STUDENTS WITH DISABILITIES READING WELL WITH READ WELL

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Students With Disabilities Reading Well With *Read Well*

A Field Study

Presented to

The College of Graduate Studies

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In Partial Fulfillment

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Education Specialist

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To the College of Graduate Studies:

We are submitting a field study written by Barbara A. Waite entitled "Students with Disabilities Reading Well With *Read Well*." We have examined the final copy of this field study for form and content. We recommend that it be accepted in partial fulfillment of the requirements for the degree of Education Specialist.

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Abstract

Students with Disabilities Reading Well with *Read Well*

The focus of this study was to determine the effectiveness of the *Read Well* program as an intervention tool with students who have disabilities who are struggling readers. The Gray Oral Reading Test (GORT-4) was used to test for increase in student comprehension. The Dynamic Indicators of Basic Early Literacy Skills (DIBELS) was used to test for increase in fluency. Data collected for this study included 204 students in grades K-4 from 18 elementary schools.

The results of this study revealed the effectiveness of the *Read Well* program for students with disabilities. There was not a difference in learning shown on *Read Well,* GORT-4, or DIBELS based on disability. There was not a difference in growth shown on *Read Well* or DIBELS based on gender. There was a difference in learning shown on GORT-4 based on gender. Females improved more than males.

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CHAPTER I

Introduction

As a nation we are challenged to ensure our children grow to become successful and productive members of a global society. President Obama signed the American Recovery and Reinvestment Act (ARRA), into law February 2009. The ARRA provides financial support for states that demonstrate strategies that increase "improved results for students, long-term gains in school and school system capacity, and increased productivity and effectiveness" (US Department of Education, 2011). The ARRA provides funds for the "Race to the Top" competitive grants program. Key elements for states to be able to compete and receive funds are listed below and were retrieved from the United States Department of Education, Race to the Top Executive Summary, November 2009.

> The ARRA provides $4.35 billion for the Race to the Top Fund, a competitive grant program designed to encourage and reward States that are creating the conditions for education innovation and reform; achieving significant improvement in student outcomes, including making substantial gains in student achievement, closing achievement gaps, improving high school graduation rates, and ensuring student preparation for success in college and careers; and implementing ambitious plans in four core education reform areas:
>
> · Adopting standards and assessments that prepare students to succeed in college and the workplace and to compete in the global economy;
>
> · Building data systems that measure student growth and success, and inform teachers and principals about how they can improve instruction;

> · Recruiting, developing, rewarding, and retaining effective teachers and principals, especially where they are needed most; and
>
> · Turning around our lowest-achieving schools. (U.S. Department of Education, Race to the Top Executive Summary, 2009 p. 2, para. 2)
>
> Race to the Top will reward States that have demonstrated success in raising student achievement and have the best plans to accelerate their reforms in the future. These States will offer models for others to follow and will spread the best reform ideas across their States, and across the country. (U.S. Department of Education, Race to the Top Executive Summary, 2009, p. 2, para. 3)

It was announced in March of 2010 that the state of Tennessee was one of the first to be awarded funds under the "Race to the Top" competition. In the "Race to the Top" executive summary many key components needed to be addressed by states in order to compete. Two components that are related to this research are as follows:

> Priority 3: Invitational Priority – Innovations for Improving Early Learning Outcomes.
>
> The Secretary is particularly interested in applications that include practices, strategies, or programs to improve educational outcomes for high-need students who are young children (pre-kindergarten through third grade) by enhancing the quality of preschool programs. Of particular interest are proposals that support practices that (i) improve school readiness (including social, emotional, and cognitive); and (ii) improve the transition between preschool and kindergarten. (p. 4)

> Priority 5: Invitational Priority -- P-20 Coordination, Vertical and Horizontal Alignment.
>
> The Secretary is particularly interested in applications in which the State plans to address how early childhood programs, K-12 schools, postsecondary institutions, workforce development organizations, and other State agencies and community partners (*e.g.*, child welfare, juvenile justice, and criminal justice agencies) will coordinate to improve all parts of the education system and create a more seamless preschool-through-graduate school (P-20) route for students. Vertical alignment across P-20 is particularly critical at each point where a transition occurs (*e.g.*, between early childhood and K-12, or between K-12 and postsecondary/careers) to ensure that students exiting one level are prepared for success, without remediation, in the next. Horizontal alignment, that is, coordination of services across schools, state agencies, and community partners, is also important in ensuring that high-need students (as defined in this notice) have access to the broad array of opportunities and services they need and that are beyond the capacity of a school itself to provide. (U.S. Department of Education, Race to the Top Executive Summary, 2009 p. 5)

Torgesen, (2000) noted employers are expecting adults who can read and comprehend well, therefore those who do not acquire proficient reading skills will be at a disadvantage when seeking employment in a highly competitive nation. Students need to 'learn to read' before they 'can read to learn'. Reading to learn is the ultimate goal for all students. It begins with their ability to listen and understand a story, then utilizing these critical reading skills to comprehend information across various subject areas. For all

student to 'read to learn' it is important that an early reading foundation be established. The National Reading Panel: *Teaching Children to Read-Reports of the Subgroups* (2000) reported the need of five specific areas of concentration for effective reading instruction in their summary report, Teaching Children to Read. These five areas begin with phonemic awareness, teaching a student to break apart and manipulate sounds in words. Phonics is another area that teaches students that these sounds represent letters that can be blended to form words. Reading fluency is another area, which includes reading vocabulary and the ability to comprehend word meaning at the same time.

The Nation's Report Card (2009) shows our nation's fourth grade students have increased their average reading scores from 1992 to 2009. This increase was reported as a scale score of 217 in 1992 to 221 in 2009. As a nation, 33% of fourth graders scored below basic in reading in 1999. Of Tennessee's fourth graders, 37% scored below basic in reading in 1999. There is not a unique set of data for our students in the earlier grades, although the importance of early interventions is key to being proactive instead of being reactive to students' reading difficulties.

With the importance of "closing the achievement gap" for students in varying demographics, it is extremely important not to overlook students identified with a disability. These students often have difficulty learning to read. There are many and varied reasons for this, depending on the type of disability and its severity. To ensure all students receive the best instruction possible it is important that research based methods and tools be used to help them achieve reading success.

