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EFFECTIVENESS OF SUPPLEMENTAL READING ACTIVITIES  
WITH FIRST GRADE INTENSIVE READERS

by

Natalie Nena Kaplan

A Research Project Presented in Partial Fulfillment  
of the Requirements for the Degree  
Master of Education

REGIS UNIVERSITY

August, 2006

## ABSTRACT

### Effectiveness of Supplemental Reading Activities

#### With First Grade Intensive Readers

The effectiveness of an intervention for English language learners (ELLs) at risk for reading problems is described. The treatment group was made up of 10 first grade students who were determined at risk for reading difficulties and were provided an intervention of supplemental reading instruction throughout the school year. Their scores on the Dynamic Indicators of Basic Early Literacy Skills (DIBELS; Good, Kaminski, Laimon, & Johnson, 1992; Good, 1994) were assessed for phoneme segmentation fluency, nonsense word fluency, and oral reading fluency prior to and following intervention. The scores of the treatment group were then compared to a control group of Intensive readers. Students in the treatment group and the control group made gains from pretest to posttest in their mean scores. The treatment group had a higher improvement in mean score and percentage improvement in phonemic segmentation . The treatment group had a higher percentage improvement but a lower mean score in nonsense word fluency and oral reading fluency.

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## Chapter 1

### INTRODUCTION

Many English language learners (ELLs) have less success in the development of early literacy skills in comparison to their native English speaking peers. However, these learners can improve reading and writing skills by the development of literacy skills as their proficiency in oral English language increases (Linan-Thompson, Vaughn, Hickman-Davis, & Kouzekanani, 2003). A number of researchers (Foorman et al., 1998; O'Connor, 2000; Torgesen et al., 1997; Torgesen, Wagner, Rashotte, & Herron, 1999; Vellutino et al., 1996; all cited in Gunn, Smolkowski, Biglan, & Blair, 2005) have documented the value of supplemental reading instruction for young English speaking children at risk for reading difficulties. Consistently, the findings from these studies indicated that children who received supplemental instruction in word/level reading skills and comprehension strategies in small, homogenous groups improved their reading skills more than children who began at similar skill levels, but did not receive extra instruction.

#### Statement of the Problem

The acquisition of literacy skills in the primary grades is important for every student because those who do not develop early literacy skills are likely to continue to struggle with reading. There are many different educational philosophies and strategies available to: (a) help remediate a student's reading skills, (b) track progress of a student's acquisition of skills, and (c) improve the success of a student through

supplemental reading instruction. Use of the right combination of strategies can allow a student to achieve his or her reading potential. This project addressed the effectiveness of the use of phonemic awareness, nonsense word recognition, and oral reading fluency activities as supplemental reading instruction to improve students' reading abilities.

### Purpose of the Project

The purpose of this project was to determine the effects of supplemental reading interventions for Intensive ELLs. At the school where this project was implemented, a direct instruction reading program and progress monitoring are used to determine areas for growth for students who are classified as Intensive learners. The use of bimonthly progress monitoring can help the teacher to pinpoint a specific critical skill(s) in which a student needs development. Then, that teacher can develop supplemental reading interventions to lead to a student's mastery of that skill.

### Chapter Summary

In summary, it is this researcher's position that the use of supplemental reading instruction that is focused on phonemic awareness, nonsense word recognition, and oral reading fluency will result in an increase in the students' Dynamic Indicators of Basic Early Literacy Skills (DIBELS; Good, Kaminski, Laimon, & Johnson, 1992; Good, 1994) scores throughout monitoring of their progress. In Chapter 2, this researcher provides a review of the educational research on the assessment tools used in this study, EL learners, supplemental instruction, the reading curriculum currently used in the school, and the



value of teaching phonemic awareness. In Chapter 3, the researcher describes the participants, measures, and data analysis for this study.

## Chapter 2

### REVIEW OF LITERATURE

This study was conducted to assess the value of supplemental reading instruction on English Language learners' (ELLs) reading skills acquisition. The purpose of this project was to assess the current supplemental practices for improvement of the reading skills for Fort Washakie School first grade students and to evaluate the effectiveness of those practices. For many years, teachers have been aware of and tried to solve the issues that surround students' acquisition of reading skills.

The Dynamic Indicators of Basic Early Literacy Skills (DIBELS; Good, Kaminski, Laimon, & Johnson, 1992; Good, 1994), the assessment tool used in this study, has been widely tested in similar studies and found to give accurate measures. The Reading Mastery (Engelmann & Bruner, 1988) curriculum is well implemented into Fort Washakie School, and it was chosen because of the research that supports its ability to systematically teach students with identified reading difficulties. In this chapter, the researcher evaluates the research behind the supplemental instruction strategies employed to improve the reading skill acquisition for the ELLs in this study.

#### The DIBELS Reading Assessment

In education, there is an assumption that good assessment is an integral part of good instruction, and conventional child assessments do not yield instructionally relevant behavior (Herman, Aschbacher, & Winters, 1992, as cited in Elliott, Lee, & Tollefson, 2001). Within the current climate of school reform initiatives, alternative assessment

methods have been widely promoted in the field of education (Bagnato, Neisworth, & Munson, 1989; Miller, 1995, both cited in Elliott et al.). The emphasis on the inseparability of curriculum and assessment and the premise that assessment activities should contribute to instructional improvement have raised major challenges for educational measurement (Elliott et al.).

