveness of the ALL program. The success of the students and teachers in the small group supports the sustained use and study of this model for early intervention. Homan et al. (2001) referred to work from Pinnell, Lyons, De Ford, Bryk, and Seltzer (1994) who suggested that adjustment to group instruction also requires the teachers to adjust instructional procedures and to develop new methods based on what is aligned with the theoretical base established during their program training.

The group of researchers concurred with Pinnell et al. (1994) after studying small group instruction for 2 years. They added that the responses from students to these modifications should play a part of the decision making for the teachers (Homan et al., 2001).

It is important when using a program like ALL or Reading Recovery that teachers conduct weekly discussions about resources and student participation as taught in their training. With proper planning and discussion, teachers end up becoming more productive with their use of instructional time and limit the amount of time wasted on noninstructional tasks. This purposeful planning allows the lesson to provide more time for reading and writing (Homan et al., 2001).

Although one-to-one lessons are the ideal intervention plans for both children and teachers, it is important for schools to meet the needs of a large number of struggling readers. Results with the small group model for ALL validate the sustained study of small groups for early literacy intervention. Offering both models, one-to-one and small group, is suggested. Some children will only gain proficiency in a one-to-one setting (Homan et al., 2001).

Being a proficient reader can transform the life of a child. Reading specialists,

teachers, and researchers should continue to investigate approaches to increase opportunities for every child in need. The numbers support increasing teacher training to include learning how to increase the literacy growth of low-performing first graders in a small group context (Homan et al., 2001).

A second literacy study, *Effects of Small Group Reading Instruction and Curriculum Differences for Students Most at Risk in Kindergarten: Two-Year Results for Secondary and Tertiary Level Interventions* by Kamps et al. (2008) looked into reading intervention programs and response to intervention effects on struggling early readers.

Struggling readers consist of a variety of differing learning needs. They come with different skill sets, abilities, and learning styles and learn at different rates. This range of differences creates a challenge for helping all students learn in a classroom. Kamps et al. (2008) noted research from Torgesen, stating that numerous large-scale intervention studies advocate that highly rigorous methodical instruction can help to decrease the reading failure rate to around 5% within a school.

There are several areas that can contribute to reading difficulties among school children. The first area is identifying the teacher's knowledge about interventions. For teachers to be able to effectively help students with reading problems, teachers must be able to pinpoint the problem, know how to apply a variety of strategies, and use resources specific to the difficulty. Kamps et al. (2008) stated one reason students have reading delays is regular education teachers often do not have a sufficient skill set for identifying and implementing interventions within the classroom. In addition, schools frequently lack personnel needed to implement interventions for a large number of students (Kamps et al., 2008).

A second issue contributing to reading difficulties is in naming speed and

automaticity, known as the double-deficit hypothesis. This theory helps explain the long-term consequences of not intervening early on when reading problems are identified. Quickly naming colors, digits, letters, objects, and so on in kindergarten is an early indicator of potential reading skills. Learners who consistently demonstrate long-term reading difficulties typically exhibit a low skill level with naming speed of letters, syllables, and words (Kamps et al., 2008).

A third factor facing at-risk readers is insufficient reading comprehension skills. Reading comprehension is a complex skill set that is not fully understood or remediated easily. Kamps et al. (2008) cited work from Snow stating that third-grade children who read on grade level will not automatically maintain reading proficiency in comprehension as they continue through school.

Print concept, alphabet knowledge, rapid letter naming, IQ, decoding non-words, phonemic awareness, and decoding words are the greatest projecting links concerning future comprehension skills and early literacy skills according to a 2005 report from The National Early Literacy Panel. Research indicates that repeated reading and summarizing information improve comprehension results. An emphasis on teaching specific skills and monitoring continuously the skill progression that leads to reading comprehension is essential to advancing reading comprehension and decreasing low reading proficiency (Kamps et al., 2008).

A fourth factor is sequencing difficulties. Sequencing difficulties combined with recognizing patterns, themes, and predicting the story line are often issues for struggling readers. Story maps and signal words are proven beneficial when instructing learners on story patterns (Kamps et al., 2008).

Failure to comprehend the spoken language of English is a fifth factor that can

lead to reading difficulties. There are also language delays for learners with limited vocabulary and understanding of word meanings. This lack of knowledge limits their reading comprehension ability. Enhanced knowledge of words in text decreases the intensity of the text when read and allows the reader to better comprehend meaning of written text. Instruction on word concept and context provides learners with exposure to word interactions in a sentence structure and working use of word meanings. As a student's knowledge of words increases, their reading comprehension increases as well (Kamps et al., 2008).

Using evidence-based strategies for early intervention is widely endorsed; however, accomplishing interventions in classrooms and school-wide is difficult. The challenges associated with intervention are quality instruction, resources, and obtaining support for early reading intervention, especially in lower grade levels. When students experience multiple reading failures, reading interventions are typically initiated. Even though research shows evidence-based interventions can be successful for struggling readers, schools often lack adequate methods for determining reading deficiencies and lack efficiently trained staff to offer the needed interventions. Research shows that regular education teachers are sometimes hesitant or struggle to differentiate individualized instruction for students in need, especially in early elementary (Kamps et al., 2008).

Kamps et al. (2008) cited research on early literacy where a tiered model of prevention and intervention was used as a process to address implementation obstacles and strengthen instruction to meet the needs of students with growing educational needs. This precautionary model mimics a health care model of prevention that incorporates primary, secondary, and tertiary stages of intervention (Kamps et al., 2008).

The primary intervention level is most effective when the programs are implemented by the general education teachers using appropriate instruction for the majority of students with the expectation that the whole group instruction will show a reduction in the amount of students dealing with learning problems. Secondary intervention is used for students who do not respond appropriately to primary-level instruction over a certain period of time and are monitored for progress to determine the effects of the instruction. Students who are unresponsive to primary- and secondary-level interventions receive intensive intervention at the top (tertiary) level. These services typically consist of students being pulled out from the regular classroom to receive additional, need-specific instruction with a variety of teaching methods, and they are provided with continuous progress monitoring and feedback. This system, known as the response to intervention or RTI model serves as a prevention approach to work with at-risk students in early elementary hoping to prevent a later need for more intensive remediation or the expenses related with intervention programing (Kamps et al., 2008).

The Kansas Center for Early Intervention implemented an RTI model in eight schools needing intervention for early grade low-performing readers. Five schools with regular instruction and progress monitoring were used for comparison. Implementation included assessment for reading deficits and organization of the early services. Results from screening determined who received intervention and of what the intervention instruction consisted. Initial outcomes and previous research together revealed improvements in early literacy abilities for students receiving secondary and tertiary interventions concentrating on specific instruction using highly coordinated, sequenced curriculum in small groupings (Kamps et al., 2008).

The rationale for the study was to determine the outcome of early literacy

intervention in beginning school grades when using a three-tier RTI model and to explore curriculum intervention influences for identified at-risk students in their kindergarten year. Therefore, the purpose was to assess a variety of intervention types rather than to study the three-tier model. Hypotheses of the research were that students receiving intensive level direct instruction in tier two or tier three would display considerably more advances measured by the DIBELS over a period of time than students receiving no additional program or support. Students receiving intensive level direct instruction in tier two or tier three would advance at a quicker pace than students receiving less specific curriculum. A higher proportion of students receiving intensive level direct instruction are expected to accomplish benchmark levels on the DIBELS and Woodcock Reading Mastery assessments, performing higher than students in less structured intervention programs. Direct instruction interventions were for secondary- and tertiary-level interventions in schools employing the three-tier model. Curriculum that was of lesser structure was used in primary- and secondary-level interventions, for schools not using a three-tiered or RTI model, and with differences in instructional method and sizes of students in groups (Kamps et al., 2008).

Participants were chosen from a large longitudinal report researching the impact of a whole school intervention program in reading and behavior using a three-tier model. Eight experimental and five comparison schools were involved in the larger study, and culturally and economically diverse student groups were represented. Students in the smaller study were screened in kindergarten at the middle of the year and were considered to be at risk for reading failure due to their results on administered DIBELS assessments. To be included in the study, students had to have less than eight sounds on nonsense word fluency (NWF) and less than nine on the initial sound fluency (ISF) based

on the DIBELS scoring program. In the review, 116 students were tested and considered to be at high risk for needing intervention, which represented about 5% of the learners in the larger analysis. Of those students, 106 participated in the study through the completion of first grade and 83 to the end of their second-grade year (Kamps et al., 2008).

The final number of students was 83. Of that number, there were 44 males in the participant group and 39 females. Features of the groups were 59 English-speaking students and English as a second language consisted of 24 students; 51 White students, 23 Hispanic, five African American, and four other minority groups. About half of the participants were of low socioeconomic status. The other half was from middle socioeconomic families. These selected students came from 11 elementary schools with comparable demographics found in the larger report. Two schools from the study did not have any students who met the qualifications for the study (Kamps et al., 2008).

DIBELS operated as a principal form of assessment for the study. DIBELS maintains two purposes: to identify students who are not attaining the skills necessary for learning how to read and to progress, monitor, and obtain data to determine the impact of reading interventions/curriculum. The developers of DIBELS have used data from the DIBELS program to set benchmark scores to indicate an adequate level of advancement (Kamps et al., 2008).

After students were assessed, teachers determined which students needed differentiated instruction to support them and help them reach their grade-level benchmark. Scoring on benchmark is an indication that the student is on track to reach proficiency at grade level in a skill; strategic risk status means the learner is losing ground and requires added instruction to meet the benchmark goal; and intensive risk

means the learner is distant behind anticipated performance and requires ongoing small-group remedial teaching to reach the benchmark level. Two subtests were used in the study: NWF is given to kindergarten students and first-grade students and assessed five different times, and oral reading fluency (ORF) is given to students during their first- and second-grade years and is also done five times (Kamps et al., 2008).

A norm-referenced reading evaluation normally used for research studies, the Woodcock Reading Mastery Test-Revised (WRMT-R), was used in addition to DIBELS to measure student performance. Data were collected using the WRMT-R from 6,089 students in 60 U.S. communities of geographical diversity. Word Attack, Word Identification, and Passage Comprehension subtests were used in this study. The WRMT-R was given to a portion of students in the sample. Seventy-five percent of the participants were administered the assessment: 86 first-grade students were administered the assessment and a total of 62 at the completion of second grade (Kamps et al., 2008).

Reading fidelity measures were collected across curricula for every reading instructor. Fidelity ratings entailed specifications with questions concerning use of methods as defined in the curriculum guide; instructional features such as modeling, error correction, guided feedback, and appropriate pacing; instruction of key early literacy skills within lessons; and management features such as use of appropriate praise-to-reprimand ratios, smooth transitions between tasks, and effective management of disruptive behaviors. A scoring system of yes or no was used for fidelity checks. The instrument consisted of 20-24 items. Each item could receive a rating of 0, 1, or 2 (Kamps et al., 2008).

Fidelity rates in first grade and second grade within the groups of basic curriculum varied from 65% to 96%. For the Direct Instruction curriculum groups, the

average fidelity rating was 96%, Programmed Reading average fidelity was 93%, Open Court average fidelity was 76%, and Guided Reading was 65% (Kamps et al., 2008). Schools were assigned to the experimental groups randomly. As mentioned earlier, the three-tier model for reading and behavior (RTI) was the type of intervention used in the larger study. Students in this study participated in the group through kindergarten, first grade, and second grade; while small group reading interventions took place during their first- and second-grade years. The students identified as needing intensive-level interventions participated in one of four curriculum types, which were determined by their school (Kamps et al., 2008).

In the experimental schools in the study, instructional methods for the intensive level learners involved the use of small group instruction with three to six students to sustain low student-to-teacher ratios. These methods were combined with precise phonemic awareness and phonics-based teaching. In the experimental schools, interventions were used as a part of an RTI model, with placement decisions based on student performance on DIBELS assessment taken at three times during each year. Reading Mastery, Early Interventions in Reading, and Read Well were the chosen curriculum programming in the experimental schools. Reading Mastery and Early Interventions in Reading curriculum are referred to as integrated curriculum that use direct instructional approaches, scripted lessons, teacher modeling, various activities with frequent practice to instruct and strengthen new skills, and mastery knowledge. Read Well, using a mastery learning model, is mostly teacher directed without instructor scripts for leading lessons. Each of the three curriculum programs were considered very detailed in their instruction, and data were collectively analyzed. These highly directed programs, referred to as Direct Instruction programs, had 39 student participants. Nine students

from one school received intervention using Programmed Reading, a highly controlled

and successional curriculum. Intensive-level students in the comparison schools included

the use of small group instruction for three to 12 students with phonemic awareness

activities, fewer opportunities for use of phonics instruction, and less controlled classes

for intervention. Comparison schools did not use the RTI model; however, students

receiving interventions were placed in intervention groups based on teacher

recommendation due to their performance (Kamps et al., 2008).