The next step to consider is the best possible programs and strategies to ensure students identified with a disability receive the appropriate educational intervention. The National Reading Panel: *Teaching Children to Read-Reports of the Subgroups* (2000)

indicated five important areas of reading instruction. These five components are phonemic awareness, phonics, fluency, vocabulary, and comprehension. These reading areas when addressed may increase student proficiency and mastery of skills by students who are identified with a disability.

This study will investigate the *Read Well* program as an intervention tool, and its ability to have a positive impact on students with disabilities overall reading fluency and comprehension.

Statement of the Problem

With the enactment of 'No Child Left Behind' (NCLB), the nation is charged with ensuring that all students read on grade level by the end of third grade. This includes our students with disabilities. Also, with the state of Tennessee receiving "Race to the Top" funds, we are responsible for "practices, strategies, or programs to improve educational outcomes for high-need students who are young children" (U.S. Department of Education, Race to the Top Executive Summary, 2009, p. 4, para. 4). As well Tennessee must address the smooth transition of all students from preschool to elementary, elementary to middle school, middle to high school, and from high school to college or the workforce (U.S. Department of Education, Race to the Top Executive Summary, 2009, p. 5, para. 2).

Purpose of the Study

The purpose of this study is to investigate the *Read Well* program as an early intervention tool for students with disabilities. First, this research will determine what, if any, growth students with disabilities make as a result of being enrolled in the *Read Well* program. Secondly, this research will examine the fluency and reading comprehension gains, if any, made by students of varying disabilities and gender while participating in

the *Read Well* program. Specifically, this research will examine the fluency gains based on the Dynamic Indicators of Basic Early Literacy Skills (DIBELS) and reading comprehension gains based on the Gray Oral Reading Test-4 (GORT-4).

The benefits of the *Read Well* program are described on the Voyager Learning website (http://www.voyagerlearning.com/readwell/curriculum.jsp) as:

> It meets the student at his or her skill level and provides daily instruction in the five essential components of reading. Explicit, systematic instruction guides students to master the foundational reading skills necessary for fluent, expressive reading with a high level of comprehension. (para. 1)

The Dynamic Measurement Group website (http://dibels.org/dibels.html) stated that the Dynamic Indicators of Basic Early Literacy Skills (DIBELS) "are designed to be short (one minute) fluency measures used to regularly monitor the development of early literacy and early reading skills" (para. 1).

Significance of the Study

The *Read Well* program will be evaluated to explore which students, based on specific disability and gender, show growth within the program, as well as make fluency and reading comprehension gains. This study will also look at the rate of gains in students with disabilities in both fluency and comprehension when using *Read Well* as an intervention. This information will enable one Middle Tennessee School System to make a decision about continued use of the *Read Well* program as an intervention tool.

Research Questions

The following research questions will guide this study:

1). Do students with disabilities experience reading fluency gains based on the results of the Dynamic Indicators of Basic Early Literacy Skills (DIBELS) after participation in the *Read Well* program?

2). Do students with disabilities experience reading comprehension gains based on the results of the Gray Oral Reading Test-4 (GORT-4) after participation in the *Read Well* program?

3). Do students with disabilities, in terms of types of disabilities, experience reading fluency gains based on the results of the Dynamic Indicators of Basic Early Literacy Skills (DIBELS) after participation in the *Read Well* program?

4). Do students with disabilities, in terms of types of disabilities, experience reading comprehension gains based on the results of the Gray Oral Reading Test-4 (GORT-4) after participation in the *Read Well* program?

5). Do students with disabilities, in terms of gender, experience reading fluency gains based on the results of the Dynamic Indicators of Basic Early Literacy Skills (DIBELS) after participation in the *Read Well* program?

6). Do students with disabilities, in terms of gender, experience reading comprehension gains based on the results of the Gray Oral Reading Test-4 (GORT-4) after participation in the *Read Well* program?

Hypotheses

To test the following hypotheses, Dynamic Indicators of Basic Early Literacy Skills (DIBELS) will be used to measure reading fluency gains and the Gray Oral Reading Test-4 (GORT-4) will be used to measure reading comprehension gains. The null hypotheses for this study are the following:

1). There will be no statistically significant reading fluency gains on Dynamic Indicators of Basic Early Literacy Skills (DIBELS) for students with disabilities after participation in the *Read Well* program.

2). There will be no statistically significant reading comprehension gain on Gray Oral Reading Test-4 (GORT-4) for students with disabilities after participation in the R*ead Well* program.

3). There will be no statistically significant reading fluency gains on Dynamic Indicators of Basic Early Literacy Skills (DIBELS) for students with disabilities after participation in the *Read Well* program, in terms of disability type.

4). There will be no statistically significant reading comprehension gain on Gray Oral Reading Test-4 (GORT-4) for students with disabilities after participation in the *Read Well* program, in terms of disability type.

5). There will be no statistically significant reading fluency gains on Dynamic Indicators of Basic Early Literacy Skills (DIBELS) for students with disabilities after participation in the *Read Well* program, specifically in terms of gender.

6). There will be no statistically significant reading comprehension gains on Gray Oral Reading Test-4 (GORT-4) for students with disabilities after participation in the *Read Well* program, in terms of gender.

Limitations

The limitations of this study are the following:

1). This study is limited to the frequencies of the interventions.

2). This study is limited to number of types of disabilities.

3). This study is limited to number of participants by gender.

4). This study is limited to students in a resource/inclusion setting.

5). This study is limited to low incidences of disabilities due to not enough participants to be measured statically.

6). This study is limited to those with incomplete data.

Participants

Students participating in this study include the following:

1). Students in kindergarten through fourth grade who are identified with a disability and are enrolled in an inclusion classroom.

2). Student participation in the program is based on the *Read Well* placement test.

3). Student instructional level is based on the *Read Well* placement test.

Assumptions

In this study it will be assumed that:

1). All teachers participating followed fidelity to the program.

2). All students with disabilities were placed in a specific unit within the *Read Well* program based on a pre-test.

3). All teachers participating in the program used the data from unit tests to guide instruction in small groups to meet the individual needs of the students.

4). Professional development activities ensure that every teacher has the tools that he/she needs to help all students be successful in the program.

Definition of Terms

1). DIBELS - Dynamic Indicators of Basic Early Literacy Skills.

