

Effectiveness of All-Day, Every-Day Kindergarten
on First Grade DIBELS Reading Scores

A Special Project

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FACULTY APPROVAL

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ABSTRACT

The Washington State need grant allowed for the switch to all-day, every-day kindergarten in schools eligible to receive the funding. The author believes the funding for all-day kindergarten increases the time the student spends with the teacher therefore increasing the students' reading scores during the first-grade academic year. The DIBELS test scores in the area of non sense words and phoneme segmentation for the first grade students prove the positive impact of the state need funding for all-day kindergarten students.

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TABLE OF CONTENTS

	Page
FACULTY APPROVAL.....	ii
ABSTRACT.....	iii
PERMISSION TO STORE.....	iv
TABLE OF CONTENTS.....	v
LIST OF TABLE.....	viii
LIST OF FIGURES.....	ix
CHAPTER 1.....	1
Introduction.....	1
Background for the Project.....	1
Statement of the Problem.....	4
Purpose of the Project.....	5
Delimitations.....	5
Assumptions.....	7
Hypothesis	8
Null Hypothesis	8
Significance of the Project	9
Procedure	10
Definition of Terms.....	11

	Page
Acronyms.....	13
CHAPTER 2.....	15
Review of Selected Literature.....	15
Introduction.....	15
Research in Reading	15
DIBELS	17
Read-Well	19
All-Day v Half-Day Kindergarten	25
Need Grant support for All-Day Kindergarten.....	27
Summary.....	27
CHAPTER 3.....	29
Methodology and Treatment of Data.....	29
Introduction	29
Methodology.....	29
Participants.....	30
Instruments.....	31
Design.....	32
Procedure.....	33
Treatment of the Data.....	34
Summary.....	34

	Page
CHAPTER 4.....	36
Analysis of the Data.....	36
Introduction.....	36
Description of the Environment.....	36
Hypothesis/Research Question	37
Null Hypothesis.....	37
Results of the Study.....	37
Findings.....	39
Discussion.....	39
Summary.....	40
CHAPTER 5.....	41
Summary, Conclusions and Recommendations	41
Summary.....	41
Conclusions.....	42
Recommendations.....	42
REFERENCES	44
APPENDIXES	50

LIST OF TABLES

	Page
Table 1, <i>t</i> -test Pre-post non sense word fluency for first grade students.....	37
Table 2, <i>t</i> -test Pre-post Phoneme segmentation for first grade students	38

LIST OF FIGURES

	Page
Figure 1, Data for First Grade DIBELs scores.....	51

CHAPTER 1

Introduction

Background for the Project

The engrossed substitute House Bill 1209, otherwise known as the Washington State Education Reform Act of 1993, brought forth the movement in Washington State to ensure student achievement and learning. The state legislature adopted the Student Education and Reform Act to improve student learning and set education standards for all schools and classrooms within the state of Washington. The standards were called the Essential Academic Learning Requirements. The new requirements were used to monitor student learning. The state also needed a tool to measure student achievement aligned with the new Essential Academic Learning Requirements. The student learning was measured by the state adopted test called the Washington Assessment of Student Learning. Washington State took a slightly different approach to reform, as discussed in the research paper by the Rand group,

Unlike many states—including Texas, Kentucky, and North Carolina—that implemented standards based reforms rapidly, Washington is introducing its reform over a period of a decade. For example, the EALRs for reading, writing, mathematics, and listening were developed first in 1995. The EALRs for science, social studies, health/fitness, and the arts

followed in 1996 (The effects of the Washington state education reform on schools and classrooms: Initial findings. 2000. p 5).

The No Child Left Behind act was signed by President George W. Bush on January 23, 2001 as stated on the U.S. Department of Education website. The new act reauthorized the Elementary and Secondary Education Act of 1965 that was the main federal law to impact education for students from kindergarten through high school. No Child Left Behind was “built on four principles: accountability for results, more choices for parents, greater local control and flexibility, and an emphasis on doing what works based on scientific research” (Hergert, Gleason, Urbano, and North, 2009, p 11). The act ensured federal monies to districts and schools for professional development and instructional needs. As part of the act, curriculum required scientifically based research programs. No Child Left Behind defined scientifically based research as “research that involves the application of rigorous, systematic, and objective procedures to obtain reliable and valid knowledge relevant to education activities and programs” (United States Department of Education, p 540).

The Washington Assessment of Student Learning monitored student and grade level ability for school districts across Washington State. The benchmarks for grade-levels required students to meet Adequate Yearly Progress as determined by state officials. For third grade students, the Washington

Assessment of Student Learning test became a reality during the 2005-2006 academic year. The students tested over the last several years have not measured well against the state's adequate yearly progress standards.

Two elementary schools in the school district switched to all-day, every-day kindergarten funded by a grant. The idea was to improve student reading ability before the students completed the Washington Assessment of Student Learning test in the third grade year. Funding for all-day kindergarten in Washington State was supported by the voter approved Initiative 728 in 2000. The initiative set aside tax monies from property taxes and state lottery funds and deposited the money into the Student Achievement Fund. The money was not enough to fully fund the switch to full-day kindergarten, other funds became available from Title I funds for student eligibility for free and reduced lunches and from parent tuition payments. As stated in the publication entitled, *The full story on full day kindergarten; an analysis of full-day kindergarten in Washington State* (2007, June), “The primary sources of available funding help to explain the uneven distribution of programs across the state. In districts with few low-income students, schools can justify charging tuition for full-day kindergarten” (Lidman, Yates, Burbank, 2007, p 16). For many schools in Washington State, the high percentage of free-reduced lunch students within the school service area made charging tuition to parents nearly impossible. School districts adjusted budgets to allow for the needed all-day kindergarten.