As reported by Elliott et al. (2001), school psychologists have used curriculum based measurement (CBM) as a form of performance assessment that features the measurement of student proficiency across core areas of the curriculum. The DIBELS (Good et al., 1992; Good, 1994) was developed as an extension of CBM to assess the reading abilities of students.

The DIBELS (Good et al., 1992; Good, 1994) is a set of standardized, individually administered measures of early literacy development. They are designed to be short, 1 minute fluency measures used to regularly monitor the development of prereading and early reading skills. The measures were based upon the essential early literacy domains discussed in both the National Reading Panel (2000) and National Research Council (Snow, Burns, & Griffin, 1998) reports to assess student development of: (a) phonological awareness, (b) alphabetic understanding, and (c) automaticity and fluency with the code. These measures have been thoroughly researched and demonstrated to be reliable and valid indicators of early literacy development and predictive of later reading proficiency to aid in the early identification of students who do not progress as expected. When used as recommended, the results can be used to evaluate individual student development as well as provide grade level feedback toward validated instructional

objectives.

Hall (2005) explained that DIBELS (Good et al., 1992; Good, 1994) is “an assessment instrument that measures how successfully a child is progressing in the critical skills that underlie success in early reading” (p. 30). There are three levels in which a student’s score may fall on the DIBELS assessment: (a) benchmark, (b) at risk of reading difficulty, or (c) somewhere in between. These three levels indicate the level of a student’s skill in comparison to the scores of a large pool of children in the same grade.

School staff administer the DIBELS (Good et al., 1992; Good, 1994) assessment to all students three times a year: (a) Fall, (b) Winter, and (c) Spring. Hall (2005) identified the three primary uses of DIBELS as:

- (1) It is a screening instrument that determines whether all the major skills are in place for a student to read on grade level by the end of the third grade.
- (2) It offers progress monitoring assessments that measure whether intervention instruction is effective.
- (3) It is used as an outcome assessment that measures the effectiveness of a school’s reading instructional program. (pp. 30-31)

The progress monitoring capabilities of DIBELS is perhaps the most important characteristic of this assessment instrument (Hall). With the use of DIBELS, educators can conduct frequent, repeated administrations of the same indicators by the use of 1 of 20 alternate forms. This is possible because DIBELS indicators are sensitive to change over a short period of time. Repeated administration can be used to help monitor the progress of students who receive intervention instruction. Hall pointed out that one of the benefits of the use of DIBELS progress monitoring data is that teachers can know in a timely manner whether the instruction selected is effective for the student.

Elliott et al. (2001) examined the psychometric properties of a set of preliteracy measures modified from the DIBELS (Good et al., 1992; Good, 1994) and determined that DIBELS provided a reliable and valid indicator of children's progress toward the acquisition of early literacy skills. The Elliott et al. findings represented an extension of the previous work (Blachman, 1984; Blachman, 1989; Felton & Wood, 1989; Stahl & Murray, 1994) conducted to evaluate the DIBELS measures and included a larger, more diverse, nationally representative sample of kindergarten children. The Elliott et al. results were consistent with the previous research on the DIBELS as well as with a large body of research on kindergarten level preliteracy abilities that have been associated with later reading acquisition (Blachman, 1984; Blachman, 1989; Felton & Wood, 1989; Stahl & Murray, 1994). In addition, the strong correlations found between the DIBELS-M and the Woodcock-Johnson Skills Cluster (Woodcock & Johnson, 1989, 1990, as cited in Elliott et al.) confirmed earlier findings of the relationship between prereading and mathematics fluency (Daly, Wright, Kelley & Martens, 1997, as cited in Elliott et al.).

Elliott et al. (2001) determined that, for school psychologists, the DIBELS (Good et al., 1992; Good, 1994) measures represent many of the best features of alternative assessments. The results from the Elliott et al. study supported the use of a subset of DIBELS-M measures by school psychologists: (a) to identify kindergarten children who would benefit from more intensive instruction, (b) to monitor the progress of these children in the acquisition of preliteracy skills, and (c) to evaluate the effectiveness of early prereading instruction (Shinn & Hubbard, 1992, as cited in Elliott et al.).

In a study published by the University of Oregon research group (Kaminski & Good, 1996, as cited in Elliott et al., 2001), the DIBELS (Good et al., 1992; Good, 1994) Letter Naming Fluency, Phonemic Awareness, Segmentation Fluency and Picture Naming Fluency measures were evaluated for a kindergarten group of 18 children. Based on the psychometric analysis of the data, Kaminski and Good concluded that these DIBELS measures could be used to provide a reliable and valid indicator of children's progress toward the acquisition of early literacy skills.

The DIBELS (Good et al., 1992; Good, 1994) measures are practical because they are very brief, easily repeated, and can be adapted to the curriculum (Hall, 2005). They do not require elaborate materials and can be readily administered by school psychologists and other school based personnel with minimal training. The measures are easy to score, and children should benefit from exposure to the skill tested (Elliott et al., 2001).