2). Fidelity - The degree of replication or adherence to the program guidelines delivered as intended by the original design.

3). GORT-4 - Gray Oral Reading Test-4.

4). Interventions- Modified instructions used to meet individuals student's needs of a specific content standard.

5). Program Evaluation - a process used to make quality decisions about the usefulness and/or the effects of program interventions.

6). Phoneme elision – a measure of phonological awareness.

7). *Read Well* Program - As described by the Voyager Learning website (http://www.voyagerlearning.com/readwell/index.jsp) is "the primary reading curriculum that adjusts to the needs of each student and builds the foundation for life long learning."

8). Special Education Student - a term that characterizes students who are identified with a specific disability under federal and state law and who receives direct special education services.

Chapter II
Review of the Literature

Reading is a fundamental skill that opens the doors for future learning. It is important for students to be able to read and comprehend in order to progress and become productive members of society. As a global society with high stakes testing being utilized to grade our students, teachers, schools, school systems, and states, we must be able to prove that our students are successful readers. First we must look at the five components of reading. Then, consider what impacts a student's ability to learn to read and comprehend. Finally, examine what research acknowledges as the best way to teach reading to all students.

Components of Reading

The National Reading Panel sums a volume of scientific research up best: *Teaching Children to Read-Reports of the Subgroups* (2000) indicated five major components of effective reading instruction. These five components are phonemic awareness, phonics, fluency, vocabulary, and comprehension. Reading programs must include an in depth curriculum and sound assessments tools of the five reading components. These components are tiered in order, from early reading learning to the complex reading learning. The Literacy Information and Communication System (LINCS) website, http://lincs.ed.gov/research/researchdef.html defines the five reading components as follows:

> Phonemic awareness is the ability to notice, think about, and work with the individual sounds in spoken words.
>
> Phonics is the relationships between the letters (graphemes) of written

language and the individual sounds (phonemes) of spoken language. Phonics instruction teaches learners to use these relationships to use and write words.

Fluency is the ability to read text accurately and quickly. When fluent readers read silently, they recognize words automatically. They group words quickly to help them gain meaning from what they read. They read aloud effortlessly and with expression. Fluency is important because it provides a bridge between word recognition and comprehension.

Vocabulary refers to the words we must know to communicate effectively. Vocabulary is also very important to reading comprehension. Readers cannot understand what they are reading without knowing what most of the words mean. Learning to read more advanced texts means readers must learn the meaning of new words that are not part of their oral vocabulary.

Comprehension is the reason for reading. If readers can read the words but do not understand what they are reading, they are not really reading. Good readers are both purposeful (they have a reason to read) and active (they think to make sense of what they read).

(LINCS, http://lincs.ed.gov/research/researchdef.html)

The National Reading Panel (NRP) was created at the request of the U.S. Congress in 1997 with the National Institute of Child Health and Human Development (NICHD) and the Secretary of Education. This panel of experts was created to determine the value of innumerable approaches to teaching reading. The panel reviewed approximately 100,000 research studies and narrowed them to meet the methodology it

had established. They also involved the public in five regional meetings to investigate concerns in the area of reading. The National Reading Panel: *Teaching Children to Read-Reports of the Subgroups* was completed in 2000.

The NRP: *Teaching Children to Read-Reports of the Subgroups* (2000) in its meta-analysis study used 52 studies with 96 treatment-control group comparisons and determined that phonemic awareness (PA) "was highly effective" (p. 2-5) in a variety of environments, as well as, types of learners and "was highly effective across all literacy domains and outcomes" (p. 2-3). Phonemic awareness is part of the larger picture of phonological awareness. Phonological awareness is the combining of sounds found in rhyming words, compound words, syllables, and onset-rimes (Tindall & Nisbet, 2010). Phonemic awareness is the ability to hear and manipulate sounds, which needs to be developed before a student is considered to have phonological awareness. Shanahan (2005) in a National Reading Panel Report: *Practical Advice for Teachers* noted, "young children differ greatly in their ability to hear individual sounds within words" (p. 9). When students are not able to segment sounds they are at a disadvantage when they begin the process of reading. It has been written numerous times that the English language is an "alphabetic language", meaning that the symbols of letters represent sounds (Shannahan, 2005). Many have used the terms phonemic awareness and phonics as synonyms. Phonics is the instruction of how letters and sounds work together to form words and how the words can be decoded (Shannahan, 2005).

The NRP: *Teaching Children to Read-Reports of the Subgroups* (2000) next identified 38 studies with 66 treatment-control groups and determined that systematic phonics instruction "have proven effective with children of different ages, abilities, and socioeconomic backgrounds" (p. 2-135). It also confirmed it was beneficial to improving

the reading skills of disabled readers. The NRP: *Teaching Children to Read-Reports of the Subgroups* (2000) described, "a systematic phonics instruction typically involves explicitly teaching students a prespecified set of letter-sound relations" (p.2-92). An executive summary by Jenkins and O'Connor (2001) found that teaching phonics using explicit instruction leads to significant outcomes in decoding.

To determine if fluency made a significant impact on overall reading the NRP: *Teaching Children to Read-Reports of the Subgroups* (2000) used 16 studies that focused on guided oral reading and independent silent reading, neither of which quantifies the number of words read per minute. With that being said, the NRP: *Teaching Children to Read-Reports of the Subgroups* (2000) did recognize that guided oral reading does have a "positive impact on word recognition, reading fluency, and comprehension" (p. 3-3). This seems to be an incomplete picture, as student's fluency rates have been illustrated through continued research to have a significant effect on reading comprehension for varied samples of students that involved elementary through high school age students (e.g., Binder, Haughton, & Bateman, 2002; Gabe, 2010; Chard, Vaughn, & Tyler, 2002; Ehri, 2003).

Oral and print vocabulary is important in a student's ability to read fluently. Their understanding of what is said and written is important to a student's ability to comprehend. To investigate comprehension the NRP: *Teaching Children to Read-Reports of the Subgroups* (2000) used 50 studies that included 21 different methods of instruction to teach vocabulary. It was noted that although increased vocabulary increases comprehension, there is still little known about the most effective way to teach vocabulary. The NRP: *Teaching Children to Read-Reports of the Subgroups* (2000)

noted, "vocabulary should be taught both directly and indirectly." with "repetition and multiple exposures," and provide for "active engagement" (p. 4-27). Technology also has a place in the development of vocabulary, as it is interactive and repetitive in nature. The NRP suggests that more studies on the topic of teaching vocabulary are needed to statistically prove its worth.