Combining with additional systematic phonics, the Open Court curriculum was

used in student groups of three to 10 for 10 students in two comparison schools. A total

of 25 students in the study in the remaining two comparison schools received the Guided

Reading curriculum. Using small groups, students read literature on their instructional

level in the Guided Reading program. The reading texts were leveled in regards to

sentence length, difficulty, and elements like repeatable phrasing. Text vocabulary

encompassed numerous high-frequency words and was typically not controlled or

decodable. Phonemic awareness and phonics teaching was offered when teachable

moments were present. The concentration was on learners rereading leveled books and

addressing certain skills when needed. Guided Reading took place in large groups

consisting of 10-12 students and entailed some common qualities like word study, group

story reading, and writing activities. In addition to the curriculum, two students were

concluded to need tier three level services early on. These students took part in the

Language Arts Multi-sensory Program (LAMP) in second grade after having Direct

Instruction within small groups in first grade. LAMP is a multisensory

phonetic/linguistic method program for reading, spelling, grammar, and innovative

writing constructed on mastery acquisition for students identified with severe literacy

challenges. This is considered to be a Direct Instruction approach literacy curriculum. Phonemic awareness abilities are stressed to intensify oral/written language relationship. New information is introduced in small parts in each lesson. Ideas are repetitively examined in varying settings and modalities to reinforce the brain's pathways in accumulating and remembering information, therefore enhancing mastery. LAMP incorporates a broad use of manipulative objects and grouping activities. A 40-minute daily lesson typically consists of the following instructional sections: alphabet knowledge followed by 5 minutes for practice, reviewing key word/spelling/sight word decks from earlier new learning for 5 minutes, 10 minutes of new learning/multisensory activities, text reading for 10 minutes, followed by spelling and transcription for 5 minutes, and a 5-minute closing with review and listening. The amount of intervention differed through the study. The complete amount of time each student received of intervention beginning in kindergarten and going through second grade was added and averaged by curriculum. Each student who received small-group intervention using the Direct Instruction averaged 8,840 minutes; 12 of those students began intervention services in kindergarten and the bulk of groups happening in first and second grades. Students in small groups receiving The Programmed Reading averaged 7,356 minutes per individual, with some getting interventions in kindergarten, but the vast majority of the group received interventions in first and second grades. The majority of intervention for students getting The Open Court program were served in first and second grades and averaged 7,205 minutes per student in their small groups. Reading intervention students enrolled in The Guided Reading group averaged 9,079 minutes, with 10 students getting small groups intervention and the others getting intervention in groups of 10-12 students. All of these interventions took place during first and second grades. The learner in the

LAMP intervention program received a total of 8,400 and 6,450 minutes in first grade with Direct Instruction and second grade with LAMP (Kamps et al., 2008).

Overall curriculum outcomes for NWF and ORF results advised differences in student results centered on the different curriculum used. For NWF, advances from the first assessment at the halfway point of kindergarten to the conclusion of the first-grade year were greatest for learners in the Direct Instruction group, with increases from 1.4 sounds per minutes to achievement of 53.3 sounds per minute, next the Open Court group with increased gains from 1.5 sounds per minute to 42.2 sounds per minute, lesser gains for the Programmed Reading students were made. Students progressed from 1.2 sounds per minute to 29.1 sounds per minute and the Guided Reading students 0.8 sounds per minute to 24.9 sounds per minute. NWF benchmark is 50 sounds per minute at the middle point of first grade. ORF exhibited important gains as well for three of the curriculum programs. Direct Instruction data from the middle of first grade to the end of second grade showed increases from 15.8 words per minute to 74.3 words per minute; in Programmed Reading, the data improved from 9.2 words per minute to 76.6 words per minute; and for Open Court, numbers increased from 24.9 words per minute to 72.2 words per minute. Smaller gains were demonstrated with the Guided Reading group for ORF, with gains only going from 7.1 words per minute to 52.0. ORF end of year for second grade benchmark is set at 90 words per minute. ANOVA recurring measures exposed significant variances across curriculum in NWF and ORF to be of significance (Kamps et al., 2008).

As discussed earlier, the Direct Instruction and Open Court groupings showed greater advances overall for NWF than the Programmed Reading and Guided Reading student groups. The Guided Reading group was outperformed in oral reading by the

Direct Instruction, Open Court, and Programmed Reading groups (Kamps et al., 2008).

The slope was constructed based on DIBELS data and calculated by averaging the increases for each assessment period that was conducted three times a year. Important outcomes were found between the group for curriculum in Direct Instruction and the other curriculum for NWF and among ORF with Direct Instruction and Guided Reading. The increase of growth per assessment period, for about every 8 weeks, was Direct Instruction for NWF 18.7, 12 for Open Court, Programmed Reading was 8.3, and Guided Reading was 4.6. The benchmark per assessment period is 13 sounds. This would be typical for an average advancing first-grade reader. The mean slope with the largest growth for ORF was Programmed Reading with a mean of 17.5, followed by Direct Instruction with a mean of 14.4, then Open Court with a mean of 13.6, and ending on a lower average slope was the Guided Reading group with a mean of 9.9 (Kamps et al., 2008).

Two students were enrolled in the LAMP program in the most intensive level of curriculum intervention. The data provided evidence of growth for these students. The first student reached benchmark for NWF by the end of first grade and achieved grade-appropriate benchmarks in ORF at the end of first grade and second grade. The second student was slightly under benchmark for NWF ending first grade. ORF was at benchmark, 99 and 91 words per minute, correspondingly, at the end of second grade for both students who received LAMP instruction (Kamps et al., 2008).

Comparable to DIBELS data, pupils in the Direct Instruction group scored considerably higher on the WRMT-R assessments than pupils enrolled in the Guided Reading group throughout all four areas in first and second grades. The mean standard score for Word Attack for Direct Instruction for first-grade students was 110.2, as

compared to the Guided Reading group with 87.7; the mean standard scores were 104.0 and 85.3 for first-grade Word ID; for second grade Word ID, the mean standard scores were 103.5 and 83.8, correspondingly; and for Passage Comprehension for second grade, the mean standard scores were 98.7 and 80.2. Students' grade-based standard score means for Open Court were 101 to 102 for first-grade subtests; standard score means ranged from 95 to 102 for Programmed Reading grade based in first- and second-grade subtests (Kamps et al., 2008).

The study also examined individual scores to establish the percentage of students performing at benchmark by curriculum, in addition to mean statistics for DIBELS and WRMT-R. The Direct Instruction group had 48% of students performing at the benchmark of 50 or more words for NWF, and 40% of the Open Court group was at benchmark at the end of first grade. No students in the Programmed Reading and Guided Reading groups reached benchmark for this assessment. For ORF end of second grade, 41% of the Direct Instruction group, 33% of the Programmed Reading, 50% of the Open Court, and 19% of the Guided Reading group had scored at benchmark. As discussed earlier, mean scores indicated that the more structured curriculum groups were comparable in advances in oral text reading, with means from 72 to 76 words per minute, compared with Guided Reading having a mean of 52. Benchmark was outlined as a grade-level standard score of 85 or greater. All students in the Direct Instruction group had attained benchmark-level performance on all WRMT-R assessments. For Programmed Reading, 75% on first-grade Word Attack and 100% on Word ID in the second semester portion of first grade achieved benchmark, and 55% for second grade Word ID and 100% on Passage Comprehension in the second semester of the second grade year had met benchmark. For Open Court, first-grade Word Attack 86%, 71%

Word ID for first grade, 100% for second-grade Word ID, and 25% for Passage

Comprehension of students throughout subtests and grades scored at benchmark. Ranges

throughout subtests for the Guided Reading group showed that 50% to 64% of students

scored at benchmark within measures (Kamps et al., 2008).

Conclusions from the study suggest that intervention resulted in significant

improvements for participating students, and there were essential variances in the

curriculum used for tertiary-level learners. Direct Instruction and Open Court curriculum

emerged to be of more value for phonemic awareness and decoding skills. Programmed

Reading learners trailed behind in decoding as shown on the DIBELS NWF assessments;

however, they seemed to draw closer to the Direct Instruction group for ORF. The two

intensive-level learners enrolled in the LAMP program made striking gains as well on all

measures and reached benchmark on most assessments. These results sustain previous

research noting the efficacy of highly structured, precise instruction for early at-risk

readers. The advancement for these students is impressive, especially considering that

more than 50% of the students came from low socioeconomic status homes and of those,

15 of the 39 students receiving the Direct Instruction were English-language learners. By

the end of second grade, 41% of learners in the most structured program attained

benchmark levels in ORF (Kamps et al., 2008).

Overall, these results advocate that the curriculum was not the key to success.

Instead, it was the structure and detail of the teaching and activities involved that

accounted for the positive outcomes (Kamps et al., 2008).

While learners in the Guided Reading group made improvements, they were not

as sizeable as those made by students being served in a more structured program. Several

factors may have impacted the distinctions, involving less systematized methods to

phonics instruction and the tendency for reading instruction to have larger group sizes.

An important contributing factor to the success of reading interventions, as noted in

previous research, is the use of smaller group sizes. Furthermore, it was subjectively

mentioned that a considerable amount of the pullout intervention with Guided Reading

concentrated on writing and expressive language projects instead of emphasizing

instruction on necessary early literacy skills. The outcomes might have been more

prolific if groups were provided with a different format for the Guided Reading

instruction instead of using writing tasks and recurrent teaching as executed at the early

level just for extra student reading time (Kamps et al., 2008).

Advancement created on the WRMT-R specified that through the curriculum,

over half were within one standard deviation for grade-level standard scores in Word

Attack, Word ID, and Passage Comprehension. These data communicated the creditable

efforts of the educators involved in the instruction process to tackle the needs of students

at high risk of reading failure (Kamps et al., 2008).

On all WRMT-R subtests, every student in the Direct Instruction group was

within the one standard deviation score, and all Programmed Reading participants were

within this benchmark standing at the completion of second grade. The Guided Reading

group percentages varied from 55% to 64% at benchmark on this measure across subtests

(Kamps et al., 2008).

Some students in each program did not make adequate growth. Of the 32 students

in this program at the end of second grade, 39% were not proficient. It was considered

insufficient progress if the growth from the middle of first grade to the end of second

grade was less than 50 words per minute or if the ORF score at second-grade completion

was lower than 70 words per minute. This happened for eight students, 21%, in the

Direct Instruction group; five students, 50%, of the Open Court group; two students, 22%, of the Programmed Reading group; and in the Guided Reading group 17 students, 68%, were considered to have made insufficient progress. In this study group, around one-third had a learning disability, seven were English language learners (ELLs), 15 came from low socioeconomic families, and 18 were minority students (Kamps et al., 2008).

A significant discovery in the small study as well as in the larger study was that schools were able to successfully facilitate student interventions in early grades before the learning difficulties became detrimental to students causing them to fall behind in reading and have increased risks of catching up to grade-level peers. The conclusions coincided with previous outcomes from research documenting that the capability of schools to apply intervention programs in a timely manner for all at-risk students with reading problems greatly relies on the success of their application of the RTI model and the school's capability to uphold staff execution of evidenced-based practices. Factors that seemed to increase program execution efforts involved early screening and identifying at-risk students to meet the three-tiered model requirements; innovative and adaptable scheduling to allow for adequate time for small group instruction; instruction taught by a strong collection of early elementary teachers involving special area teachers and general education teachers to combine resources to the intervention groups; access to systematic curriculum, very detailed instruction in early literacy skills; and procedures for using data to progress, monitor, and make intervention placements and decisions based on the data (Kamps et al., 2008).

Outcomes suggest ongoing support for implementation of the RTI model focusing on early interventions to help at-risk students to achieve grade-level benchmarks, to avoid

accelerating and irreparable reading disabilities, and to identify students needing intensive intervention. In addition, these conclusions and previous research recommend attentiveness to Tier 1 levels of support and differentiation of instructional provisions like group sizes and selection of curriculum in addition to responsiveness to Tier 2 interventions as soon as kindergarten (Kamps et al., 2008).

It is important to note that teachers and school staff were able to productively deliver small group intervention for students. With numerous reading intervention studies, especially involving Tier 3 students, researchers or people hired by researchers delivered the intervention instead of school staff. It is of great value to note that the school can provide appropriate interventions when provided with essential professional development and ample resources. If schools are able to offer intervention services in the early stages, fewer students will be in need of expensive services later on and students might progress enough to not have to receive intervention services at all. Furthermore, this model, with an emphasis on prevention and response to intervention in early elementary grades, meets the concept of No Child Left Behind requirements, warranting that all students obtain efficient instruction and, if needed, early intervention (Kamps et al., 2008).

The intervention programs in the study were applied reliably by the teachers and paraprofessionals. Fidelity ratings were suitable and improved as the program went on to levels of 90% and above for implementation. This percentage is acceptable by research standards (Kamps et al., 2008).

Findings indicated the interventions were extremely successful for participants. The sample sizes were not the same within groups, and small numbers were enrolled in the Programmed Reading and Open Court groups; therefore, limitations suggest caution

when considering group size. In the LAMP intervention, only two students participated, restricting the conclusions for the LAMP curriculum without additional research (Kamps et al., 2008).