### The Reading Mastery Curriculum

The Reading Mastery (Engelmann & Bruner, 1988) programs are distinguished from other reading programs by a large body of research as reported by Schieffer, Marchand-Martella, Martella, and Simonson (2003). They are considered to be among the most successful and effective commercial reading programs available today (American Federation of Teachers, 1998; Briggs & Clark, 1997; both cited in Schieffer et al.).

The Reading Mastery (Engelmann & Bruner, 1988) programs are basal reading programs that are designed to develop reading skills and strategies through systematic,

small steps that make it possible for all children to learn and learn in a timely manner. This curriculum is a reading/language arts program for students in Grades K-6. It supports reading instruction with oral language instruction and provides expanded opportunities for writing and the practice of related language arts skills.

Gunn et al. (2005) conducted a study in which they determined the value of instruction in decoding skills to improve the reading achievement of K-3 students at risk for reading difficulty. In the study conducted by Gunn et al., Reading Mastery (Engelmann & Bruner, 1988) and Corrective Reading (Engelmann, Carnine, & Johnson, 1988) were the curricula used for supplemental instruction. The focus of these curricula is on the development of foundational word recognition skills identified as essential to skilled reading (Rayner, Foorman, Perfetti, Pesetsky, & Seidenberg, 2001) and incorporate frequent opportunities to practice and review that help students learn and remember new skills.

#### Supplemental Instruction for Reading Skill Development

Despite the potential for ensuring reading success and, thus, reducing the need for remedial services among struggling readers, often, there are practical difficulties to providing optimal reading instruction (Gunn et al., 2005). It may be difficult for teachers to find enough time in the day to teach the wide range of curricula required by districts and states. Also, Gunn et al. explained that reading instruction is complicated by: (a) children who enter school without the foundational literacy skills typically acquired in the preschool years, (b) a growing population of children that do not speak English as their first language, and (c) children with behavioral problems. Even knowing these

challenges, teachers need to teach children to read in a relatively brief time frame.

Therefore, the use of supplemental reading instruction is a promising approach to help students, at risk for reading difficulty, develop essential literacy skills without missing important classroom instruction.

The long term impact of reading failure on school success is well established (Cunningham & Stanovich, 1998; Slavin et al., 1996). So, too, is the relation between learning to read in the primary grades and the development of reading ability throughout elementary school (Francis, Shaywich, Steubing, Shaywitz, & Fletcher, 1996, as cited in Gunn et al., 2005).

Frequently, reading acquisition is viewed as a bottom up process, based on the development of word recognition skills to promote fluency and comprehension (Rayner et al., 2001). Within this framework, the acquisition of fluent word recognition allows the reader to allocate increased attention to key comprehension processes, such as making meaningful connections between sentences within a passage or relating text meaning to prior experiences and information (Fuchs, Fuchs, Hosp, & Jenkins, 2001). Learning how to decode text in the elementary grades provides a requisite foundation, not only for reading fluency, but also for higher level comprehension processes. The purpose of the Gunn et al. (2005) study was to determine the value of supplemental instruction, with a focus on the development of word recognition skills to help students at risk for reading failure.

Although previous research was not cited in regard to the conditions required to prevent word recognition difficulties for all students, Gunn et al. (2005) maintained that



beginning readers benefit from systematic, explicit instruction in phonemic awareness and decoding skills (Foorman, Francis, Fletcher, Schatschneider & Mehta, 1998; Torgesen, Wagner, & Rashotte, 1997; Vellutino et al., 1996; all cited in Gunn et al.). In addition to difficulties with word recognition, some children who struggle with reading have coexisting behavior problems. Gunn et al. hypothesized that effective reading instruction may be one element of an effort to prevent misbehavior. Further, they hypothesized that the provision of supplemental reading instruction, based on explicit instruction to develop word recognition skills accompanied by: (a) clear feedback, (b) active engagement, and (c) cumulative review would help students at risk for reading difficulties develop foundational reading skills.

A number of researchers (Foorman et al., 1998; O'Connor, 2000; Torgesen et al., 1997; Torgesen, Wagner, Rashotte, & Herron, 1999; Vellutino et al., 1996; all cited in Gunn et al., 2005) have documented the value of supplemental reading instruction for young English speaking children at risk for reading difficulties. Findings from these studies indicated that, consistently, children who received supplemental instruction in word/level reading skills and comprehension strategies in small, homogenous groups, improved their reading skills more than children who began at similar skills levels, but did not receive extra instruction. Linan-Thompson, Vaughn, Hickman-Davis, and Kouzekanani, (2003) cited the research of O'Connor (2000), Torgesen (2000) and Vellutino et al. (1996) who showed that students who struggled with reading acquisition and were at risk for reading disabilities benefited from supplemental, intensive reading instruction.