When looking at comprehension instruction the NRP: *Teaching Children to Read-Reports of the Subgroups* (2000) used 205 studies that met their criteria and noted 7 scientifically sound types of instructions for teaching reading comprehension. It suggested the following are teachable strategies, that when taught in a natural setting across various content areas reading comprehension is improved: comprehension monitoring, cooperative learning, graphic organizers, question answering, question generation, story structure and summarization. Studies have found that students who read with fluency and understanding of word meaning have a greater ability to comprehend the whole: sentence, paragraph, and text (Tindall & Nisbet, 2010; Vaughn & Thompson-Linan, 2003).

As a child develops, he learns to scoot before crawling, then crawling before walking, and walking before running. A student similarly needs to develop a systematic set of skills before their reading levels matches their verbal ability. The literature provided in the NRP: *Teaching Children to Read-Reports of the Subgroups* (2000) supports the need for a systematic approach to teaching students to read.

What Impacts Reading Ability?

To discover what impacts reading ability we must look at the nation's trends in overall reading scores. The Nation's Report Card (2009) reports no significant change in the nation's fourth grade average reading scores from 2007 to 2009. However, there was

an increase from 1992 to 2009. When investigating results of specific demographics, gender, race/ethnicity, and socio-economic status of families (measured by those eligible for the National School Lunch Program) followed the trend of the nation's average reading scores with an increase for those demographics from 1992 to 2009. The report for students with disabilities scores dated back to 1998 but it also indicates the same, an increase in the nation's average reading scores from 1998 to 2009.

Although these statistics seem promising at first glance, when we dig deeper we find major areas of concern for students in these demographic areas. Using the Nation's Report Card (2009) to examine gender, females consistently out scored males from 1992 to 2009. When exploring the results for race/ethnicity it is important to be aware of how the categories were reported. Black included African American, Hispanic included Latino, Asian/Pacific Islander included Native Hawaiian, and American Indian included Alaskan Native. Students in the White and Asian/Pacific Islanders categories scored better than students in American Indian, Hispanic, and Black categories from 1992 to 2009. In regard to those students eligible for the Nation School Lunch program and those not eligible, the students in the not eligible category scored higher than those eligible from 1998 to 2009. The students with disabilities category did not include students with English as a second language, but those identified with an Individualized Education Plan (IEP) and those eligible under Section 504 of the Rehabilitation Act and the Americans with Disabilities Act. Students without disabilities out scored students with disabilities from 1998 to 2009. It is important to note here the amount of increased scores the students with disabilities acquired, a standard score increase of 14 for those with disabilities, compared to a standard score increase of 7 for those students with no disability from 1998 to 2009. This shows at least in the area of special education an

impact is being made, either by the way we test, and/or the way we teach students with disabilities. Even though there was a significant increase as a nation for fourth grade average reading scores from 1992 to 2009, we are not closing the gap in the area of gender, race/ethnicity, or social economic status (The Nation's Report Card, 2009).

When looking specifically at the state of Tennessee's fourth grade average reading scores compared to the nation's fourth grade average reading scores, the Nation's Report Card indicated no significant differences in the categories of students with disabilities, Hispanics, or males. The Nation's Report Card however, showed lower scores for the categories of Black, White, and female students as compared to the national average. Scores for American Indian and Asian/ Island Pacific were not available for the state of Tennessee (The Nations Report Card, 2009).

What is Considered Necessary to Improve Overall Reading Ability?

In order to improve a student's overall reading ability we must go back to the five components of reading; phonemic awareness, phonics, fluency, vocabulary, and comprehension. A reading program or intervention must incorporate all of these areas on various levels and at various times within a student's learning process. Students who begin to fall behind early in reading instruction tend to continue to lag farther and farther behind their peers. This is why teachers, schools, school districts, and states need to be able to identify students who are having reading difficulty in the early elementary years (Jenkins & O'Connor, 2001), to provide a systematic and explicit approach to meeting student needs (Coyne, Kame'enui, & Simmons, 2004). Torgesen (2000) suggested that children who have a difficult time recognizing words by sight and cannot phonetically decipher them continue to be poor readers. Students need to "learn to read" before they can "read to learn," which is why it is paramount that we as a society find ways to help

low and struggling readers early.

One way to assist students with this is to help them to achieve reading fluency. Binder, et al. (2002) suggested using effective reading practices with clear goals for short periods of time and on-going progress monitoring of specific goals. They also stressed the need for reading fluency as an essential skill without which students are at a disadvantage for reaching their full learning potential.

Even with all these variables in place, students with disabilities continue to struggle and have a need for more intense reading instruction. In order to reach the level of reading fluency needed for comprehension, students with an identified learning disability need specialized instruction in the areas of phonemic awareness, and phonics (Ehri, 2003, Jenkins & O'Connor, 2001). Chard, et al. (2002) explained, "a common core problem" in the area of fluency "is the ability to read sight words, decode words, and read phrases automatically and rapidly" (p. 386). The need for acquiring "automaticity" in reading has been widely discussed and studied (Binder et. al. 2002; Doughty, Chase & O'Shields 2004; Grabe, 2010). When students spend a considerable amount of processing resources on sounding out a word, the less processing there is for obtaining comprehension (Jenkins & O'Connor, 2001). Research on the most effective teaching models for teaching young children to read is abundant.

Coyne et al. (2004) article *Improving Beginning Reading Instruction and Interventions for Students with LD: Reconciling "All" with "Each"* suggested the notion that "all children will learn to read by third grade" interferes with the Individuals with Disabilities Education Act (IDEA) of 1990, which emphasizes instruction must meet "each" student's individual needs. They suggested "communicating a common commitment and a shared responsibility" for all students, "a school wide reading

improvement model" (p. 233) which offers differentiated instruction for all students, and "goals and assessments" (p. 234) that address long-term goals through the use of curriculum-based measures.