Furthermore, not all participants received the WRMT-R assessments at the conclusion of second grade, and accordingly these data should be deciphered with caution. A final limitation, due to the study being quasi-experimental was that participants were assigned to intervention by their schools instead of being randomly assigned across schools to varying curriculum programs (Kamps et al., 2008).

In conclusion, the results from this study are encouraging in that learners getting direct intervention grew in essential early literacy skills and some progressed to grade-level performance. The most significant advancement with moderate to large effect sizes was exhibited by student participants in small groups using Direct Instruction curriculum programs, Reading Mastery, Early Interventions in Reading and Read Well (Kamps et al., 2008).

Discoveries broaden support for the use of other more methodical curriculum, including Programmed Reading and Open Court. These outcomes support other reports endorsing evidence-based programming and specific instruction in early elementary grades for at-risk readers, together with intensive intervention for high-risk student groupings. Study results also suggest using a three-tier, RTI model to drive interventions (Kamps et al., 2008).

Suggestions for forthcoming research incorporate continued trial studies of evidence-based interventions for students identified as at-risk as early as kindergarten and first grade plus long-term tracking of student progress. More research is needed to speak to intervention implementation and the use of the three-tier, RTI model in an urban

elementary school setting with a larger sample size of at-risk students with more focus on contributing multiple risk factors (Kamps et al., 2008).

A third study on early literacy, *Early Intervention in Reading: From Research to Practice,* by Menzies, Mahdavi, and Lewis (2008) documented the application of research-based approaches to decrease the amount of reading problems in first-grade learners. Literacy research provided information acknowledging agreements that early identification and management are the most successful strategies for the prevention of learning disabilities in reading for early elementary school students. Students identified as exhibiting poor reading skills are at higher risk of ongoing reading difficulties as they go through their educational career. The NAEP assessment of reading for 2003 determined 32% of students in the fourth grade were proficient readers. Because of this finding, it is particularly important that early intensive literacy instruction must be of significant importance for schools, especially schools serving high populations of at-risk students (Menzies et al., 2008).

There are research studies endorsing practices that can help to prevent difficulties in early literacy. Emphasis of phonological awareness, language development, and comprehension entrenched in a literature-based method provides a balanced literacy program that can be the groundwork for effective literacy instruction. The implementation of such literacy programs can be very difficult. Instruction must be concentrated and all-inclusive to sufficiently attend to all students, especially students considered to be at greatest risk of reading failure. This requires educators to be capable of correctly assessing student needs, then planning accordingly to provide instruction based on that assessment and student needs. It is challenging to ensure that all learners will successfully learn the essential skills to be proficient readers (Menzies et al., 2008).

Teaching reading to students is a difficult task that takes several years for teachers to acquire their instructional skill sets. The richness of information obtainable about how to teach reading successfully offers educators with additional strategies; however, this can make literacy instruction more challenging to master. Teachers should know instructional methods for phonics instruction and guided reading and should know which method to use at a given time. Teachers should use different types of instruction for different groups of learners yet create a rich literacy experience for all learners. Basically, efficient reading instruction is centered on the teacher's literacy skill set, and organizational ability provides what balanced reading instruction demands. If a teacher does not understand the parts of effective reading instruction, he/she may not possess the skills required to help prevent reading failure for at-risk learners (Menzies et al., 2008).

However, taking proven instructional approaches and implementing them in schools has experienced limited achievement. There are challenges in successfully implementing intervention programs. A first challenge is increasing teacher knowledge and effective instructional use of research-based methods. A second challenge is the importance of maintaining the program with fidelity. Menzies et al. (2008) cited research from Malouf and Schiller and listed three factors to be taken into consideration when implementing the use of research-based practices: growing instructor knowledge by adding to their current knowledge base, awareness of teachers' mindsets toward research and how they can impact their instruction, and knowing how local requirements can affect program implementation. If educators are supported in using their professional judgment while being provided with suitable professional development and its useful implementation in the classroom, sustainability of the intervention program is more likely. Intervention programs should provide enough flexibility so teachers can make

them their own and be strong enough so they can disaggregate student results. Intervention programs should always align with state and local curriculum standards. In addition, teachers should be provided with scheduled time to plan and collaborate with colleagues in order for the program to maintain effectiveness (Menzies et al., 2008).

This article reported the work of an elementary school to use endorsed research practices to plan and implement an early intervention reading program that would decrease the incidence of reading problems within the population of first-grade students. An added emphasis of the program was to offer early dependable identification of learners who should be tested for potential learning disabilities. Still, the main goal in the structuring of the program was to construct an intervention program that would work within the current structure of the school's existing language arts curriculum and use resources that already exist in the school, including Title I funds. The plan needed to have teacher buy-in with regard to the amount of time and work that would be added to their current teaching duties. The purpose of the study was to record the systematic implementation of best practices in the literacy in a real school setting implemented by school personnel. However, the study is empirical in its desire to apply the intervention with fidelity and to consistently collect data outcomes (Menzies et al., 2008).

The program's design is composed of three research-based components: (1) a process for ongoing progress monitoring of students and their skill acquisition, (2) usage of small groups with high intensity instruction, and (3) a precise instructional method used with students who have a deficiency in phonemic awareness (Menzies et al., 2008).

Teachers were provided opportunities to work collaboratively with other teachers and were provided with continuing support from a literacy coach to reflect on their own understanding of reading instruction. It was determined these components, joined with

the current language arts program, would establish a structure for teacher expertise to be capitalized on to offer intentional and specific instruction (Menzies et al., 2008).

This study assessed first-grade students' progress in reading skills. Particularly, researchers identified students who were at risk for reading problems and delivered literacy instruction following the outlined model. Researchers wanted to determine the magnitude to which identified children achieved grade-level reading proficiency when provided with instruction directed to their specific needs. Students who had previously failed to make expected growth in reading were identified to be at risk at the beginning of the school year. In an attempt to learn more about the exceptional challenges educators would face and to determine whether a special education placement would benefit qualifying students, identified students' reading abilities were assessed on an individual basis (Menzies et al., 2008).

Participants consisted of 42 first-grade students enrolled in a small elementary school in an urban area in Southern California that serves Grades Kindergarten through 6. At the start of the intervention program, 6 years and 3 months was the average age of the participants. Of the student population, 78% met the qualifications for free or reduced lunch, 26% were ELLs, 28% of students' parents did not complete high school, and fewer than 10% of the students' parents had any education after high school. Due to the demographics, the school as a whole was considered at risk for academic failure. Additionally, because its attendance zone contained three shelters for homeless women or for individuals with substance abuse problems, the school had an uncommonly high transience rate. It was typical for the children in the short-term housing circumstances to attend school for less than a month before they would transfer to another school. Although the year-long intervention program started with 51 students, nine students

moved, decreasing the final sample size number to 42 students (Menzies et al., 2008).

Adult participants in the reading intervention program included the teacher for each of the first-grade classrooms, four teacher assistants, a special education teacher, and a literacy coach, as well as the primary investigator for the study. The position of the literacy coach was provided to the school at the district level. The position uses an experienced educator to provide teachers with continuing professional development through a coaching method (Menzies et al., 2008).

All teachers were highly qualified for their teaching assignment. The teachers in first grade were somewhat new to their teaching assignment. One teacher had 5 years teaching experience, but this was her first time teaching an early elementary class. Her experience had been in the fourth grade prior to her new assignment. The other two teachers were beginning their second and third years of teaching. Both taught first grade the previous year at that school (Menzies et al., 2008).

In one classroom, ELL students were provided instruction in Spanish language literacy. In addition to teaching in English language development (ELD), the teacher and teacher assistant in this classroom were bilingual. The school district used an early exit model of bilingual education. This offered literacy teaching in Spanish for students in kindergarten through second grade, in addition to ELD instruction (Menzies et al., 2008).

The school's current program integrated a combination of code-based instruction and whole language methods but needed an orderly method for offering students instruction personalized to their specific skill levels and needs. Thirty percent of the first-grade students were not on grade level in reading by the end of their kindergarten year, based on guidelines for the Developmental Reading Assessment; therefore, differentiating instruction was difficult for the educators (Menzies et al., 2008).

The present language arts program was the starting place for the new intervention program. The curriculum followed state standards and used the district-adopted text which maintained those standards and accentuated precise and methodical instruction in phonemic awareness and phonics. While teachers were mandated to use the district text, they had substantial leeway in how they could plan their everyday instruction. Authentic literature was introduced through the teacher reading aloud including the shared reading of big books. Additionally, whole-class lessons were guided by the text. Students were free to select a variety of books that interested them, and the students got to spend time every day reading individually. The Writers' Workshop method, a process method to writing, was used throughout the school, including first grade. As explained later, all three elements making up the intervention plan were included in the language arts program (Menzies et al., 2008).

A system of continuing assessments was considered critical to determine best instructional practices for students, together with monitoring their progress. While the current district assessments were informative, those assessments were only administered three times in the school year (Menzies et al., 2008).

With the absence of an established assessment system in place, teachers failed to regularly and often monitor the pace of each student's achievement in reading skills. Consequently, students who were not making sufficient growth were unnoticed, and other students did not have instruction advanced enough for their skill set. To track student understanding of phonological awareness and understanding of the alphabetic principle, teachers used DIBELS weekly to monitor progress. DIBELS was used in combination with the DRA, which entailed the use of short texts that were used to assess student skill in decoding, fluency, and comprehension. Every 12 weeks DRA was administered. The

data from the DIBELS and DRA assessments were used to construct small instructional

groups centered on students' ability levels and to monitor students' continuing progress

(Menzies et al., 2008).

Intensity of instruction was the second component of the program and was

necessary to ensure that students would attain grade-level proficiency by the completion

of their first-grade year. Lowering the student-teacher ratio offered learners the

personalized instruction that would assist them in acquiring the reading skills needed to

be a proficient reader (Menzies et al., 2008).

The school's Title I budget provided the school the funds necessary to hire

paraprofessionals or teacher assistants to help in a variety of classroom tasks extending

from making copies to working one-on-one with students. The additional assistance

allowed for reorganization, and additional time for teacher assistants to be in the first-

grade classrooms was added. Two teacher assistants were placed in each first-grade

classroom to help in leading literacy groups. The literacy groups met for 45 minutes

Monday through Thursday. A state-wide class size reduction requirement limited first-

grade classrooms to 20 students per class. This requirement allowed teachers to

distribute students into four instructional learning groups. Each teacher assistant was

responsible for the instruction in one group, and the teacher split her time among the

other two groups. Since the school used an inclusive presentation model for meeting

special education services, the special education teacher assisted in one classroom by

leading a small group for students with Individualized Education Programs (IEPs).

Consequently, a teacher or teacher assistant led all four instructional groups in that class

for the entire time of the scheduled intervention (Menzies et al., 2008).

Once students were evaluated and assigned into comparable skill-level groups,

their assessment data were analyzed further to determine the type of reading instruction needed. There were three types of instructional groups were formed. One group concentrated on phonemic awareness, the next group stressed decoding and reading fluency, and the last group worked on guided reading techniques (Menzies et al., 2008).

Phonemic awareness group instruction consisted of three activities that were put into place for every session. First, students would listen to a rhyming story. As students absorbed the story, they would take part in the read along with the teacher. Then, an everyday lesson from either Scholastic's Phonics Chapter Books or the Cuentos Foneticos (for ELL) series was used as the instructional program. The first part of the lesson entailed blending and segmenting tasks, comparing sounds, and rhyming exercises. After the conclusion of the phonemic awareness activities, the teacher would present new words that students would come across in the story and then study earlier learned words. Students would read the text selection chorally with the teacher. Next, students would read individually as the teacher observed and aided. The last activity was a short dictation activity. The teacher spoke words from the text and students then wrote the text in their notes. If additional time were available, students played phonological awareness games (Menzies et al., 2008).

The decoding and fluency group followed a comparable plan but did not use instructional time on phonological awareness exercises. Instructional attention during this group time was for teaching letter-sound correspondence and applying fluency with connected text. At the start of each lesson, new words were presented and examined and earlier learned words were reexamined. Students took part in word-making activities and read individually decodable words from texts with a high percentage. Collections from earlier lessons were reread. The lesson concluded with a writing task, including

transcription activities. If additional time was present, students would reread their text choices. This system was the equivalent for ELL students, however Spanish language texts were used (Menzies et al., 2008).

Guided reading groups were comprised of students who had attained grade-level reading skills. The exercises in these groups had more adaptation contingent on the text. Teachers used trade books that incorporated a mixture of stories and themes. Typically, students completed a picture walk of the designated story with the teacher. Students would read the story independently, then the teacher would facilitate a conversation of the significant story features and explore for understanding. The activity was followed by a variety of writing and language development activities. Corresponding exercises were conducted in Spanish for ELL students (Menzies et al., 2008).

With input from the literacy coach, teachers used student data to guide their instruction and placement of students as needed to meet instructional needs for the students. Belonging in a specific group was not stationary. As students met the DIBELS goals for phonemic awareness and NWF, teachers determined if the student needed to move to a new instructional group to better meet his/her academic needs. Occasionally, the groups would stay the same, but the teachers would alter the activities to meet the improvement that the students had made. To help understand or validate their thoughts of student progression, teachers were encouraged to use the student assessment data (Menzies et al., 2008).