The purpose of the Gunn et al. (2005) study was to compare the effects of supplemental vs. no supplemental instruction on the reading achievement of a diverse sample of students at risk for reading difficulty. Given the wide ranging demographics and instructional needs of children in classrooms across the country, the Gunn et al. study was designed to include a sample of children with the range of behavior and early literacy deficits which have been shown to affect reading outcomes. The results from the Gunn et al. study supported the value of supplemental instruction in decoding skills to improve the reading achievement of K–3 students at risk for reading difficulty. The Gunn et al. findings were consistent with other evaluations of supplemental instruction (Foorman et al., 1998; Linan-Thompson et al., 2003; O'Connor, 2000; Quiroa et al., 2002; Torgesen et al., 1997; Torgesen et al., 1999; Vellutino et al., 1996; all cited in Gunn et al.). It appears that the emphasis on the development of word recognition skills, through explicit instruction in phonemic awareness and phonics, accompanied by practice reading decodable text, contributed to improvements in reading ability. Indeed, students in the intervention condition performed significantly ( $p < .05$ ) better than students in the control condition on measures of entry/level reading skills (i.e., letter word identification and word attack) and on measures of more advanced literacy skills (i.e., oral reading fluency, vocabulary, and comprehension). The benefits of instruction were still evident 2 years after the intervention ended.

### The Value of Teaching Phonemic Awareness

According to Snow, Burns, and Griffin (1998), students should decode words by attending to their letter/sound relationships, and context and picture cues should be used

only as a secondary tool in word recognition. Students who received direct instruction in alphabetic principle increased their word reading skills at a significantly faster ( $p < .05$ ) rate than students who were taught the alphabetic principle indirectly through exposure to literature (Foorman et al., 1998, as cited in Gunn et al., 2005).

Phonemic awareness skills include the ability to: (a) perceive words as a sequence of various sounds, (b) isolate and segment individual phonemes, (c) blend phonemes into whole words, and (d) rhyming (Snow et al., 1998). Snow et al. concluded that good phonemic awareness skills are the most successful predictor of future superior reading performance. These skills are not natural for most students; therefore, they must be taught in an explicit manner. The importance of these skills is recognized through the early emphasis on phonemic awareness training found in Reading Mastery (Engelmann & Bruner, 1988).

When students learn how to read, three essential components should be taught in an explicit manner (Snow et al., 1998). First, students should be taught that words are comprised of a sequence of isolated sounds, or phonemes. This step is commonly referred to as the acquisition of phonemic awareness. Second, students must learn the sounds that correspond to individual letters and combinations of letters (i.e., phonics). The third and final step in beginning reading acquisition is the blending of these individual sounds to form meaningful whole words that are spoken quickly so they form real words (e.g., mmmmaaannn = man).

Adams (1990) and Snow et al. (1998) demonstrated that explicit training in phonemic awareness is invaluable in order to achieve the goal of efficient and effective

reading instruction. Further, Adams suggested that the key to acquisition of phonemic awareness involves explicit instruction rather than age or natural development. Snow et al. stated that, “First grade instruction should be designed to provide explicit instruction and practice with sound structures that lead to phonemic awareness” (p.194).

According to the authors of the National Reading Panel report (2000), the research to date strongly supports the concept that explicitly and systematically teaching children to manipulate phonemes improves their reading and spelling abilities. Davidson and Jenkins (1994) found that students who were taught both segmenting and blending skills showed transfer to word reading and spelling tasks. Similarly, Lechner, Gerber, and Routh (1990) concluded that decoding requires both the ability to segment and blend phonemes and some ability to manipulate phonemes.

### English Language Learners

The number of children with limited English proficiency in U.S. public schools has risen dramatically in the past 20 years and continues to grow (August & Hakuta, 1997). To ensure that students make adequate progress in literacy, many states have implemented benchmark testing. Because a growing number of students in U.S. schools are from linguistically diverse backgrounds, many students who take these tests are likely to be English language (ELLs) learners. When their English reading skills are assessed by the use of benchmark testing, many ELLs fail to meet minimum expectations. Given the serious consequences of failure to acquire appropriate literacy skills, the identification of effective reading interventions for ELLs is imperative.

Many ELLs have less success in the development of early literacy skills in comparison to their native English-speaking peers (Gunn et al., 2005). If an ELL does not develop literacy skills as his or her oral English language proficiency increases, he or she is likely to continue to struggle with reading throughout life. An ELL can improve reading and writing skills by the development of literacy skills as the learners' oral English language proficiency increases (Linan-Thompson et al., 2003).

The use of repeated reading is beneficial as an intervention for ELL in reading fluency because it provides an opportunity to develop automaticity in recognition of: (a) English phonemes, (b) high frequency words, and (c) word patterns (Grabe, 1991, McLaughlin, 1987). Also, Linan-Thompson et al. (2003) cited the studies of Snowling (1981) and Quiroga (2002) who documented that the ability for a student to recognize the structure of spoken words is a prediction of decoding skills and reading achievement in English and in Spanish. For ELLs, Linan-Thompson et al. cited the following instructional practices as being associated with improved outcomes in understanding text by building vocabulary:

- (a) Explicit instruction in new, critical, or multiple meaning vocabulary (Au, 1993); (b) teaching word meanings in context and expanding on the context of words to build understanding of vocabulary or contexts in which certain multiple meaning vocabulary is used (Anderson & Roit, 1998; Au, 1993; Grabe, 1991; Jimenez, Garcia, & Pearson, 1996) and (c) addressing high-frequency vocabulary and vocabulary that is difficult to visualize (Anderson & Roit, 1998). (p. 223)

Au (1993) reported that, in order to aid in the decoding of words, students should have explicit instruction in word patterns or word similarities.