Torgesen, et al. (1999), in *Preventing Reading Failure in Young Children with Phonological Processing Disabilities: Group and Individual Responses to Instruction* investigated three instructional approaches for the prevention of reading disabilities in young children with weak phonological skills. Two were contrasted by their intensity of phonemic decoding and the third approach supported the classroom reading program. The method and procedures of the study were the following:

> One hundred eighty children who obtained the lowest combined scores on the letter naming task and the phoneme elision task, and who had an estimated Verbal Intelligence score above 75, were selected for the study. Children were randomly assigned within school to one of four conditions: (a) a no-treatment control (NTC) condition, (b) the regular classroom support (RSC) condition, (c) the embedded phonics (EP) condition or (d) the phonological awareness plus synthetic phonics (PASP) condition. Each of the 13 schools had roughly equal numbers of children in each instructional condition. (Torgesen, et al. p. 581)
>
> Children in the treatment conditions were provided with four 20-min sessions of one-on-one instruction per week for 2 and one half years, beginning in the second semester of kindergarten. Two 20-min sessions were led by certified teachers and two were led by aides following the teacher's written instructions to practice what the children had learned in the previous sessions. (Torgesen, et al. p. 582)

The results indicated the students "in the PASP group had significantly stronger skills than those in the EP group in phonological awareness" (Torgensen, et al. 1999, p. 589). When all groups were compared, the PASP group did better on word level reading skills than the students in the EP, RSC, and NTC groups. Torgesen (2000) suggested the research showed that by applying what we already know about reading instruction, more than 50% of students who are at risk for reading failure could be helped. There is still a need for more long-term studies on the effectiveness of intervention programs for those students with a disability and those at risk for a reading disability (Torgensen, 2000).

Chad, et al. (2002) in their *Synthesis of Research on Effective Interventions for Building Reading Fluency with Elementary Students with Learning Disabilities* investigated 104 studies, of which 24 met the following criteria: "The students targeted for the intervention were elementary-age students with a learning disability (LD), the purpose of the study specifically targeted reading fluency, and the study was published in the last quarter of the 20th century" (p. 388). The results found improvements in reading rate, accuracy and comprehension with the use of repeated readings with corrective feedback, and a fluent reading model.

A study by Foorman, Fletcher, Francis, Schatschneider, and Paras (1998) *The Role of Reading Instruction in Learning to Read: Preventing Reading Failure in At-Risk Children* investigated first and second graders receiving Title I services and three kinds of reading programs; direct code, embedded code, and implicit code. In the direct code method "direct instruction in letter-sound correspondence was practiced in decodable text" (p. 37). The imbedded code method used "less direct instruction in systematic sound-spelling patterns embedded in connected text" (p. 37). In implicit code method, the use of "implicit instruction in the alphabetic code while reading connected text"

(p. 37) was used. There were 285 students who were eligible for Title I services in 19 elementary schools in an urban setting (Foorman, et al. 1998). The results were:

> Children receiving direct code instruction improved in word reading at a faster rate and had higher word-recognition skills than those receiving implicit code instruction. Effects of instructional groups on word recognition were moderated by initial levels of phonological processing and were most apparent in children with poorer initial phonological processing skills. Group differences in reading comprehension paralleled those for word recognition but were less robust. Groups did not differ in spelling achievement or in vocabulary growth. Results show advantages for reading instructional programs that emphasize explicit instruction in the alphabetic principle for at-risk children. (Foorman, et al. 1998, p. 37)

A longitudinal study by Muter, Hulme, Snowling, and Stevenson (2004) entitled *Phonemes, Rimes, Vocabulary, and Grammatical Skills as Foundations of Reading Development: Evidence From a Longitudinal Study* set out to "assess the relative importance of grammatical abilities, phonological abilities and vocabulary knowledge as predictors of two separate aspects of reading (word recognition and comprehension) during children's first 2 years of learning to read" (p. 668). The study included 101 students just entering school from six North London state elementary schools. The summary of their results were as follows:

> Results are clear (a) in demonstrating the critical roles of phoneme sensitivity and letter knowledge for the development of early word recognition skills and (b) in demonstrating that for reading comprehension, as might be expected, vocabulary knowledge and grammatical skills play additional significant

roles. (Muter, et al. 2004, p. 679)

Through studying the literature, one can infer an effective strategy for reading instruction is a systematic reading program that addresses the need for prevention, by using effective progress monitoring tools that provide for quality feedback on instruction in the five reading component areas. A curriculum that focuses on phonemic awareness and phonics, which leads to increased fluency and therefore ultimately leading to comprehension. Without a quality classroom, effective reading instruction is difficult to accomplish. To ensure quality classrooms are in place Strickland (2002) suggested we look at the following areas: school and classroom organization, nature of the instruction, documenting and monitoring learning, home school connections, and professional development.

The Dynamic Indicators of Basic Early Literacy Skills (DIBELS)

The Dynamic Measurement Group available at http://dibels.org/dibels.html gives an overview of the Dynamic Indicators of Basic Early Literacy Skills (DIBELS). The website described DIBELS as "a set of procedures and measures for assessing the acquisition of early literacy skills from kindergarten through sixth grade. They are designed to be short (one minute) fluency measures used to regularly monitor the development of early literacy and early reading skills" (para. 1). DIBELS is a curriculum-based measurement (CBM) that is designed to measure an outcome, in this case, the five components of reading as established by the National Reading Panel report. Curriculum-based measures were explained by Elliott, Lee, and Tollefson (2001) as "measures developed and standardized in order to facilitate frequent, ongoing assessments of basic skills and formative evaluation of student progress" (p. 34). Deno (1985) explained the need for such a measurement to "decrease the separation between

measurement and instruction" (p. 221) as a means for decision-making. A CBM ensures a clear and concise communication of a student's strengths and weakness in a particular area for an ongoing period of time. Having a CBM that is quick to administer, easy to score, and produces significant data to use in making quality-teaching decisions for individual students is an essential tool for the classroom teacher, the school, the district and state.

CHAPTER III

Methodology

Learning to read is an essential early educational skill students need to acquire before future and more advanced learning can take place. National Reading Panel Report (National Institute of Child Health and Human Development [NICHD], 2000) reports that beginning reading begins with the five components of reading, phonemic awareness, phonics, fluency, vocabulary, and comprehension.

Early intervention programs are needed to meet the needs of all struggling readers. Students identified with a disability often do not demonstrate the growth needed to illustrate the closing of the achievement gap. Therefore, based on program research, one Middle Tennessee school system has begun to use the *Read Well* program as an intervention for students with disabilities who are struggling with early reading skills.