Differentiating instruction warranted that learners who were in need of specific instruction of phonological awareness and decoding received it; however, instruction was challenging for more advanced students. Students were not asked to perform exercises they had already attained mastery on; instead, teachers provided enrichment time for

students to engage in reading trade books and children's literature for an ample portion of time each day (Menzies et al., 2008).

All grade-level teachers in the school collaborated regularly. Two school-level teams met bimonthly to assess curricular concerns, one group for kindergarten through second grade and one group for third through sixth grade. Furthermore, grade-level teams assembled once a week to work through a variety of curriculum concerns and to discuss the progress of students. First-grade teachers used their meeting time to plan and analyze student data as well. The literacy coach was available during the grade-level meetings as a resource for teachers if they required assistance or materials for the literacy program. The literacy coach offered continuous staff development in reading and writing at all bimonthly meetings as well (Menzies et al., 2008).

The standardized, criterion-referenced assessment that was used in this study to measure students' literacy growth in a literature-based reading program was called the Developmental Reading Assessment. From kindergarten through fifth grade there are 38 levels. Levels A through 12 are considered kindergarten, primer, and pre-primer; Levels 14 to 16, first grade; Levels 18 to 28, second grade; and Levels 30 to 38, fourth grade. Each assessment level has two short texts with illustrations included. The DRA includes the usage of a running record to verify fluency and accuracy rate and a comprehension part to test the depth of student comprehension. The Spanish language adaptation of this assessment was administered to the ELL population (Menzies et al., 2008).

Another assessment used in this study was the Test of Early Reading Ability–Revised. TERA-R is a norm-referenced assessment that gages student proficiency of developing literacy skills. The assessment was standardized using a sample of 1,454 students. The TERA-R provides data on a student's comprehension of the concepts of

print and the idea that print has importance. It also assesses students' skills in identifying letters of the alphabet. The TERA-R is considered to have great substance legitimacy (Menzies et al., 2008).

The standardized assessment DIBELS was used for two of the six subtests. The Phoneme Segmentation Fluency (PSF) subtest is a test of phonological awareness intended to gage a student's skill in segmenting three- and four-phoneme words into their basic sounds. The proposed benchmark aim is 35 or more correct phonemes per minute in the early months of first grade. NWF assesses students' capabilities to smoothly decode and blend letters into words. The benchmark goal of 50 correct letter sounds per minute is expected by mid-first grade (Menzies et al., 2008).

A teacher assistant trained in how to administer the assessment evaluated students weekly. This created somewhat of a predicament for ELL students because they were obtaining instruction in Spanish language literacy. Researchers believed DIBELS assessment would still provide useful analytical information and considered correct any Spanish pronunciation of the phonemes (Menzies et al., 2008).

For the 3 years prior to the study, end of first-grade proficiency rates were 71%, 70%, and 69%, respectively, as gaged by the DRA. Given the constantly low skill rate, it was determined to over identify students for intensive instruction, to err on the side of caution to not overlook students. So, instead of using the DIBELS recommended standard of 10 or less phonemes per minute correct on the PSF, students for this study were identified to be at risk for possible literacy difficulties if they scored 35 or fewer phonemes per minute on a first semester administration of the assessment. This lower score was designated in an attempt to deliver strong intervention services to as many students who might be in need of further literacy instruction (Menzies et al., 2008).

Sixteen students, 38.1%, were determined to be at-risk, with mean PSF score of 20.94. Two of the students in the at-risk group were identified with a learning disability, had an IEP with literacy goals, and received special education services. The remaining 26 students, 61.9%, placed in the proficient group with a mean PSF score of 50.15 (Menzies et al., 2008).

Time analyses of variance (ANOVAs) with recurrent assessments on one issue were used to determine if the students in the literacy groups were making meaningful improvements over a period of time due to the reading intervention program and to conclude if the degrees of progress were different between at-risk students and proficient students. Detailed data were examined to conclude the number of students who attained proficiency on grade-level literacy skills by the end of the year and to assess the growth rates of students who did not score proficient on end-of-year assessments (Menzies et al., 2008).

The original ANOVA studied the TERA-R as the dependent measure. Mean analyses showed that spring TERA-R scores were considerably higher than fall TERA-R scores for all students regardless of their academic status. Analyses of means and effect sizes indicated that at-risk groups displayed comparable growth over a period of time on the TERA-R (Menzies et al., 2008).

The students identified to be at risk showed significant growth in reading during the course of the research period. Review of the data showed that both learning groups achieved reading growth; however, the at-risk group rate of growth was noticeably less than the non-at-risk learning groups. Post hoc between-group contrasts at each time point revealed that the omnibus interaction was most specifically a result of a significant difference for DRA scores across risk status observed in the spring, where the at-risk

group showed a significantly lower mean. Between-group contrasts at fall and winter were not significant (Menzies et al., 2008).

The local school system used the DRA to verify if students possessed the skills necessary to be considered proficient readers for their grade level. A majority of the students, 83.3%, were considered to be below basic based on the DRA assessment administered in the fall trimester. This means that student DRA scores were at a level 10 or lower. On the same assessment administration in the spring, only 7.1%, or three students, still placed in the below basic category. Ninety percent of the first-grade students in the study reached grade-level proficiency in reading by the end of the year. Based on results from the DRA, students at risk for reading made enough improvement to maintain above grade-level status. There were four treatment resisters who did not achieve grade-level goals by the completion of the school year. Even though these students did not reach the set grade-level goals, it is important to note these students had a very low skill set going into their first-grade year. However, they made impressive gains on the reading assessments as they progressed from level to level (Menzies et al., 2008).

The study evaluated the endeavors of school personnel to use validated research-based methods within an existing literacy program to progress the reading abilities of first-grade learners. After studying the literature and taking into account the needs and resources of the school community, researchers used continuing assessment, small group size, and personalized, differentiated instruction to help students achieve grade-level proficiency in first grade. A crucial component of the program implementation was to present them in a way that would provide educators with sufficient support to use them successfully. Researchers combined the methods into the current curriculum and used

text resources that the school was already in possession of in an attempt to elude having new programming being viewed as something extra or additional work. The students exhibited substantial growth over the course of the year on TERA-R and DRA assessments. Intensive intervention leads to gains in literacy skills for all of the students in the study. Ninety percent of the students attained grade-level proficiency by the end of the school year, which was a significant improvement when compared to previous years' performance. Furthermore, eight of the 16 students who were considered to be at risk for reading issues when the school year began exhibited advanced or above grade-level reading skill abilities when assessed in the spring administration of the DRA. The DRA requires that children read independently, decoding text and displaying understanding of the story. This is a strong indicator of how well students will do on school reading assignments (Menzies et al., 2008).

Even though the end-of-year student performance rates were significant, an aspect of interest was to look further at the four students who had not met grade-level standards for reading and decoding. At the beginning of the year, all four of these students were significantly behind other students who were considered at risk in their phonemic segmentation fluency scores. Two of those students had been identified and met the qualifications for special education services in kindergarten because of communication disorders. Another student receiving ELL instruction was recommended for special education testing during the intervention. It was determined that the student was eligible under the specific learning disability classification. The last of the four students was referred for special education testing but did not qualify to receive those services. Furthermore, this student did not attend kindergarten and then moved in the middle of first grade. The student returned to the school the next month without having attended

any school during the time she was gone from the school (Menzies et al., 2008).

It was evident that the children who had not met grade-level standards for proficiency had difficulties exceeding the challenges encountered. However, these learners did make progress, as evidenced by the upward trend of their DIBELS data and their improvement in their TERA-R scores from the beginning to the end of the school year. Significant progress on DRA was made by two of the students by the end of the year. Even though these four learners did not achieve the expected performance levels for their grade, the intensive intervention did provide positive outcomes in gains for these students that they might not have had if all of their instruction was done in a regular classroom setting (Menzies et al., 2008).

Of similar interest, 26, or 61.9%, of students achieved scores above that of their expected grade level in reading. It seems that the intensive, differentiated instruction delivered by the intervention yielded benefits for all of the students, not just students determined to be at risk for reading hardships. The directed, rigorous, and successful reading instructional program required the backing of several of the school's resources. Funding from the school's Title I budget allowed the school to provide intensive literacy instruction to small groups. It is evident that adequate funding is necessary to provide programs such as what was implemented in this study. Unfortunately, not all schools have the resources of funding and personnel to provide like programming (Menzies et al., 2008).

It is important to note that the study school's administration and staff were willing to move resources and to reconsider current instructional practices to make early intervention in reading a main focus for the school. Many schools are looking for ways to implement intervention programs within their schools. Meeting specific academic

needs for schools is unique for each school. It is essential to know your school's specific needs and available resources when developing effective programming (Menzies et al., 2008).

The instructional model had some features that were more challenging to apply than other parts. It was difficult for teachers to make instructional decisions from the DIBELS assessment information. Discussions with the teachers revealed that they were not convinced about the benefits of using repeated assessments to monitor and tweak instruction due to student progress. Even though the teacher assistants administered the assessments, a shortage of ample time to thoroughly examine the data made the teachers still feel pressure with decision making. It is questionable if the DIBELS assessments would have continued on a regular basis without reinforcement from the literacy coach (Menzies et al., 2008).

In the beginning, it was hard to change the learning groups between the teachers and the support personnel. Teachers were hesitant to change students and instructional strategies once they had become comfortable with their current groups and lessons, yet they needed to work with all of the groups so that classroom teachers would be knowledgeable of the degree of each student's progress. Revolving learning groups allowed teachers to determine how to better coach the teacher assistants with their instructional practices. Leading different groups became less of an issue once all staff became knowledgeable and comfortable with each of the instructional methods (Menzies et al., 2008).

Inclusively, the teachers were affirmative about the intervention process. The teachers reported that it took additional time to make plans for the teacher assistants, analyze data, and to meet collaboratively; however, the new program was not perceived

as too difficult to implement for teachers because sufficient support and resources were made available. Teachers were excited that their students were able to achieve academic success because of the intensive instruction. As teachers become more skilled at implementing an intervention model, preparing for instruction and evaluating data as a regular part of their daily actions, teachers will use less effort. It could be possible for teachers to see the benefits of progress monitoring to drive instruction as so important that they will use these approaches even if funding and support is cut (Menzies et al., 2008).

There were limitations noted in this study. One limitation was that the study was only conducted at one school and lost 17.3% of the participants because of the high transience rate. It appears the students who did move from this school did not make a significant impact on the sample in relation to demographics or to the fall TERA-R scores. In addition, one student enrolled in first grade at the school did not take part in the study, which permitted researchers to study growth across the group as well as to carefully inspect the growth of each child who had been identified as at risk for reading difficulties. The study findings do not provide a high level of generalizability, but they do make available a real-life image of what can happen when early intervention methods are utilized with a balanced literacy program and particular consideration is given to the school's circumstances and framework (Menzies et al., 2008).

Due to the small size of the research population, researchers could not randomly dispense students to groups or control for teacher impact. Nonetheless, three or more adults in each classroom conducted small-group instruction: the teacher, teacher assistant, a resource specialist, and the literacy coach. So that all students would have worked with each of the adults in the classroom for some amount of time, the groups

were rotated between the adults, lessening the issue of teacher effect. Another limitation was the absence of a control group, which made it impossible to be completely sure that learners would not have made the same academic growth without having the intervention provided. However, when referring back to the previous years' proficiency scores, individual student advances, and teacher opinions, researchers were realistically assured that the intervention had a positive effect on student advances in literacy (Menzies et al., 2008).

Researchers could not say which strategies were the most effective in promoting student growth in literacy skills; however, that was not the purpose of the study. The research goal was to use proven instructional methods and implement those in a way that fit the needs of the study school but to do so with the integrity that they would intensify the results of the literacy instruction. This approach could offer valued information for other schools wanting to develop and sustain strong literacy programs (Menzies et al., 2008).

This study validates the capability of teachers to apply research-based instruction in a strong and effective way. The researchers gave credit for the successfulness of the model to the fact that the school staff assisted in the creation of the intervention program and then sustained and supported its implementation. Meeting collaboratively to discuss planning and review data helped teachers to plan appropriate instruction and also added new information and ideas to their professional skill set. Coaching for the literacy coach also provided the teachers with support in using proved instructional strategies and helped in analyzing data and driving instruction (Menzies et al., 2008).

Three students in the sample who did not attain grade-level proficiency were eligible for special education services. Only one student not meeting proficiency was not

placed in special education classes (Menzies et al., 2008).

Early intervention programs are essential to prevent some reading challenges. In addition, programs such as what was implemented in the study provide data making it possible to have special education services earlier and with more rationale that the student does require specialized services to make academic improvements. As usages of the RTI model grow, teachers will be expected to monitor their students more closely to be able to determine and provide instruction that meets the needs of struggling students. Teachers and administrators will have to be creative and intentional with every aspect of the daily instructional schedule to guarantee that intervention is done productively (Menzies et al., 2008).