During explicit skill instruction, thinking processes are made visible through modeling and active teaching (Linan-Thompson et al., 2003). Explicit skill instruction has been shown to be effective with ELLs who are in the beginning stages of learning to decode English texts, especially when combined with student directed activities (August & Hakuta, 1997) where students are provided with many and varied opportunities to practice with assistance from the teacher as well as independently (Grabe, 1991; McLaughlin, 1987). In addition, student understanding may be enhanced through instruction that: (a) uses routines, (b) embeds redundancy in lessons, (c) adjusts level of English vocabulary and structure, (d) provides explicit discussion of vocabulary and structure, and (e) provides students with metacognitive skills (August & Hakuta).

### Chapter Summary

Currently, the teachers in the U.S. instruct more ELLs than ever before. (Linan-Thompson et al., 2003). There are curricula and assessments specifically designed to pinpoint an individual's challenges when learning to read in early grades, so that teachers can constantly adjust their techniques in order to best teach each student. Each school, culture, and learning environment is different, and so it is important to diagnose what works best for each particular student in each particular setting. It is the goal of this author to determine what tools work best for the ELLs at the Fort Washakie School of Wyoming.

In this study, this researcher assessed the value of supplemental instruction for EL learners. DIBELS (Good et al., 1992; Good, 1994) is a reliable tool for this study because it has already been well established as a school assessment procedure and teachers have

been well trained to interpret its results. The Fort Washakie faculty has used Reading Mastery (Engelmann & Bruner, 1988) for 2 years; therefore, students have become adjusted to its style, and teachers are more skilled at teaching it. The combination of Reading Mastery as a direct instruction curriculum to remediate students with difficulties, a supplemental instruction time focused on phonemic awareness and DIBELS to help systematically assess student learning should have positive results for the reading acquisition skills of the students who participate in this study. In Chapter 3, the method utilized in this project is described.

## Chapter 3

### METHOD

The purpose of this research project was to study the effects of a supplemental reading intervention on the reading ability of Intensive readers. One of the main objectives was to track students' skill progression to identify which strategies the Fort Washakie School teachers should use in supplemental reading instruction to augment the Reading Mastery Plus (Engelmann & Bruner, 2003) curriculum. Data was collected from the students in this author's first grade reading group at Fort Washakie School in Fort Washakie, Wyoming.

Both a review of literature related to this topic and reading results from this researcher's first grade reading class are presented to illustrate the effects of supplemental reading instruction on reading skill acquisition. The data from this researcher's class were collected over the course of the 2005–2006 school year with formal assessments. It is the hope of this researcher that the school staff will be able to use the collected data to strengthen the reading program and, thus, the reading skills of its students.

### Participants

All of the participants in this research project were students in first grade reading groups at Fort Washakie School in Fort Washakie, Wyoming during the 2005-2006 academic year. Fort Washakie School is a school/wide Title I school and receives a Reading First grant from the state. All students were included in the process,



even if they did not attend the school for the duration of the school year. All of the students are from families of low socioeconomic status who live on the Wind River Indian Reservation. All of the students were identified as Intensive based on their scoring on the Dynamic Indicators of Basic Early Literacy Skills (DIBELS; Good, Kaminski, Laimon, & Johnson, 1992; Good, 1994) administered in September, 2005. The total number of students in the treatment group was 10 Native American males, ages 6-7 years old. The control group consisted of 10 first graders, who were also identified as Intensive based on their scoring on the DIBELS and were also Native American, ages 6-7 years old, but did not receive supplemental instruction based on their reading teacher's recommendation.

The focus of the analysis was on the data from the treatment group students. These data were compared to the control group students who were identified as Intensive, but who did not receive supplemental reading instruction. The students in the treatment group received 30 minutes of supplemental instruction focused on phonemic awareness in addition to the 150 minutes of regular instruction daily of the Reading Mastery curriculum every school day. The control group received 150 minutes of regular instruction of the Reading Mastery curriculum, but did not receive the supplementary instruction. Although the composition of the treatment group was solely male, this is consistent with low/level readers throughout the grades at Fort Washakie School. Therefore, this researcher believes the data may still be applicable to students in future first grade classes at Fort Washakie School.

All of the data was collected during the normal course of the school's first grade curriculum and assessment program. The Fremont County District #21 School Board, the Fort Washakie School Principal, and the Head Reading Coach granted approval for this study, and all parents were notified that their child would be part of this study (see Appendices A, B, & C). The students' names were omitted to preserve their anonymity. None of the parents declined to have their child take part in the study.

### Measures

DIBELS (Good et al., 1992; Good, 1994) is a set of 10 brief measures designed for progress monitoring and early identification of children with reading problems. Both point and level estimates of performance are used. The point estimates score describes student performance on a single measure; whereas, the level estimate score is based on the average of all repeated measures for a given task during a specified data collection period.