Participants

This study collected data from a Middle Tennessee school district. The school district covers 539 square miles, with a population of over 150,000. Information retrieved from the Tennessee Department of Education Report Card indicates there are 21 elementary schools within this district. For the school year 2009-10 roughly 50% of students eligible to receive services under an Individualized Education Plan (IEP), received accommodations for reading/language arts on State Tennessee Comprehensive Assessment Program (TCAP) in grades 3 through 5.

Students with disabilities who receive direct special education services for reading/language arts enrolled in this Middle Tennessee school system and are in grades kindergarten through fourth were given the *Read Well* placement test and then placed in the *Read Well* intervention program. The data used for this study was retrieved from 18

elementary schools with 29 special education teachers participating in the implementation of the *Read Well* program. These students were enrolled in inclusion classrooms. Students in self contained DD and CDC classes were not included in this study. This was to obtain comparisons of more similar students. Of the students tested, 295 students qualified for participation in the program. Due to students moving and/or being removed from the program, data on 246 students was used to begin this study. After further review 42 were eliminated due to insufficient data. The top four disabilities in terms of participants were Specific Learning Disability (SLP), Language Impaired (LI), Other Health Impairments (OHI), and Developmental Delay (DD). These groups were used to complete this study. Listed below is the disaggregated data of those students, their disabilities, and gender:

TABLE I: *Read Well* Participants

Males	Females	Total
135	69	204

TABLE II: Number of Participants by Primary Disability

SLD- Specific Learning Disability	LI- Language Impaired	OHI- Other Health Impairments	DD- Developmental Delay
75	57	23	21

Research Design

All identified students with disabilities in grades kindergarten through fourth who qualified through the *Read Well* placement test received 45 minutes a day of classroom reading instruction with their non-disabled peers at the grade level in which they were enrolled. Then these students received instruction in the *Read Well* program in a special

education setting for 30-45 minutes a day, with instruction provided by a qualified special education teacher. Each special education teacher teaching *Read Well* received two days of training using the *Read Well* program. Students were given instruction at a *Read Well* level based on the *Read Well* placement test no matter what time in the school year they entered the program.

Description of the *Read Well* Program:

The *Read Well* program in designed to be taught at the students' pace of learning. Below is Voyager's (http:??www.voyagerlearning.com/readwell/specialeducation.jsp) overview of the *Read Well* program, its benefits to students with disabilities, and benefits to teachers who implement the program.

> *Read Well* is the primary reading curriculum that adjusts to the needs of each student and builds the foundation for lifelong learning.
>
> *Read Well* meets the instructional needs of students identified for special education.
>
> · Explicit, systematic instruction
>
> · Instruction at both the word and text level
>
> · Lesson routines that maximize opportunities for mastery
>
> · Students learn and apply reading strategies
>
> · Engaging texts and topics connect with the reader
>
> · Flexible pacing ensures students have the time needed to master concepts and skills (Voyager Learning website, para. 3)

Read Well was developed by teachers for teachers, and meets the needs of special education instructors.

> · Easy-to-follow lesson plans that accommodate the diverse

learning needs of all students

- Extra Practice opportunities, Jell-Well Reviews, and Double Dosing strategies integrated into teacher material
- Quick, accurate assessments that ensure proper placement of students into small groups and provide appropriate instructional pacing (Voyager Learning website, para. 4).

Data Collection Procedures

Data was collected for students based on their assigned *Read Well* level. Student participation ranged from two months to one school year. Students who were able to read some words were also given the Gray Oral Reading Test-4 (GORT-4) and the Dynamic Indicators of Basic Early Literacy Skills (DIBELS) three times, at the beginning of the school year (BOY), middle of the year (MOY), and the end of the year (EOY). Due to students moving into and out of the school system throughout the school year, all scores for each student was not available to be analyzed in this study therefore these students were dropped from participation group. The Dynamic Measurement Group available at http://dibels.org/dibels.html stated that the Dynamic Indicators of Basic Early Literacy Skills (DIBELS) "are designed to be short (one minute) fluency measures used to regularly monitor the development of early literacy and early reading skills" (para. 1). It measures phonological awareness, alphabetic principle, fluency, vocabulary, and comprehension. The reliability is increased to .90 when 3-5 probes are used within days of each other.

The Gray Oral Reading Test-4 (GORT-4) is a tool to measure fluency and comprehension. Product summary, overview, norming sample, reliability/validity information was obtained at:

http://psychcorp.pearsonassessments.com/HAIWEB/Cultures/enus/Productdetail.htm?Pid=015-8116-577. The GORT-4 measures oral reading skills and was normed on a sample of more than 1600 students varying in ages for 6 to 18 years. The website states the following for the GORT-4 reliability and validity:

> The reliabilities of GORT-4 are high; all average internal consistency reliabilities are .90 or above. The test-retest study was conducted with all ages for which the test can be administered and illustrates the stability and reliability of the measure. The validity is extensive and includes studies that illustrate that GORT-4 can be used with confidence to measure change in oral reading over time (para. 4).

The pretest and posttest data from the *Read Well* program, the DIBELS and GORT-4 data were used to determine what, if any, fluency and comprehension gains students with disabilities made based on their participation of the *Read Well* program in this Middle Tennessee school system for the targeted academic year.

Statistical analyses were conducted to determine if the differences found were statistically significant.

Conclusions will be made from analysis of these statistical results and reported with recommendations in this field study, and will be reported back to the school system with recommendations this researcher gleans examining the results.

Chapter IV

Results

Research Questions

The following research questions guided this study:

1). Do students with disabilities experience reading fluency gains based on the results of the Dynamic Indicators of Basic Early Literacy Skills (DIBELS) after participation in the *Read Well* program?

2). Do students with disabilities experience reading comprehension gains based on the results of the Gray Oral Reading Test-4 (GORT-4) after participation in the *Read Well* program?

3). Do students with disabilities, in terms of types of disabilities, experience reading fluency gains based on the results of the Dynamic Indicators of Basic Early Literacy Skills (DIBELS) after participation in the *Read Well* program?

4). Do students with disabilities, in terms of types of disabilities, experience reading comprehension gains based on the results of the Gray Oral Reading Test-4 (GORT-4) after participation in the *Read Well* program?