Finally, researchers suggest that following up with the children in the study post first grade is important to see if they continue to make gains in their reading abilities. This will also help determine the long-term impact of learning and can help in future planning for intervention programs and best practices. Focusing on early prevention and intervention is the most hopeful method for preventing unnecessary literacy failure (Menzies et al., 2008).

Purposeful instruction and early intervention is an important component in the process of helping students become good readers. The type of instruction is especially important when working with at-risk learners. The Glossary of Education Reform (2014) defined direct instruction as an instructional approach that is structured, sequential, and teacher-led. Direct instruction can also be a presentation of the content to students from the teacher in lecture or demonstration form. In both of these examples, the teacher is directing the instruction to the learners.

By teaching a program using the direct instructional approach, teachers can clarify

concepts and strategies, model and think aloud about making inferences, and help students determine the significance of text. Moore (n.d.) stated that in doing this, teachers expose the *secrets* of what good readers do. Once students know and can use reading strategies, teachers can then lessen the direct instruction and allow for more self-directed reading (Moore, n.d.).

In addition to the instructional piece, student motivation also plays a vital role in student reading. Motivation is an important link to the reading practice. Students who do not read as often or practice reading frequently do not become proficient readers. The frequency of reading is critical for a child to increase their recognition of sight words, vocabulary knowledge, fluency, ability to comprehend text, and basic reading skills. To become a fluent reader, a student must be motivated to read frequently. Further, Wigfield and Guthrie found that students with low motivation for reading were reading about a third as much as highly motivated students outside of the school setting (Morgan, Fuchs, Compton, Cordray, & Fuchs 2008).

Morgan et al. (2008) stated one reason for poor readers to possess poor motivation is because they have repeated experiences of failure in obtaining reading skills. According to Stanovich, consistent reading failure initiates a "casual chain of escalating negative side effects" (Morgan et al., 2008, p. 364). Additionally, students with lower reading skills were more likely to avoid doing a reading task than the highly skilled students.

The motivation to engage in reading activities tends to be less for the students at risk for reading failure. It is typical for these students to possess a bad self-concept, feel a greater sense of helpless, and avoid activities that require reading at a greater rate than their peers. It has been proposed in some research that reduced motivation could be an

essential component of reading failure. If interventions only target reading problems, without instantaneously focusing the student's lack of motivation, the instruction could be unsuccessful in the prevention of long-term reading failure (Morgan et al., 2008).

In as early as mid-year, first-grade struggling reading students already perceive reading as very difficult, view themselves as less capable readers, and have negative attitudes towards reading when compared to higher achieving students; therefore, low skilled student's intrinsic motivation differed significantly from the high intrinsic motivation seen in higher achieving students (Morgan et al., 2008).

Poor readers reported lower reading self-concepts than did their more skilled peers. Teachers rated these children as both less intrinsically motivated to read and more task avoidant during reading instruction. Teachers also rated poor readers as less likely to independently practice reading (Morgan et al., 2008).

Instruction in reading improves comprehension when students have a strong level of engagement and motivation. Higher-order thinking is used when students view reading as an opportunity to gain new knowledge and see this as the goal of reading, to comprehend and to retell findings. Self-efficacy is influenced by success in reading. "Unless students believe they can produce desired effects by their actions, they have little incentive to act" (Afflerbach, Cho, Kim, Crassas, & Doyle, 2013, p. 441).

Studies show that successful reading teachers at the elementary level nurture student engagement with text, shape self-efficacy, and provide wide-ranging efforts to make reading and reading instruction appealing. Students who exhibit high self-efficacy levels see problems as tasks to be overcome and exert more effort when challenged (Afflerbach et al., 2013).

Motivated students read more, engage in a larger variety of texts, and persist even

when reading becomes more difficult. Those who believe they can succeed at reading tasks often do (Afflerbach et al., 2013).

A strong indicator of achievement in upper grades is reading proficiency in early elementary school. Students with low motivation typically display and maintain poor performance in reading tasks. Research shows that encouraging student motivation in reading can improve the reading ability of struggling readers. As students develop their skills in reading, they begin to think confidently about their abilities to read, consequently improving the self-concept they have as a reader (Melekoglu, 2011).

The three articles reviewed for the literature directly and indirectly provided several themes concerning reading intervention that were used in the research process of the case study. One theme was the importance of providing early literacy intervention for students identified as at risk for reading failure. A second theme was the value of implementing the use of the RTI model in order to better identify and meet the individual needs of all students. The third theme from the literature review was the type of and method of delivery of the curriculum. Combined with that is the ongoing process of progress monitoring to drive instruction. The last theme noted was school implementation: teacher effectiveness, educator skill set, following specific curriculum, collaborative planning, and delivery of appropriate instruction.

Chapter 3: Methodology

Introduction

The ability to read is an essential skill. It is a vital part to all learning and is tied to achievement in an individual's education and success in his/her career (Garnes & Wichowski, 1998). Biancarosa and Snow (2004) reported that approximately eight million adolescents struggle with reading. Iyengar and Ball (2007) found that one-third of high school seniors are reading proficiently. The U.S. Department of Education suggested reading ability is an essential forecaster of success in mathematics and science, and the future of being a globally competitive nation requires today's students to be much more academically advanced than that of earlier generations (Pitcher et al., 2010, p. 636).

The purpose of this study was to look at the impact of intensive reading interventions in early elementary school grade levels. The case study examined what academic impact can be made on low-performing early elementary school students with intensive reading interventions and Title I inclusion on a daily small classroom setting.

Participants

The school in this study is a traditional elementary school serving students in Grades Kindergarten through 5. The student body consists of 660 students with the following population percentages: 74% Caucasian, 13% African-American, 9% Hispanic, 3% Multi-Racial, and 1% Asian. The enrollment data show that 357 students are male and 307 are female.

Participants in the study include 2 years of rising first-grade and second-grade students identified as at-risk students but not receiving exceptional children services who were placed in a select classroom with only 12 students. In the school setting, there were five first-grade classrooms and five second-grade classrooms. At those grade levels, one

first-grade teacher and one second-grade teacher were selected to teach the class with only 12 students. These classes consisted of the 12 lowest students in their respective grade levels if they were not already identified and receiving special education services.

Instruments

This was a mixed-methods study. One source of data was from beginning-of-year, middle-of-year, and end-of-year DIBELS composite data. Additional information came from teacher, reading specialist, curriculum coach, teacher assistant, and principal interview questions.

Interview questions were prepared for all staff who were interviewed. Appendix A shows the Educator Interview Questionnaire – Teachers; Appendix B shows the Educator Interview Questionairre – Teacher Assistant form; and Appendix C shows the Educator Interview Questionairre – Administrator/Curriculum Coach questions.

Procedures

Research Question 1, "What impact does intensive early intervention have on students identified most at risk for reading difficulties?" To answer this first question, DIBELS assessment composite scores from the academic years 2012-2013 and 2013-2014 from all participants were collected. These data included beginning-of-year, middle-of-year, and end-of-year composite assessment data.

Data for Research Question 1 are organized by the use of Excel spreadsheets. The data are organized by teacher, grade level, and intervention year. The data are displayed in table form. There are charts and tables for each specific cohort, grade level, and teacher. There are also charts or tables for any trends the data showed.

Analyses of data were conducted by examining the data for trends, such as inclines or declines in student achieve at all periods of assessment administration. Data

were also analyzed for each individual student if significant differences were noted.

The analyses of data helped answer the research question by providing specific data on students to show if the students receiving intensive intervention in reading made gains. This allowed the effectiveness of the intervention program to be determined.

A narrative of the teacher comments from the interview process are included to describe the staff's perceptions of the program.

The second research question was, "What type of instruction is most effective for identified at-risk students in terms of growth?" In answering this question, mixed-methods data were used. Data collection consisted of obtaining all DIBELS composite assessment data that were available, identified by student. Other data were collected by means of interviews with instructional staff (teacher, Title I reading specialist, curriculum coach, teacher assistant, and school administrator). Additional resources that could serve as possible data would be collaborative planning session notes, lesson plans, and tier plans for students.

Numerical data were organized in a spreadsheet, and interviews with instructional staff were recorded or transcribed. The display of the data uses tables for the quantitative information and narratives for the interview portions.

The process for data analyses included organizing the data by theme or categories and then listing concerns, strengths, weakness, similar experiences, or suggestions by area. To further analyze the gathered data, it was important to identify and document patterns and trends in charts, tables, or narratives.

The analyses of the data helped determine teachers' observations of the data and how they were used to drive instruction. Also, analyses of data provided insight into what type of instruction was most effective, was most frequently used, was least

successful, was most difficult to implement, and was most preferred by instructional staff. Any other items that arose from the research data were noted.

The final research question was, "What effect does small group class size, with Title I inclusion, using small group instruction, have on academic progress for students identified as at-risk readers attaining grade-level proficiency in reading skills?" To collect data for the final research question, composite data from DIBELS for all identified students were gathered. This included composite DIBELS assessment data from the beginning of year, middle of year, and end of year for the students. The data for this research question was organized on a spreadsheet. Data collected are displayed by using charts and tables.

Analyses of data consisted of further examination of the data, looking for trends, changes in data, and looking for significant differences at any time of the intervention. The data analyses provided conclusions to the effect small group class size, with Title I inclusion, using small group instruction have on academic progress for students identified as at-risk readers attaining grade-level proficiency in reading skills.

Limitations

The limitation that is always a part of the interview process for gathering data is that someone may not share all the techniques or methods used. Further, it is also possible that out-of-classroom factors (student ability, student health, student motivation, or student advantages or disadvantages from the environment) may have contributed to or hindered successful progress.

Chapter 4: Results

"Reading is critical because a great deal of formal education depends upon being able to read with understanding. Reading difficulties will inevitably create educational difficulties, which in turn, are a major source of economic and social disadvantages" (Hulme & Snowling, 2011, p. 139). Wise (2009) acknowledged that despite the grade level, literacy is the foundation of all student achievement.

According to the NAEP, roughly 70% of students struggle with reading or learning to read. Because so many students struggle with literacy, it is of great importance to provide these at-risk students with skill development using differentiated instruction to help them be successful while in school and as they continue lifelong learning. The curriculum in middle school and high school is becoming more demanding for learners. Nearly 7,000 students in the United States drop out of school daily. A lack of sufficient literacy skills is most likely the reason for students to drop out because they are not achieving success at higher educational levels. The changing pace of today's society ensures the need for educational institutions to improve literacy instructional practices and to put things into place that will increase and enhance literacy skills for students. Therefore, "differentiated instruction" is essential to assist these students with their learning deficits or differences in order to help them be successful in school and throughout life (Biancarosa & Snow, 2004, p. 7).

The purpose of this study was to determine the impact of the implementation of an early reading intervention program. The case study examined what academic gains can be made with low performing, early elementary school students with intensive reading interventions and Title I inclusion on a daily small classroom setting. The research questions for this case study included

1. What impact does intensive early intervention have on students identified most at risk for reading difficulties and in helping those students reach grade-level proficiency in reading?

2. What type of instruction was most effective for identified at-risk students in terms of growth?

3. What effect does using small group instruction have on academic progress for students identified as at-risk readers attaining grade-level proficiency in reading skills?

Results

The mixed-methods data from the research for this study provided evidence for the impact of reading interventions in early elementary school grade levels. When students receive direct instruction, it impacts their academic growth by boosting student self-efficacy and thus enhancing student learning. Well-planned, direct instruction and activities also provide students opportunities for academic growth. Small class size, combined with small group instruction, allows for better teacher collaboration and planning for more individualized student instruction.

Research Question 1 was to determine the impact intensive early intervention had on students identified most at risk for reading difficulties. Tables 1, 2, 3, and 4 display DIBELS composite scores for each student in first and second grade in the small class for both years of the early intervention initiative. The tables show beginning (BOY), middle (MOY) and end-of-year (EOY) composite scores for each student. The benchmark score for each assessment point is included with the table.

Tables 1 and 2 provide the data to support that first-grade students in the small classes size receiving direct instruction with the GATE program improved on their

literacy assessment scores throughout the course of the year. First-year, first-grade data reported that BOY assessments revealed 4/12 or 1/3 of the students were at or above benchmark; MOY assessments revealed 5/11 of the students were at or above benchmark; and EOY assessments revealed 10/11 of the students reached or exceeded benchmark level of proficiency. Data for first grade, year 2 reported that BOY assessments revealed 4/12 or 1/3 of the students were at or above benchmark level of proficiency; MOY assessments revealed 0/11 of the students were at or above benchmark; and EOY assessments revealed 8/11 of the students reached or exceeded benchmark.

Tables 3 and 4 display BOY, MOY, and EOY DIBELS assessment data for students in the second grade for both years of the small class size, inclusion initiative. This data provided evidence that second-grade students did not show the same overall growth as first-grade students did in either year. Year 1, assessment data for second-grade students revealed that 2/12 or 1/6 of the students were at or above benchmark at BOY; 0/11 of the students were at or above benchmark at MOY; and 0/11 of the students were at or above benchmark at EOY. The next year, second-grade assessment data remained the same as Year 1.