The DIBELS (Good et al., 1992; Good, 1994) is used to evaluate a set of early literacy skills identified in the literature as directly related to and facilitative of later reading competence. Student knowledge of letter names, sound/syllable relationships, and phonemic awareness in kindergarten has been identified as an important predictor of later literacy (Blachman, 1984; Blachman, 1989; Felton & Wood, 1989; Stahl & Murray, 1994; Stevenson, Parker, Wilkeinson, Hegion, & Fish, 1976; Torgeson, Morgan, & Davis, 1992). The DIBELS consists of brief measures for each of these important abilities along with other potentially important general language and associated abilities;

also, its measures of language development include Word Use Fluency and Nonsense Word Fluency.

### Procedures

Data from the DIBELS (Good et al., 1992; Good, 1994) progress monitoring is collected for each student every 2 weeks throughout the academic year. Also, benchmark testing scores from the DIBELS were provided from the September, January, and May testing dates. There were two designated DIBELS test administrators for all first graders. Each administrator attempted to test the same students at each testing. The students were tested for Phoneme Segmentation Fluency (PSF) and Nonsense Word Fluency (NWF) in September, Oral Reading Fluency (ORF) in January, and PSF, NWF, and ORF in May.

### Data Analysis

The main purpose of this researcher's analysis is to determine the effectiveness of supplemental reading intervention for Intensive, first grade readers. The data collected from the procedures was analyzed using descriptive statistics. Only measures from the DIBELS scores for PSF and NWF administered in September, ORF in January and PSF, NWF, and ORF in May were analyzed. The change in performance was determined by subtracting each student's September DIBELS score from his score in May and then generating the percentage of growth. A score for mean percentage of improvement was also determined by subtracting the totals of May scores from the totals of September scores.

### Chapter Summary

The researcher used descriptive statistics to examine the effect of supplemental reading instruction on reading readiness performance of 10 first grade students in her classroom. Analysis of this data was used to determine the degree of success of supplemental reading instruction and the Reading Mastery Program (Engelmann & Bruner, 1988) in order to ensure that low level readers achieve reading success. In Chapter 4, the results in this study are described.

## Chapter 4

### RESULTS

The scores for Phonemic Segmentation Fluency (PSF) and Nonsense Word Fluency (NWF) analyzed in this study were from the participants in the treatment and control groups on the DIBELS (DIBELS; Good, Kaminski, Laimon, & Johnson, 1992; Good, 1994) pretest, given in September, and a posttest, given in May. The Oral Reading Fluency (ORF) scores analyzed in this study were administered in January, for the pretest and May for the posttest. All student received 150 minutes daily instruction in Reading Mastery (Engelmann & Bruner, 2003). The treatment group received 30 minute daily supplemental instruction throughout the school year between the test dates. The control group did not receive supplemental instruction.

#### Phonemic Segmentation Fluency (PSF)

The DIBELS benchmark goal for PSF is 35 for both the pretest and the posttest. For the pretest, 7 out of the 10 participants in the treatment group met or exceeded benchmark, with a group mean of 34.5 (see Table 1). For the posttest, only one participant scored below the goal and the group's mean score improved to 56.7 points, exceeding benchmark and showing growth of 64%. For the pretest, 7 out of the 10 participants in the control group met or exceeded the benchmark goal, with a group mean of 39.8 (see Table 1). The mean scores of the control group improved to 56.2 points, exceeding benchmark and showing growth of 41%. The treatment group who received

the supplemental instruction had a higher mean score of improvement and percentage gain than control group in PSF.

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Table 1  
Mean DIBELS Phonemic Awareness Test Scores for Treatment and Control Groups

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	Treatment Group (supplemental instruction)	Control Group (no supplemental instruction)
Benchmark Score	35	35
Mean Score-September	34.5	39.8
Mean Score - May	56.7	56.2
Mean Score Improvement	22.2	16.4
Mean % Improvement	64%	41%

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#### Nonsense Word Fluency (NWF)

NWF is the indicator that DIBELS uses to determine if an incoming first grader should be considered at risk or Intensive. The DIBELS benchmark goal for Nonsense Word Fluency (NWF) is 24 for the pretest and 50 for the posttest.

For the pretest, all 10 participants in the treatment group scored below the benchmark goal, with a group mean of 7.1 (see Table 2). For the posttest, 5 out of the 10 participants scored below the benchmark, and the group mean score improved by 47 points, showing growth to 662%. For the pretest, all 10 participants in the control group

scored below the benchmark goal with a group mean of 12 (see Table 2). For the posttest 2 out of the 10 participants scored below the benchmark, and the group mean score improved by 55.4, exceeding benchmark and showing improvement to 462%. For NWF, the treatment group who received supplemental instruction had a higher percentage gain but lower mean score improvement than the control group in NSF.

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Table 2

Mean DIBELS Nonsense Fluency Test Scores for Treatment and Control Groups.

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	Treatment Group (supplemental instruction)	Control Group (no supplemental instruction)
Benchmark Score (posttest)	50	50
Mean Score-September	7.1	12
Mean Score - May	54.1	67.4
Mean Score Improvement	47	55.4
Mean % Improvement	662%	462%

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### Oral Reading Fluency (ORF)

The participants in this study were given the pretest for ORF in January and the posttest in May. As NWF is the indicator used in the pretest to determine if an incoming first grade student is at-risk or Intensive, ORF is the indicator used for an outgoing first grade student.