5). Do students with disabilities, in terms of gender, experience reading fluency gains based on the results of the Dynamic Indicators of Basic Early Literacy Skills (DIBELS) after participation in the *Read Well* program?

6). Do students with disabilities, in terms of gender, experience reading comprehension gains based on the results of the Gray Oral Reading Test-4 (GORT-4) after participation in the *Read Well* program?

Hypotheses & Data Analyzed

The hypotheses examined and data analyzed for each are presented below:

Hypothesis 1 There will be no statistically significant reading fluency gains on Dynamic Indicators of Basic Early Literacy Skills (DIBELS) for students with disabilities after participation in the *Read Well* program.

TABLE III: One-Way Analysis of Variance - DIBELS Oral Reading Fluency (ORF) Growth BOY to EOY Level 2 and 3, MOY to EOY Level 1-T-Test

DIBELS Oral Reading Fluency Level	Number of participants	Mean	Standard Deviation	Degree of Freedom	T Ratio	P Value
Middle of the year (MOY) level 1	78	0.15	0.14	77	4.37	< .05
End of the year (EOY) level 1	78	0.18	0.15			
Beginning of the year (BOY) level 2	21	0.16	0.1	20	6.76	< .05
End of the year (EOY) level 2	21	0.16	0.1			
Beginning of the year (BOY) level 3	13	0.2	0.11	12	2.17	< .05
End of the year level (BOY) 3	13	0.3	0.16			

On reading fluency gains of students with disabilities using DIBELS-Oral Reading Fluency (ORF), an analysis of the data collected was run with a one-way ANOVA and a T-ratio of 4.37 for Level 1, 6.76 for Level 2, and 2.17 for Level 3 was found which was significant at or below the .05 level of confidence. This means that the hypothesis was rejected.

Hypothesis 2 There will be no statistically significant reading comprehension gains on Gray Oral Reading Test-4 (GORT-4) for students with disabilities after participation in the R*ead Well* program.

TABLE IV: One-Way Analysis of Variance - GORT-4 Growth BOY to EOY -T-Test

	Number of participants	Mean	Standard Deviation	Degree of Freedom	T Ratio	P Value
GORT-4 Beginning of the year (BOY)	203	9.1	3.63	202	7.72	< .05
GORT-4 End of the year (EOY)	203	11.23	4.83			

On reading comprehension gains of students with disabilities using GORT-4, an analysis of the data collected was run with a one-way ANOVA and a T-ratio of 7.72 was found, which was significant at or below the .05 level of confidence. This means that the hypothesis was rejected.

Hypothesis 3 There will be no statistically significant reading fluency gains on Dynamic Indicators of Basic Early Literacy Skills (DIBELS) for students with disabilities after participation in the *Read Well* program, in terms of disability type.

TABLE V: One-Way Analysis of Variance - DIBELS Oral Reading Fluency (ORF) Growth By Disability MOY to EOY Level 1-F-Test

Disability Type	Number of participants	Mean	Standard Deviation	Degree of Freedom	F Ratio	P Value
Specific Learning Disability	30	0.05	0.06	3	0.63	> .05
Language Impaired	26	0.04	0.05			
Other Health Impairments	7	0.05	0.03			
Developmental Delayed	7	0.01	0.08			

TABLE VI: One-Way Analysis of Variance - DIBELS Oral Reading Fluency (ORF) Growth By Disability BOY to EOY Level 2-F-Test

Disability Type	Number of participants	Mean	Standard Deviation	Degree of Freedom	F Ratio	P Value
Specific Learning Disability	11	0.07	0.03	3	0.67	> .05
Language Impaired	5	0.10	0.09			
Other Health Impairments	3	0.10	0.03			
Developmental Delayed	1	0.11	.			

TABLE VII: One-Way Analysis of Variance - DIBELS Oral Reading Fluency (ORF) Growth By Disability BOY to EOY Level 3-F-Test

Disability Type	Number of participants	Mean	Standard Deviation	Degree of Freedom	F Ratio	P Value
Specific Learning Disability	4	0.05	0.03	3	0.72	> .05
Language Impaired	3	0.06	0.01			
Other Health Impairments	2	0.04	0.13			
Developmental Delayed	4	0.18	0.25			

On reading fluency gains of students with disabilities in terms of disability type using DIBELS Oral Reading Fluency (ORF), an analysis of the data collected was run with a one-way ANOVA and a F-ratio of 0.63 for level 1, 0.67 for level 2, and 0.72 for level 3 was found which was not significant at or below the .05 level of confidence. This means that the hypothesis was not rejected.

Hypothesis 4 There will be no statistically significant reading comprehension gain on Gray Oral Reading Test-4 (GORT-4) for students with disabilities after participation in the *Read Well* program, in terms of disability type.

TABLE VIII: One-Way Analysis of Variance - GORT-4 Growth By Disability – F-Test

Disability Type	Number of participants	Mean	Standard Deviation	Degree of Freedom	F Ratio	P Value
Specific Learning Disability	75	2.01	4	3	0.97	> .05
Language Impaired	57	1.49	4.23			
Other Health Impairments	23	2.87	3.17			
Developmental Delayed	21	2.9	4.78			

On reading comprehension gains of students with disabilities in terms of disability using GORT-4, an analysis of the data collected was run with a one-way ANOVA and a F-ratio of 0.97 was found, which was not significant at or above the .05 level of confidence. This means that the hypothesis was not rejected.

Hypothesis 5 There will be no statistically significant reading fluency gains on Dynamic Indicators of Basic Early Literacy Skills (DIBELS) for students with disabilities after participation in the *Read Well* program, specifically in terms of gender.