Tables 5, 6, 7, and 8 display the percentage of students from each class in the grade level who were not proficient at the end of the year using the DIBELS assessment measures. Classes listed in each table with the letter A indicate the intervention class. In the first year, the first-grade small class study group ended the year with only 9% of students not meeting benchmark. Other first-grade classes finished the year with 15%, 15%, 26%, and 30% of students not reaching benchmark or proficiency standards. At the completion of the second year, the first-grade small class size group ended with 16% of students not meeting proficiency standards. The other four first-grade classes ended the

year with 4%, 21%, 27%, and 21% of students not meeting benchmark proficiency.

For second-grade students in the small class size for the first year, 90% of the

class did not meet proficiency requirements as determined by the assessment measure.

The remaining five traditional classes finished the school year with 28%, 15%, 14%,

15%, and 15% of students not meeting the benchmark requirement. For the second year,

the small class size finished the year with 90% of students not meeting the proficiency

benchmark. The other four classes had only 22%, 30%, 30%, and 10% of students not

meeting the proficiency requirement.

Table 1

Small Class Year-Long Composite DIBELS Data for Students (Year 1, Grade 1)

1-1 A Students	BOY	Difference From Benchmark	MOY	Difference From Benchmark	EOY	Difference From Benchmark
1	100	-13	137	7	173	18
2	87	-26	121	-9	230	75
3	95	-18	79	-51	173	18
4	95	-18	155	25	199	44
5	124	11	127	-3	195	40
6	57	-56	58	-72	133	-22
7	117	4	162	32	213	58
8	144	31	192	62	267	112
9	106	-7	116	-14	205	50
10	24	-89	77	-53	181	26
11	142	29	147	17	205	50
12	60	-53	No data	No data	No data	No data

Note. Benchmark: BOY (113), MOY (130), EOY (155); Difference = difference from BOY, MOY, and EOY benchmark.

Table 2

Small Class Year-Long Composite DIBELS Data for Students (Year 2, Grade 1)

2-1 A Students	BOY	Difference From Benchmark	MOY	Difference From Benchmark	EOY	Difference From Benchmark
1	75	-38	88	-50	188	33
2	16	-97	43	-87	21	-134
3	99	-14	190	60	278	123
4	106	-7	160	30	232	77
5	101	-12	179	49	233	78
6	110	-3	109	-21	204	49
7	80	-33	117	-13	164	9
8	115	2	121	-9	211	56
9	81	-32	139	9	193	38
10	60	-53	146	16	176	21
11	98	-15	145	15	217	62
12	No data	No data	No data	No data	140	-15

Note. Benchmark: BOY (113), MOY (130), EOY (155); Difference = difference from BOY, MOY, and EOY benchmark.

Table 3

Small Class Year-Long Composite DIBELS Data for Students (Year 1, Grade 2)

1-2 A Students	BOY	Difference From Benchmark	MOY	Difference From Benchmark	EOY	Difference From Benchmark
1	109	-32	63	-127	164	-74
2	138	-3	78	-112	109	-129
3	83	-58	112	-78	197	-41
4	59	-82	103	-87	261	23
5	143	2	128	-62	168	-70
6	82	-59	63	-127	111	-127
7	76	-65	125	-63	174	-64
8	37	-104	54	-136	234	-4
9	122	-19	63	-125	178	-60
10	208	64	No data	No data	No data	No data
11	39	-102	108	-82	215	-23
12	23	-118	19	-171	120	-118

Note. Benchmark BOY (141), MOY, (190), EOY (238); Difference = difference from BOY, MOY, and EOY benchmark.

Table 4

Small Class Year-Long Composite DIBELS Data for Students (Year 2, Grade 2)

2-2 A Students	BOY	Difference From Benchmark	MOY	Difference From Benchmark	EOY	Difference From Benchmark
1	65	-76	50	-140	139	-99
2	57	-84	57	-133	115	-123
3	64	-77	128	-62	172	-66
4	157	16	149	-41	237	-1
5	124	-17	58	-132	167	-71
6	75	-66	57	-133	36	-202
7	123	-18	114	-76	239	1
8	56	-85	16	-174	133	-105
9	51	-90	135	-55	111	-127
10	63	-78	172	-18	158	-80
11	No data	No data	275	85	142	-96

Note. Benchmark BOY (141), MOY, (190), EOY (238); Difference = difference from BOY, MOY, and EOY benchmark.

Table 5

Percentage of Students Not on Benchmark (Year 1, Grade 1)

	BOY	MOY	EOY	Difference from BOY to EOY
1-1 A	66	54	9	57
1-1 B	33	35	15	17
1-1 C	28	28	15	13
1-1 D	20	31	26	-6
1-1 E	23	25	30	-7

Note. 1-1 A is the intervention class, all others are traditional classes.

Table 6

Percentage of Students Not on Benchmark (Year 2, Grade 1)

	BOY	MOY	EOY	Difference from BOY to EOY
2-1 A	90	45	16	74
2-1 B	30	21	4	26
2-1 C	22	18	21	1
2-1 D	33	36	27	6
2-1 E	14	38	21	-7

Note. 2-1 A is the intervention class, all others are traditional classes.

Table 7

Percentage of Students Not on Benchmark (Year 1, Grade 2)

	BOY	MOY	EOY	Difference from BOY to EOY
1-2 A	83	100	90	-7
1-2 B	28	22	28	0
1-2 C	19	15	15	4
1-2 D	9	14	14	-5
1-2 E	22	27	15	7
1-2 F	15	5	15	0

Note. 1-2 A is the intervention class, all others are traditional classes.

Table 8

Percentage of Students Not on Benchmark (Year 2, Grade 2)

	BOY	MOY	EOY	Difference from BOY to EOY
2-2 A	90	81	90	0
2-2 B	26	23	22	4
2-2 C	27	31	30	-3
2-2 D	10	28	30	-20
2-2 E	14	14	10	4

Note. 2-2 A is the intervention class, all others are traditional classes.

The data in Tables 1-8 show that first-grade students made academic growth

meeting DIBELS assessment grade-level proficiency at a higher rate than that of second-grade students. Students in second grade were not as successful meeting grade-level proficiency standards. However, interviews with teachers, the reading specialist, teacher assistants, and administration provided evidence that all students in both grade levels for each year made academic gains. An important fact to recall is that all of these students were not on grade level at the end of the previous school year and were in fact the lowest students in their grade level with the exception of students receiving Exceptional Children services. Therefore, these students would have to make larger gains to be considered on grade level.

The classroom teacher, who taught the first-grade small class size, with Title I inclusion, reported seeing many positive academic changes in her students in both years of the initiative. This teacher reported in an interview that through the setup of the class, she felt as though she knew her students better as compared to previous years where she taught a traditional class. She said she knew their personalities and academic needs better, which led her to be able to better meet their needs. The teacher said that during the course of the school year, these lower achieving students were allowed to shine academically in their abilities because of the individualized instruction they were receiving. She reported that students seemed to like school better. They seemed to feel as though they were really smart, and she saw tremendous growth in their confidence. As their confidence increased, she saw student motivation increase. Students who were nonreaders and unmotivated at the beginning of the school year would pick up a book and read on their own as confidence grew. Not only did the students read more on their own, the teacher also noted that students would see their growth, for example in number of sight words read, and knowing that they were successful caused them to work even

harder.

The Title I reading specialist who worked with first grade in the first year reported similar changes in the students in regards to self-efficacy with the students receiving the early reading interventions. The reading specialist stated that at the beginning of the school year, the students had low self-confidence and were easily frustrated when they were unsuccessful with reading. However, as the year went on and students received more interventions to meet their academic needs, their confidence increased and they were less frustrated because they could use the reading strategies they had learned to read text more successfully. In addition, she said that she saw student motivation increase. She said the kids wanted to read and showed a true desire to read. To display the excitement in student success, the reading specialist said they would often stop for a brief moment to celebrate as a class when a student had reached a significant goal and was able to do something with which they had previously struggled. She said these celebrations were important to build confidence in the students and to build a team atmosphere and that the celebrations helped in the students' willingness to try harder. She said students were proud of their accomplishments as well as the accomplishments of their classmates.

The reading specialist for the second year in the first grade class stated that it was a great experience to see when the skill or idea they were teaching the students "clicked." She said that in the year she was with those students that their motivation increased, and they had more pride in their academic abilities. She said the students were more self-motivated than they had previously been. Many students wanted to read to anyone who would listen to them read. During the intervention time, students would monitor their own progress.

The final staff interview for first grade was the teacher assistant. The teacher

assistant also spoke of the great things that came from the early interventions with these students. She said they frequently praised the students for their work and had celebrations for student achievement. She said when the students saw that they could really read that they worked harder to learn even more. She also said that the success they experienced at school transferred over to home as well. The teacher assistant reported that students were eager to learn and read at home as well. They were proud of their accomplishments and wanted to share it with their families. Another change the teacher assistant mentioned was that at the beginning of the year, students could not read or read well and they would not read in front of peers or adults. By the end of the school year, the students loved to read to peers, adults, or crowds.

Second grade did not see as much success in students reaching grade level as determined by the DIBELS assessment measure. However, all staff involved with those two classes stated student gains did occur. The second-grade classroom teacher for both years said that her students' confidence in reading grew throughout each year. She said they were excited about reading and displayed enjoyment when reading. She mentioned that the students were more successful with their reading and were proud of their abilities. By the end of the year, the teacher said the students would frequently ask with excitement, "when can we read?"

The reading specialist from Title I worked with the same classroom teacher and teacher assistant both years in second grade. She noted positive changes in the students as well. She reported their reading skills grew in phonics. She also shared they seemed more confident because reading was something that they could do now after the interventions. The reading specialist said that she saw group support develop among the students. They knew they could rely on their classmates to help if they needed assistance

with reading without ridicule. By the end of the year, the Title I teacher said the

students' "confidence shot through the roof" and that she felt as though the students

found a love for reading.

The intervention class teacher assistant stated, "I saw confidence build." She said

the students loved praise for their accomplishments, appreciated the outcomes of their

hard work, and saw excitement in each other because they could read. The students

wanted to read to adults, which they had not at the beginning of the school year.

The principal for the school spoke of both grade levels for each year in regards to

the impact that early intervention had on these students. She said that over the 2 years, in

all four classes, she saw a positive change in the students' confidence and students

become more motivated academically.

The curriculum technology coordinator for the school stated in his interview

about the initiative that he noticed student participation increase and confidence grow.

They were more likely to read with an adult, and they were more motivated. He observed

students' "success breeds more success."

All first- and second-grade teachers and teacher assistants in the school were

interviewed, as well as the principal, CTC, and reading specialist. There was an

overwhelming difference in the interviews from classroom teachers and teacher assistants

who were in a traditional setting verses those staff involved in the intervention class.

Each staff member involved said it was a wonderful experience for these 2 years. They

loved it, it felt more like a family, and they would do it again because of the changes in

student confidence and enjoyment.

Research Question 2 asked what type of instruction was most effective for

identified at-risk students in terms of growth. Students in the intervention classes worked

in small groups of four students per group. One group would be with the teacher, one group with the teacher assistant, and one group with the reading specialist. The groups would rotate after a specific amount of time so that all students would have been to each center each instructional period. These intervention classes saw student growth occur from direct instruction for both first and second grade.

The Title I reading specialists used the Read Naturally GATE program in their instruction for each small group. GATE is an intervention program that provides the high-quality instructional and behavioral supports low-performing students need. Read Naturally GATE is a reading intervention program used for small groups to develop phonemic awareness, phonics skills, reading fluency, and recognition of high-frequency words. The program offers three levels of instruction on short vowels, long vowels, and consonant blends. Students improve comprehension and develop vocabulary while working with nonfiction stories. The lessons in GATE are scripted and can be delivered to groups of beginning and developing readers with the teachers using a flipchart and student booklets (www.readnaturally.com).

Using a direct instructional method, the reading specialist used a modified GATE program. The teacher supplemented materials based on her expertise and on the students' needs. GATE provided an instructional guide for the specialist; however, there was a need to add other materials specific to the students' individual needs. Some material that was used was from the Florida Center for Reading Research, leveled literacy readers, teacher created activities, word cards, and hands on and movement games. All of the materials were planned specifically to meet students' deficits.

The two classroom teachers also used a direct method for the majority of their reading instruction. The first-grade teacher reported that she did not use a specific

program but followed the Common Core English Language Art standards for North Carolina. She said that for literacy instruction in small groups, they would do shared readings, choral reading, repeated readings, word work, and teach reading strategies. The second-grade teacher stated that she taught based on student needs using direct instruction for groups of three to four students per group. She said that she used Guided Reading, Dolch word list, Scholastic reading materials, Harcourt leveled readers, teacher created materials and games based on students' needs, and lessons from Teachers Pay Teachers.

The teacher assistants working in the intervention classrooms would also use a significant amount of direct instruction. With each literacy group, the teacher assistants would work on sight words, sounding out words, reading skills, and fluency. They would do this using cards, Title I games, and teacher-made games. They also did a large amount of drilling with the sight words and would frequently review their words. Both teacher assistants reported differentiated word lists and reading levels. The first-grade assistant stated that one student was unsuccessful on first-grade sight words, so she began working with him on a kindergarten list. She said they started where the students' needs indicated they were ready to begin.