The DIBELS benchmark goal for ORF is 20 for the pretest and 40 for the posttest. For the pretest, all 10 participants in the treatment group scored below the benchmark goal, with a group mean of 4 (see Table 3). For the posttest, all 10 participants again scored below the benchmark, and the group mean score improved by 13.7, showing 343% growth. For the pretest, all 10 participants in the control group scored below the benchmark goal with a group mean of 7.2 (see Table 3). For the posttest, again all 10 participants scored below the benchmark, and the group mean score improved by 18.3, showing 255% gain. For ORF, the treatment group had a higher percentage gain but lower mean score improvement than the control group in ORF.

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Table 3

Mean DIBELS Oral Reading Fluency Test Scores for Treatment and Control Groups

	Sample Group (supplemental instruction)	Control Group (no supplemental instruction)
Benchmark Score (posttest)	40	40
Mean Score-September	4	7.2
Mean Score - May	17.7	25.6
Mean Score Improvement	13.7	18.3
Mean % Improvement	343%	255%

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The participants in both the treatment and control groups showed improvement of mean scores and percentages of benchmark from pretest to posttest. In PSF, NWF, and ORF, the treatment group showed a greater mean improvement percentage. In Chapter 5, the researcher discusses the results.

## Chapter 5

### DISCUSSION

To ensure that students make adequate progress in literacy, many states have implemented benchmark testing (Linan-Thompson, Vaughn, Hickman-Davis, & Kouzekanani, 2003). In this study, participants were grouped and their progress monitored by the Dynamic Indicators of Basic Early Literacy (DIBELS; Good, Kaminski, Laimon, & Johnson, 1992; Good, 1994). The teachers in this study used the scores on the DIBELS pretest to design and implement supplemental reading instruction for students who were determined to need the most help with reading.

### Analysis of Results

Results in this study are consistent with other studies that show the value of supplemental instruction for improving the achievement of students at risk for reading difficulty (Gunn et al., 2005). Findings are consistent with other evaluations of supplemental instruction (Linan-Thompson et al. 2003 & Torgesson et al, 1992).

Scores on the DIBELS (Good et al., 1992; Good, 1994) pretest determined the participants for this study. The treatment group was made up of students who scored below benchmark in Phonemic Segmentation Fluency (PSF) and Nonsense Word Fluency (NWF) on the pretest and thus were considered to need substantial intervention. The control group was made up of students who scored higher in PSF and NWF, but the scores were still below benchmark. The participants in the control group were expected

to reach benchmark by the posttest after receiving a direct instruction reading curriculum. The teachers of these participants made decisions based on the student's performance in class whether each student would be given the supplemental reading instruction throughout the school year. The comparison groups in this study were not assigned randomly, nor equally, thus the results cannot be generalized to all student populations.

The purpose of this study was to determine the effects of the supplemental instruction for the Intensive ELL students needing intervention at Fort Washakie School. Within the parameters of this study and its purpose, the assignment of comparison groups was probably inappropriate because the treatment group students were identified as needing the intervention more than the students in the control group. The control group was also identified as below benchmark, but their initial scores and performance in class indicate they were a higher performing group. Evaluation of the improvement scores on all three tests needs to take this design deficiency into account.

The researcher found that there were measurable gains for the treatment group. In PSF, the mean score improvement was 22.2, showing 64% gain. In NWF, the mean score improvement was 47 points, showing 662 % gain. In ORF, the mean score improvement was 13.7 points, or 343%. These gains within the school year are meaningful for these students. Because the treatment group was the lower scoring group who received 30 minutes of supplemental instruction, it was expected that there would be more growth, and the data supports this. For NWF and ORF the treatment group had higher percentage gains but lower score gains than the control group (see Tables 2 and 3). For PSF, the

treatment group had both higher scores and percentage gains than the control group (see Table 1).

#### Recommendations for Further Study

The results in this study show improvement for the ELLs, but it is the opinion of this researcher that the supplementary reading activities could be improved, thus yielding higher improvement scores. The teachers who analyze the DIBELS test data should work collaboratively with the teacher who administers the supplemental instruction to help individualize the instruction for each Intensive reader. This researcher recommends implementing preteaching and reteaching parts of the Reading Mastery curriculum that is difficult for a student.

This study would be easily transferable to other grade levels using the assessment data DIBELS provides to determine if a student is reading at a particular grade level. A limitation of this type of study would be the introduction of other potentially influencing factors such as socio economic level, teaching differences, and cultural make up of different student populations.

If this researcher were to attempt this study again to determine how effective supplemental instruction is, the treatment and control groups would need to be made up of participants who scored similarly on the DIBELS and were randomly assigned to treatment and control groups.

#### Chapter Summary

It is the opinion of this researcher that the study supports the use of supplemental instruction in order to improve reading abilities of Intensive ELLs. The results also show

that the increase of instruction time for Intensive readers at Fort Washakie School is having positive effects on their students' abilities to reach benchmark reading levels. The teachers at Fort Washakie School are appropriately analyzing the DIBELS scores to help determine which students need supplemental instruction to help them reach the benchmark reading levels.