TABLE IX: One-Way Analysis of Variance - DIBELS Oral Reading Fluency (ORF) Growth By Gender MOY to EOY Level 1-T-Test

Gender	Number of participants	Mean	Standard Deviation	Degree of Freedom	T Ratio	P Value
Male	47	0.04	0.07	76	1.09	> .05
Female	31	0.06	0.02			

TABLE X: One-Way Analysis of Variance - DIBELS Oral Reading Fluency (ORF) Growth By Gender BOY to EOY Level 2-T-Test

Gender	Number of participants	Mean	Standard Deviation	Degree of Freedom	T Ratio	P Value
Male	15	0.64	0.05	19	1.94	> .05
Female	6	0.11	0.03			

TABLE XI: One-Way Analysis of Variance - DIBELS Oral Reading Fluency (ORF) Growth By Gender BOY to EOY Level 3-T-Test

Gender	Number of participants	Mean	Standard Deviation	Degree of Freedom	T Ratio	P Value
Male	10	0.10	0.05	11	-0.46	> .05
Female	3	0.05	0.09			

On reading fluency gains of students with disabilities in terms of gender using DIBELS Oral Reading Fluency (ORF), an analysis of the data collected was run with a one-way ANOVA and a T-ratio of 1.09 for level 1, 1.94 for level 2, and -0.46 for level 3 was found which was not significant at the .05 level of confidence. This means that the hypothesis was not rejected.

Hypothesis 6 There will be no statistically significant reading comprehension gains on Gray Oral Reading Test-4 (GORT-4) for students with disabilities after participation in the *Read Well* program, in terms of gender.

TABLE XII: One-Way Analysis of Variance - GORT-4 Growth By Gender – T-Test

Gender	Number of participants	Mean	Standard Deviation	Degree of Freedom	T Ratio	P Value
Male	135	1.66	3.67	116.94	1.98	>.05
Female	69	2.88	4.42			

On reading comprehension gains of students with disabilities in terms of gender using GORT-4, an analyses of the data collected was run with a one-way ANOVA and a T-ratio of 1.98 was found which was not significant at or below the .05 level of confidence. This means that the hypothesis was not rejected.

Chapter V

Summary and Conclusions

Summary

To consider the best possible programs and strategies to ensure students identified with a disability receive the appropriate educational intervention the National Reading Panel: *Teaching Children to Read-Reports of the Subgroups* (2000) indicated five important areas of reading instruction. These five components are phonemic awareness, phonics, fluency, vocabulary, and comprehension. These reading areas when addressed may increase student proficiency and mastery of skills by students who are identified with a disability. This study investigated the *Read Well* program as an intervention tool, and its ability to have a positive impact on students with disabilities overall reading fluency and comprehension.

This study collected data from a Middle Tennessee school district. Students with disabilities who receive direct special education services for reading/language arts enrolled in this Middle Tennessee school system and are in grades kindergarten through fourth were given the *Read Well* placement test and then placed in the *Read Well* intervention program. The data used for this study was retrieved from 18 elementary schools with 29 special education teachers participating in the implementation of the *Read Well* program.

All identified students with disabilities in grades kindergarten through fourth who qualified through the *Read Well* placement test received 45 minutes a day of classroom reading instruction with their non-disabled peers at the grade level in which they were enrolled. Then these students received instruction in the *Read Well* program in a special

education setting for 30-45 minutes a day, with instruction provided by a qualified special education teacher. Each special education teacher teaching *Read Well* received two days of training using the *Read Well* program. Students were given instruction at a *Read Well* level based on the *Read Well* placement test; no matter what time in the school year they entered the program.

Conclusions

This study concluded the following:

1). Using *Read Well* as an intervention tool for students with disabilities in reading has a positive statistically significant growth outcome.

2). *Read Well* growth was seen as statistically significant by the beginning and end year test results for students enrolled in the program.

3). The growth in reading comprehension was verified as statistically significant by using the GORT-4 as a measure.

4). The growth in reading fluency using DIBELS Oral Reading Fluency (ORF) was verified as statistically significant with the report of data using percentile rank.

5). Student growth based on type of disability showed no significant difference in the *Read Well* program by the measure of GORT-4 or DIBELS Oral Reading Fluency (ORF).

6). Student growth based on gender showed no significant difference in the *Read Well* program by the measure of GORT-4 or DIBELS Oral Reading Fluency (ORF).

7). Females showed better growth than males as measured by the GORT-4, although the difference was not significant.

Recommendations

Based on the above conclusions the following recommendations are suggested by this researcher for the use of the *Read Well* program:

1). It is recommended that the *Read Well* program continue to be used within this middle Tennessee school district.

2). It is recommended that this study and future studies use raw score data from DIBELS to guarantee students scores from the beginning of the year (BOY) to the end of the year (EOY) are individual-to-individual and not individual to whole group, which includes students without disabilities also.

3). It is recommended that beginning of the year (BOY) and end of the year (EOY) data give significant information to analyze growth using GORT-4 and DIBELS.

4). It is recommended that middle of the year scores be used only for students who are entering or exiting the program or school during the school year. There seems no value in this measure for students who started the year and had BOY scores and who also finished the year and had EOY scores.

Appendix 1- CMCSS Approval

Sallie Armstrong, Ed.D.
Curriculum & Instruction Director

Board of Education 621 Gracey Avenue Clarksville, Tennessee 37040
931-920-7819 Fax: 931-920-9819 email: sallie.armstrong@cmcss.net

May 18, 2011

Dear Ms. Waite,

Our Research Committee has met and approved your request to conduct research to determine what, if any, reading fluency gains special education students make as a result of being enrolled in the Read Well program. Please remember that the complete resulting data is to be given to the District.

Sincerely,

Sallie Armstrong

Sallie Armstrong, Ed.D.
Curriculum and Instruction Director

Appendix 2- IRB Approval from APSU

June 29, 2011

Barbara Waite
211 Longwood Lane
Clarksville, TN 37043

RE: Your application regarding study number 11-045 Special Education Students Reading Well with *Read Well*.

Dear Ms. Waite,

Thank you for your application for the study above. The Austin Peay IRB has reviewed your application and has approved your study without modification. Congratulations!

You are granted permission to conduct your study as described in your application effective immediately. The study is subject to continuing review on or before June 29, 2012, unless closed before that date. Enclosed please find the forms to report when your study has been completed and the form to request an annual review of a continuing study. Please submit the appropriate form prior to June 29, 2012.

Please note that any changes to the study as approved must be promptly reported and approved. Some changes may be approved by expedited review; others require full board review. If you have any questions or require further information, contact me at (221-7231; fax 221-6267; email grahc@apsu.edu).

Again, thank you for your cooperation with the APSU IRB and the human research review process. Best wishes for a successful study!

Sincerely,

Charles R. Grah
Chair, Austin Peay Institutional Review Board

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