Throughout the course of the school year for both years, the teachers, reading specialist, and teacher assistants provided the majority of students' literacy instruction in a direct instructional method. Tables 1 through 4 show the majority of students made gains in their DIBELS composite scores from the beginning of the year to the end of the year. As show in Tables 5 and 6, all students in first grade in the initial year showed gains in their DIBELS composite scores. In the second year for first grade, only one student did not make positive gains in the DIBELS score. In second grade, there was one

student each year who did not show growth in their scores, which is displayed in Tables 7 and 8.

Not all of the students met the benchmark goal, and the percentage was significantly lower in second-grade students. However, the data show that the majority of students who were instructed using the direct instructional method made positive growth when assessed using the DIBELS assessment method.

Another indication of the positive effect of direct instruction can be seen in Tables 5 through 8. These tables show the percentage of students for each class in both grade levels who did not meet proficiency standards at certain points in the year. The traditional classes did use some of the same direct instruction as used with the intervention classrooms; however, they did not use it as frequently. The traditional classes offered more independent centers and more inquiry-based learning activities.

The first-grade intervention class which was mostly direct instruction decreased in students who were not proficient from the BOY with 66% to EOY at 9%; the first-grade classes that did not incorporate as much direct instruction began at 33% and finished with 15%, 28% to 15%, 20% to 26%, and 23% to 30%. The last two percentages show that students in those two traditional classes ended with fewer students on grade level than when the year began.

The second year of the initiative for first-grade data show similar results. The intervention class has 90% of students not grade-level proficient at the beginning of the year. By the end of the year, that number had decreased to only 16% not grade-level proficient. The traditional classes had three classes with positive growth, 30% to 4%, 22% to 21%, and 33% to 27%; and one class showing negative growth with 14% BOY to 21% EOY.

The second intervention class did not show positive gains as compared to what was achieved in first grade both years. Tables 7 and 8 show data for all second grade classes for both years. The intervention class began the first year with 83% of students not meeting grade-level proficiency. That class ended the year with 90% of students not on grade level. The traditional second-grade classes for that year showed more improvement: 28% to 28%, 19% to 15%, 9% to 14%, 22% to 15%, and 15% to 15%.

The second year for second grade yielded similar results. The intervention class BOY was at 90% not proficient and EOY at 90%. The other classes maintained proficiency with their students: 26% to 22%, 27% to 30%, 14% to 10%, and one traditional class showed negative growth with 10% BOY and 30% EOY.

The material in the grade level did become more difficult as the year progressed. Students were expected to be on grade level as measured by DIBELS and to be ready to enter the next grade. Students in the intervention class began the year much further behind the other students. Educators in those rooms had to meet more specific needs and at times teach skills that were of a lower grade level before adding the next level. Note that the farther behind expected growth students were, the more skills they had to gain to achieve expected growth.

In the small group setting of three to four students, the teachers were able to reach each student directly because they could immediately determine whether each student in the group was achieving the specific lesson. The teachers, reading specialist, and teacher assistants could instruct the students, frequently informally assess for understanding, and guide students to correct misunderstandings and offer specific and immediate feedback.

Research Question 3 looked for the effect small-group instruction had on academic progress for students identified as at-risk readers attaining grade-level

proficiency in reading skills. The data in Tables 1 through 4 support that almost all students in the intervention classes made positive academic gains. The data from Tables 5 through 8 show that first-grade students in the intervention classes were much more successful than second grade for students meeting grade-level proficiency by the end of the year.

There were positive effects of small group instruction for the improvement of student learning even though all students did not reach grade-level proficiency in reading by the end of the school year. By providing the intervention class, students identified as at-risk learners received a more individualized and differentiated type of daily instruction than what would have been provided if they were in a traditional classroom setting. Students in traditional classes in the school were provided interventions based on their needs. Some of these interventions according to teachers interviewed were Title I instruction during pull out time, focus on the skill deficit during WIN time (What I Need), and pulling the student aside to work on the skills when time provided. Although the students in the traditional classes did receive interventions, it was not to the level that the students in the small class size with Title I inclusion intervention groups received. These intervention students received small group, differentiated and direct instruct in literacy every day and for extended periods of time.

The teachers and reading specialist reported they felt the students' needs were met better in this setting because their instruction was more purposeful and personalized for each student. The teachers said they were able to provide this type of instruction because they collaborated and progress monitored students frequently.

Collaboration between the teacher and the reading specialist took place multiple times a week. Once a week they had a scheduled time for planning. Through the

interview process, both grade-level intervention teachers and reading specialists reported that they met on their scheduled day as well as many other days throughout the week to evaluate where students were, materials that were needed, what changes needed to be made, and to discuss assessment, formal and informal. Since there were 12 students in each class, the teachers could speak specifically about each child and their progress. From the progress monitoring data, the teacher and reading specialist would determine their groups and plan instruction. All of the educators involved in the intervention classes said that even though they had to lowest performing students in their grade level, they had their high, medium, and low groups. Using collaborative efforts, the teachers would plan instruction and obtain materials that would work best for each group.

The collaboration between the teachers not only allowed for better instruction through frequent planning and progress monitoring, it also gave the teachers a sense of ownership in the students' academic improvements. The teachers, teacher assistants, and reading specialist took this task very personally. Each of the teachers in the intervention classes spoke to the goal and involvement that they had with each student in their classroom. When students were successful, they celebrated. They saw this as a challenge and a goal to help each student grow academically and personally. The teachers often referred to their classes as having a "family" environment and feeling in the interviews.

In addition to collaborating with each other, the team of teachers collaborated with students' families as well. The classroom teacher and reading specialist met with each parent or guardian as the school year began to discuss the intervention class and their purpose and goal. They also discussed the parent's role in their child's education. The teachers were in constant contact with parents about their child's progress.

During the course of the school year, there were three parent involvement events. These events consisted of a student reading performance, teachers giving the parents resources and teaching the parents how to use the resources to help their child at home, and snacks. Each parent involvement event had great attendance. The teachers would make sure that each child had a representative present. The teachers reported a strong report with parents. The relationship with the parents was a benefit to the program because the parents were actively involved and took ownership in their child's education. The teachers involved said that typically most of these parents would not have felt comfortable in the school setting and would be more likely to avoid coming to a meeting and being as active with school and parent relations.

Overall, the small class size with small group intervention instruction did have a positive effect on students. Not all students reached grade-level proficiency, but it is important to keep in mind that some students were very far behind and had a long way to go to be considered proficient on their grade-level literacy standards. With the small class size and small group instruction, the educators instructed using specific plans and differentiation, evaluated, reflected, and collaborated which allowed students with the means to learn and improve in their literacy skills.

The data from assessments and interviews provided evidence for the impact of reading interventions in early elementary school grade levels. When students receive direct instruction, it impacts their academic growth by boosting student self-efficacy, thus enhancing student learning. Well-planned, direct instruction and activities also provide students opportunities for academic growth. Small class size, combined with small group instruction, allows for better teacher collaboration and planning for more individualized student instruction.

Chapter 5: Discussion

Introduction

This study was conducted to determine the impact of small class and ability grouping for literacy intervention in early elementary school grade levels. All students were enrolled in a classroom based on assessment data providing evidence that these students were the lowest performing students in their grade level, with the exception of students enrolled in the exceptional children's program and students with significant behavioral problems. The task for the teachers, teacher assistants, and reading specialists was to get students to achieve grade-level proficiency in reading by the end of the school year.

There were four classes in this case study. The intervention classes in the study were one first-grade and one second-grade class only, for the school years 2012-2013 and 2013-2014. Each classroom had students who met the criteria for class placement, and there were no more than 12 students in a class. Each class had a teacher who was selected by school administration based on their proven record of being a successful literacy teacher, and a reading specialist from the school's Title I Department was also assigned to each class. The teacher and reading specialist worked together to design the instruction and content that would best meet each child's needs. The teacher assistants were experienced and trained by the teacher or reading specialist to effectively cover the material for which they were responsible. In each year of the intervention program, parents were encouraged to be active and involved. Three parent involvement events were provided annually for students to perform and read for parents, for the teachers to share literacy strategies with their children, and to celebrate student accomplishments.

The results evidenced that the majority of students enrolled in the small classes

using small group intervention with Title I inclusion made academic progress as determined by data using the DIBELS assessments. The stakeholders involved spoke very highly of the initiative, what the teachers were able to do with the students, and the positive outcomes they saw from the small group work.

Overall, the DIBELS data revealed that first-grade students were more successful than second-grade students in reaching grade-level proficiency in reading by the end of the school year. However, the educators who taught these students felt that the program was a success with both grade levels. Low-achieving students grew academically, even if they were not on their grade level by the end of the year. The students also grew in their confidence in their reading abilities. Teachers reported that once nonreaders or unmotivated readers could read, they wanted to read, were eager to read to adults, and would choose to read during their spare time. This research indicates an important aspect to consider when evaluating the results: the second-grade students were much further behind and had more progress to make in order to catch up to grade-level proficiency. These second-grade students had already had 2 years of formal education and lacked the skill set for 2 full school years. First-grade students had only been in school for 1 year, so they had less catching up to do. Knowing how far behind students already are is a key issue to consider when developing an intervention program. Results indicate that the earlier the intervention, the greater the progress.

Following the research process, this researcher interviewed all first- and second-grade teachers and teacher assistants, school administration, the school curriculum coach, and both Title I reading specialists. There was a marked difference in the sense of purpose perceived in the interview process with the small class size intervention teachers compared to that of the traditional classroom teachers. The observation was that the

small class size/intervention group was more passionate about what they had done and had more purpose and personal stakes in helping these students learn than what was noted in the interviews with traditional classroom teachers. The traditional classroom teachers did convey that they had a purpose and desire for their students to learn and succeed; however, the passion in their interview was not perceived to be at the level of what the intervention teachers, teacher assistants, and reading specialists expressed in their interviews. These intervention educators expressed the joy they had in working with their students. They spoke positively about the initiative, saying it was one of the best experiences they had experienced. They spoke of the students' increased self-efficacy and motivation, classes as being family-like settings, and the enjoyment they got from student successes.

This finding is important to support family involvement, and increased student self-efficacy is important for student success. School leaders wanting to increase student success should consider a variety of ways to include parents in the school environment and in the educational process similar to what was done in this case study, such as parent involvement events and providing parents with materials and resources and teaching the parents how to use these tools with their children. Parent involvement is a great way to share the learning experience and celebrate success with the students.

Discussion of Conclusions

Direct instruction was an effective instructional method to increase student learning. The teachers used direct, specific, well-planned, and purposeful lessons to instruct the students. The GATE program used by the Title I teacher was a scripted program, modified by the teachers and reading specialists collaborating and reviewing data to meet individual student needs.

Literature supports the benefits of direct instruction, small group instruction, early intervention for struggling readers, collaboration, and student motivation linked to academic success.

Purposeful instruction and early intervention is an important component in the process of helping students to become good readers. The type of instruction is especially important when working with at-risk learners. The Glossary of Education Reform (2014) defined direct instruction as an instructional approach that is structured, sequential, and teacher-led. Direct instruction can also be a presentation of the content to students from the teacher in lecture or demonstration form. In both of these examples, the teacher is directing the instruction to the learners.

By teaching a program using the direct instructional approach, teachers can clarify concepts and strategies, model and think aloud about making inferences, and help students determine the significance of text. Moore (n.d.) stated that in doing this, teachers expose the secrets of what good readers do. Once students know and can use reading strategies, teachers can then lessen the direct instruction and allow for more self-directed reading (Moore, n.d.).

The Kansas Center for Early Intervention implemented an RTI model in eight schools needing intervention for early grade low-performing readers. Initial outcomes and previous research together revealed improvements in early literacy abilities for students receiving secondary and tertiary interventions concentrating on specific instruction using highly coordinated, sequenced curriculum in small groupings (Kamps et al., 2008).

Conclusions from the study by Kamps et al. (2008) suggested that intervention resulted in significant improvements for participating students. Direct instruction

emerged to be of more value for phonemic awareness and decoding skills. These results sustain previous research noting the efficacy of highly structured, precise instruction for early at-risk readers. The most significant advancement was exhibited by student participants in small groups using direct instructional curriculum programs. These outcomes support other reports endorsing evidence-based programming and specific instruction in early elementary grades for at-risk readers, together with intensive intervention for high-risk student groupings (Kamps et al., 2008).

In this case study, direct instruction was used for intervention. This program, for the most part, was scripted. Scripted, research-based programs such as the GATE program are beneficial for most struggling readers. The Title I teacher used the GATE program but made adjustments based on student needs. It is important for schools looking to enhance their literacy program or to implement an intervention program to know what type of instruction is most effective for struggling readers. In this case, direct instruction using a modified, scripted program was beneficial to student progress.