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## APPENDIX A

Letter from Principal to Approve Research Study

## Fremont County School District No. 21

90 ETHETE ROAD • FORT WASHAKIE, WYOMING 82514-9702

Administration Building: (307) 332-5983

School Building: (307) 332-2380

January 18, 2006

Ms. Natalie Kaplan  
Title I Reading Instructor  
Fort Washakie School

Dear Natalie:

This letter is in response to your request to use school data for your Masters Research Project with Regis University.

I have discussed this project with Superintendent Karl Berlin and have submitted your letter to the FCSD #21 Board of Trustees for their approval. The primary aspects of this research that leads to my support is that names will be strictly anonymous, that you are ultimately looking to improve the reading abilities of the students, and the potential these results could have to positively impact future classes of our children. It is also essential that you obtain the support of Pat Smith, FWS Reading Coach, so that the requirements of the Reading First Grant continue to be met.

With these things in mind you have permission to commence with the project as was described in your proposal/application letter. Thank you for your dedication to our students!

Sincerely,



Michael J. Helenbolt  
Principal

Cc: Pat Smith

## APPENDIX B

Letter from Reading Coach to Approve Research Study

January 12, 2006

Mr. Mike Helenbolt, Principal  
90 Ethete Road  
Fort Washakie, WY 82520

Dear Mr. Helenbolt,

I have begun my studies to complete my Masters Research Project this semester at Regis University in Denver. I am spending the first 8-week term researching my topic and writing the first three chapters and during the second 8-term I will be compiling results and finishing the written component of the assignment. With this timeline I will be set to graduate from graduate school in May!

I discussed my project idea with Pat Smith and she will be giving me input throughout the process. When talking to my faculty advisor at Regis University, he requested that I ask you for a written letter giving me permission to collect data from my classroom. I will keep the identity of the students anonymous. Here is a brief description of the project that I submitted to my Regis advisor:

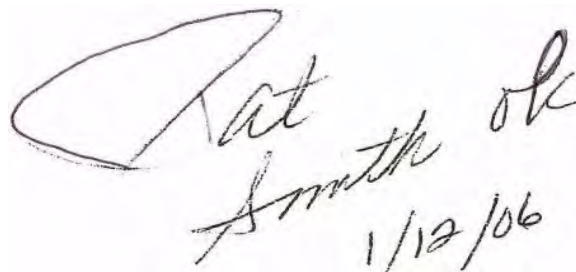
I teach the group of Intensive readers (lowest group) for 1st grade. I have scores for this group, and all 1st graders, from the DIBELS Benchmark test in September (which initially categorized them as Intensive) and scores for bi-monthly progress monitoring in Nonsense Word Fluency by DIBELS. In January, 1st grade will take the next Benchmark test and a final one will be delivered in May. Throughout the rest of the year their progress will be monitored bi-monthly by DIBELS in Nonsense Word Fluency and Oral Reading fluency.

For my Research Project I would like to implement some supplemental strategies to the Reading Mastery program for the students in my reading group to actively improve their scoring on the DIBELS test. DIBELS says that Nonsense Word Fluency and Oral Reading Fluency are the best indicators for testing a student's ability to read. I want to test if focusing on skills that will improve Intensive students' progress-monitoring scores will not only improve the skills tested but will also give these students the opportunity to be designated as Strategic or Benchmark readers in the next set of tests in May. The overall goal is to drastically improve their ability to read. To do this I will track the students bi-monthly test scores and Benchmark test scores.

Please let me know if you would be able to write a letter approving the collection of this data for my project. I will check in with you in a few days if I haven't heard from you to see if you have any questions I can offer.

Respectfully,

Natalie Kaplan  
Title I Reading Teacher, Fort Washakie School  
cc: Pat Smith, Reading Coach



Pat Smith ok  
1/12/06

## APPENDIX C

Letter to Parent to Inform about Research Study

Dear (student's name) Parent or Guardian,

My name is Natalie Kaplan and I am the Title I teacher for 1<sup>st</sup> grade. Since September I have been teaching your (student's name) Reading. This semester I am completing my Master's degree in elementary Education by writing my thesis. My thesis topic will focus on 1<sup>st</sup> grade Reading instruction.

My main goal is to supplement the current Reading Mastery Plus Reading program with activities that will help improve (student's name) scores on the bi-monthly progress monitoring tests. I will be tracking his performance, but his identity will remain anonymous throughout my thesis. This project has been approved by Mr. Helenbolt, Mr. Berlin and the District #21 school board. I am hoping that my work will improve your child's reading ability and have a positive impact on the future teaching of Reading at Fort Washakie School.

If you have concerns about (student's name) participation in this project I can remove him as one of my subjects. Please notify me by returning this note. If I do not receive a response from you I will take that as your approval of (student's name) participation in my thesis project.

If you have any questions or concerns, please contact me at Fort Washakie School.

Thanks for your help with this.

Natalie Kaplan

Title I Reading Teacher