Throughout the course of the school year for both years, students were provided literacy instruction in a direct-instructional method. The majority of students made gains in their DIBELS composite scores from the beginning of the year to the end of the year. All students in first grade in the initial year showed gains in their DIBELS composite scores. In the second year for first grade, only one student did not make positive gains in the DIBELS score. In second grade, there was one student each year who did not show growth in his/her scores. The data show that the majority of students who were instructed using the direct instructional method made positive growth when assessed using the DIBELS assessment method, even if they were not considered to be on grade level.

Small class size with small group intervention allowed for the three educators in

each classroom to focus their intensive intervention lessons on a small number of students and to specifically focus on no more than four students at a time. This allowed students to receive specific instruction and also provided the teacher with more immediate access to students as they saw and heard students learn and work on a more individual basis. The small groups provided opportunities for teachers to know what the students knew and not allow these students to simply slip through the cracks, as could have happened if they were in a traditional classroom setting.

Collaboration between teachers established better instruction for students. The teachers met frequently to analyze data; review and develop materials; and reflect and plan for quality, purposefully instruction. This reflective and proactive collaboration allowed for teachers to hone their differentiating and teaching skills to improve student learning.

Collaboration with families established a greater bond between the school and home. A child's education takes more than just what they get from school. To successfully reach a child, it takes the school and parent involvement to nurture the student's growth. Providing students with multiple areas of support can boost their self-esteem and confidence in their academic abilities.

Homan et al. (2001) referred to a study noting achievement with groups of three in the mid-1990s. When those teachers implemented a new program with large student groups, they determined it was not efficacious. Consequently, the teachers dropped the size of the groups to three students and experienced greater success. The large group size made it too difficult for the teachers to provide specific feedback in a timely manner and lessened student involvement. An appropriate arrangement for early intervention in literacy appears to be a smaller group of three students (Homan et al., 2001).

Although one-to-one lessons are the ideal intervention plan for both children and teachers, it is important for schools to meet the needs of a large number of struggling readers. Results with the small group model for all validate the sustained study of small groups for early literacy intervention. Offering both models, one-to-one and small group, is suggested (Homan et al., 2001).

A significant discovery in Kamps et al.'s (2008) research was that schools were able to successfully facilitate student interventions in early grades before the learning difficulties became too detrimental to students, causing them to fall behind in reading and have increased risks of catching up to or reaching the level of grade-level peers. The conclusions coincided with previous outcomes from research documenting that the capability of schools to apply intervention programs in a timely manner for all at-risk students with reading problems greatly relies on the success of their application of the RTI model and the school's capability to uphold staff execution of evidenced-based practices. Factors that seemed to increase program execution efforts involved early screening and identifying at-risk students to meet the three-tiered model requirements, innovative and adaptable scheduling to allow for adequate time for small group instruction, instruction taught by a strong collection of early elementary teachers involving special area teachers and general education teachers to combine resources to the intervention groups, access to systematic curriculum, very detailed instruction in early literacy skills, and procedures for using data to progress monitor and make intervention placements and decisions based on the data (Kamps et al., 2008).

Literacy research provided information acknowledging agreements that early identification and management is the most successful strategy for the prevention of learning disabilities in reading for early elementary school students. Students identified

as exhibiting poor reading skills are at a higher risk of ongoing reading difficulties as they go through their educational career. Intervention programs should provide enough flexibility so that teachers can make them their own and be strong enough to allow for disaggregating student results. Intervention programs should always align with state and local curriculum standards. In addition, teachers should be provided with scheduled time to plan and collaborate with colleagues in order for the program to maintain effectiveness (Menzies et al., 2008).

It is important that teachers conduct weekly discussions about resources and student participation. With proper planning and discussion, teachers become more productive with instructional time and more successful in limiting the amount of time wasted on noninstructional tasks. This purposeful planning allows the lesson to provide more time for reading and writing (Homan et al., 2001).

The study by Menzies et al. (2008) validated the capability of teachers to apply research-based instruction in a strong and effective way. The researchers gave credit for the successfulness of the model to the fact that the school staff assisted in the creation of the intervention program and then sustained and supported its implementation. Meeting collaboratively to discuss planning and review data helped teachers to plan appropriate instruction and also added new information and ideas to their professional skill set. Coaching from the literacy coach also provided the teachers with support in using proven instructional strategies and assisted in analyzing data and driving instruction (Menzies et al., 2008).

Inclusively, the teachers were affirmative about the intervention process. The teachers reported that it took additional time to make plans for the teacher assistants, analyze data, and to meet collaboratively. Teachers were excited that their students were

able to achieve academic success because of the intensive instruction. As teachers become more skilled at implementing an intervention model, preparing for instruction, and evaluating data as a regular part of their daily actions, they will expend less effort. It could be possible for teachers to see the benefits of progress monitoring to drive instruction as so important that they will use these approaches even if funding and support is cut (Menzies et al., 2008).

Implications of using small class size, small group instruction, and collaborative planning can yield improved student success. In this study, the intervention teachers collaborated frequently. It was important for them to frequently assess students, to know where the students were, and to have a plan to address any and all student needs. By collaborating frequently, the classroom teacher and the reading specialist were on the same page and had specific, purposeful plans for the students.

Intervention with a small group of students can be extremely beneficial because the teacher can have more uninterrupted time, and the student gets more exposure to the instruction with specific feedback. Small numbers allow for the facilitator to reach the students and their needs better without a student getting lost in the shuffle of large numbers. The teacher can better determine if the student is grasping the concepts and respond more quickly in a small setting.

DuFour, DuFour, Eaker, and Many (2010) cited the National Education Association on collaboration affirming that high-performing schools promote collaboration and support interactions between all staff. In these schools, teachers and staff collaborate to eliminate obstacles to student learning and meet regularly to discuss effective teaching and learning approaches. Collaborative planning is important as well in meeting student needs. When teachers plan collaboratively, they can use the data and

plan for instruction that is most appropriate for students. They can also determine in what way to best instruct the students. Teachers can pull from each teacher's skill set to plan and deliver instruction. Teachers can get creative with how to divide up student groups and who will teach what. Collaboration can allow for more meaningful data discussion, planning, and instruction. DuFour et al. stated, "the purpose of collaboration – to help more students achieve at higher levels – can only be accomplished if professionals engaged in collaboration are focused on the right work" (p. 119).

In addition to the instructional piece, student motivation also plays a vital role in students reading. Motivation is an important link to the reading practice. Students who do not read as often or practice reading frequently do not become proficient readers. The frequency of reading is critical for a child to increase recognition of sight words, vocabulary knowledge, fluency, ability to comprehend text, and basic reading skills. To become a fluent reader, a student must be motivated to read frequently. Further, Wigfield and Guthrie found that students with low motivation for reading were reading about a third as much as highly motivated students outside of the school setting (Morgan et al., 2008).

Morgan et al. (2008) stated one reason for poor readers to possess poor motivation is because they have repeated experiences of failure in obtaining reading skills. According to Stanovich, consistent reading failure initiates a "casual chain of escalating negative side effects" (Morgan et al., 2008, p. 364). Additionally, students with lower reading skills were more likely to avoid doing a reading task than the highly skilled students.

The motivation to engage in reading activities tends to be less for the students at risk for reading failure. It is typical for these students to possess a bad self-concept, feel

a greater sense of helpless, and avoid activities that require reading at a greater rate than their peers. It has been proposed in some research that reduced motivation could be an essential component of reading failure. If interventions only target reading problems without simultaneously focusing on the student's lack of motivation, the instruction could be unsuccessful in the prevention of long-term reading failure (Morgan et al., 2008).

In as early as mid-year, first-grade struggling reading students already perceive reading as very difficult, view themselves as less capable readers, and have negative attitudes towards reading when compared to higher achieving students; therefore, low-skilled students' intrinsic motivation differed significantly from the high intrinsic motivation seen in higher achieving students (Morgan et al., 2008).

Instruction in reading improves comprehension when students have a strong level of engagement and motivation. Higher-order thinking is used when students view reading as an opportunity to gain new knowledge and see this as the goal of reading, to comprehend and to retell findings. Self-efficacy is influenced by success in reading. "Unless students believe they can produce desired effects by their actions, they have little incentive to act" (Afflerbach et al., 2013, p. 441).

Studies show that successful reading teachers at the elementary level nurture student engagement with text, shape self-efficacy, and provide wide-ranging efforts to make reading and reading instruction appealing. Students who exhibit high self-efficacy levels see problems as tasks to be overcome and exert more effort when challenged. Motivated students read more, engage in a larger variety of texts, and persist even when reading gets more difficult. Those who believe they can succeed at reading tasks, often do so (Afflerbach et al., 2013).

A strong indicator of achievement in upper grades is reading proficiency in early

elementary school. Students with low motivation typically display and maintain poor performance in reading tasks. Research shows that encouraging student motivation in reading can improve the reading ability of struggling readers. As students develop their skills in reading, they begin to think confidently about their abilities to read, consequently improving the self-concept they have as readers (Melekoglu, 2011).

Student self-efficacy was an essential aspect of student success in this case study. It was evident from the interview portion that it was important for students to experience success, celebrate those successes, and continue to grow academically, knowing that they can be successful readers. A contributing factor to the student self-efficacy was the teacher's determination for the students to be successful. The teachers involved in the intervention understood their role and the need for all of their students and wanted them to achieve. The teachers in this case study noted the excitement from students when they were successful and therefore increased their desire to continue to become better readers. The students went from being nonreaders or unmotivated readers to being self-motivated to read to anyone who would listen to them read. This is important because in the early grades, students learn to read; but as they continue on, students must read to learn. Therefore, reading on grade level is important for students.

Implications

Administrators at the district and site level could use the research from this case study to evaluate best practices for literacy intervention in developing a plan to address how to best meet the needs of at-risk students. There is research to support early intervention, small groups, and motivation as being the major keys to student success.

Educators can use the information to plan small-group instruction, capitalize on the benefits of collaboration, and determine programs and materials for struggling

readers. In the interview with the traditional teachers as well as intervention teachers, it kept coming up that the students enrolled in the intervention classes would have been those students who would have "slipped through the cracks" in a traditional classroom setting. If teachers can identify these students and plan for effective small-group instruction, students can get the help and support they need at the earliest detection. By having a variety of supports in place, one can increase a child's confidence in his/her own ability to be successful academically and can help him/her excel in life.

Limitations

Limitations of the case study include the small number of participants (students and educators) used in the study and the study only taking place at one school site. Another limitation was not including a student or parent response portion. This portion was not included due to the research being conducted ex post facto of the intervention program.

Recommendations

One recommendation would be to begin intervention earlier than second grade. Even though the second-grade students did make academic growth, they were already considerably farther behind than peers. If educators can identify at-risk students and intervene earlier on in their education, students will not have as much ground to make up.

Another recommendation would be to track the progress of the students who were in the intervention class to see if the academic success is sustained. Information gathered from tracking those students could provide insight into how to support students who enter a grade not achieving on grade level. Schools could plan a way to intervene early but also to offer continued rigorous support for struggling readers as they progress through elementary school.

A final recommendation would be to develop a master schedule for the school that allows for adults to be used with children as much as possible and develop methods of making sure that small groups are used daily and effectively. Once again, early identification is key. The master schedule could be developed with a focus in mind of how to best meet the needs of all students by using staff wisely.

This recommendation is based on the researcher's current experience in an elementary school using an inclusion model where each day Title I staff members go into all kindergarten and first-grade rooms and work in small group literacy centers. During this time, there is a teacher-led center, a Title I staff-led center, teacher assistant-led center, and an independent center. Through data review and cooperative planning, students are placed in groups where they will be instructed on skills to meet their needs. Using this method, all students in kindergarten and first grade receive small group and direct instruction. In addition, during grade-level planning times, teacher assistants are scheduled to other grade levels to assist in small group work. This method permits a better use of staff time as it is concerned with student instruction.

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Appendix A

Educator Interview Questionnaire - Teacher

For the last two years of teaching (first grade/second grade) describe the following from your classroom perspective …

Your class size

Literacy/reading curriculum

How you planned for reading instruction

Your methods (delivery) for instruction

How you progress monitored students

How you used data

How the RTI model was used

Reading resources

Reading interventions

Any changes noticed in students in regards to reading

Strengths to your classes reading program (traditional verses small/inclusion class)

Weaknesses to your classes reading program (traditional verses small/inclusion class)

Any additional information

Appendix B

Educator Interview Questionnaire – Teacher Assistants

For the last two years of teaching (first grade/second grade) describe the following from your classroom perspective ...

Literacy/reading curriculum

How you are involved in planned for reading instruction

Your methods for instruction (whole class, small group)

Reading resources

Reading interventions

Grade level literacy/reading program

Any changes noticed in students in regards to reading

Strengths to reading program

Weaknesses to reading program

Any additional information

Appendix C

Educator Interview Questionnaire – Administrator/Curriculum Coach

For the last two years, describe the following for the first and second grade classrooms in regards to literacy/reading instruction…

Class size

Literacy/reading curriculum

Planning for reading instruction

Methods for instruction

Progress monitored students

Use of data

How the RTI model was used

Reading resources

Reading interventions

Grade level literacy/reading program

Any changes noticed in students in regards to reading

Strengths to reading program

Weaknesses to reading program

Any additional information