Why all-day kindergarten was necessary? In the article, *The Full Story on Full Day Kindergarten*, authors Hannah Lidman, Elizabeth Yates, and John R. Burbank (2007, July, p 2) stated,

“National and local research demonstrates that full-day kindergarten results in positive academic and social benefits for students. As compared to their peers in half-day kindergarten, full-day students perform at higher levels in the fundamental areas of reading and math. These academic gains made in the full-day classroom may also persist into later grades, bolstering overall early academic achievement”.

To achieve the academic levels the state required further in the academic career, students needed the jump-start the all-day kindergarten allowed the students to gain.

Statement of the Problem

The research was conducted to determine the impact of all-day kindergarten on first grade reading scores from the spring of the kindergarten academic year to spring of the first grade school year testing based on Dynamic Indicators of Basic Early Literacy Skills scores. The researcher believed the switch to all-day kindergarten would positively influence the reading scores of students during the first grade year.

Purpose of the Project

The author studied the use of House Bill 1209-funded all-day kindergarten programs and the effectiveness of the funding on reading scores for first grade students. The first grade students were tested using Dynamic Indicators of Basic Early Literacy Skills and received reading instruction through Read-Well during the first grade academic school year. The author reviewed the benefits of both Dynamic Indicators of Basic Early Literacy Skills and Read-Well for student success in relation to the all-day kindergarten funding.

The research paper focused on the Dynamic Indicators of Basic Early Literacy Skills scoring of students within a specific school building in the school district. The test scores were measured in the spring of the students' all-day kindergarten school year and spring of the first grade academic year of the same students to determine if significant student achievement in reading was achieved.

Delimitations:

The school district was located in a moderately sized rural town in central Washington. The economy of the town relied on agriculture and some small factories. The economy of the town had diminished with the closing of several large factory-type businesses in the area. As the economy continued to decline, more jobs were lost and income per household declined. The students in the school district were considered as moderate poverty level as measured by the free-reduced lunch program. The ethnic mix of the school district was 61.6% white,

33.5% Hispanic, 2.2% Black, 1.5% Asian/Pacific Island, 1.5% Asian and 1.2% American Indian/Alaskan Native, as found on the Office of the Superintendent of Public Instruction website for Washington State (Washington State Report Card, OSPI, 2009).

The elementary school the researcher examined had a school population of 349 as of October 2007. The population was 51% White, 39% Hispanic, 3.7% Black, 2.9% Asian, and 3.4% American Indian/Alaskan Native. The school had a high poverty rate based on an 86.8% population receiving free or reduced-price meals. The population of the school also contained 17% special education students, 24.5% bilingual students and 7.2% migrant students as found on the Office of the Superintendent of Public Instruction for Washington State's website (Washington State Report Card, OSPI, 2009).

The 3 first grade classrooms the author monitored consisted of a range of 21-23 students per classroom. The students went to varying classrooms for reading groups leveled by reading abilities. The initial placement of students was leveled according to the students' Read-Well assessment test administered at the beginning of the school year by the reading specialists within the school. As the school year progressed to the mid-year testing period, the assessment ranked the same first grade students as Intensive, Strategic, or Benchmark. Intensive students were in need of extreme reading support. Students labeled at strategic were in need of some specialized instruction, but were likely to reach the grade level

expected ability by the end of the school year. Benchmark students had achieved grade level expectations in reading. The students were placed in leveled classrooms according to the students' individual scores. The low-level classroom served 24 students ranked as Intensive with nine of the students labeled as special education. The medium and high- level classrooms served 21 and 20 students, respectfully. The medium-level classroom served students with a ranking of strategic, while the high-level students were served in the final classroom based on a ranking of benchmark. Each classroom received assistance during the reading groups from the reading specialist, Title 1 teachers, and para professionals; all trained in the curriculum used by the school district. Research of the students reading abilities began in September 2008 and were completed in May 2009.

Assumptions:

The researcher's first assumption was the teachers at the elementary school were highly qualified based on Washington state certification requirements and the students were taught the same materials and were given equal assessments. The author believed the district mandated reading curriculum for the first grade students would increase reading ability based on research and implementation of the program by trained educational staff. In accordance with the plan for the reading curriculum each classroom and teacher was supplied with the necessary instructional materials and training to adequately teach the students

in the curriculum area. The researcher also assumed the teachers, in each of the leveled classrooms, followed the 90 minute reading block for reading each day in the classroom as strongly encouraged by the school district.

As a general idea of encouraging academic growth through increased exposure to education, the author also assumed the switch to all-day; every-day kindergarten would make a strong impact on student learning and abilities as the students entered the first grade. The switch was made possible by the funding of the all-day kindergarten program by the Washington State House Bill 1209 and an all-day kindergarten grant through the Office of the Superintendent of Public Instruction for Washington State, thus the researcher believed the funding would be justified.

Hypothesis

Students progressing from all-day kindergarten through first grade reading programs using a walk-to-read reading program will make better than expected results in reading scores for the first grade students from the fall of the academic year to the spring testing as determined by pre-post Dynamic Indicators of Basic Early Literacy Skills assessments as measured by a *t*-test.

Null Hypothesis

Students progressing from all-day kindergarten through first grade reading using walk-to-read reading programs will not make better than expected results in reading scores from the fall of the academic year to the mid-year testing as

determined by pre-post Dynamic Indicators of Basic Early Literacy Skills assessment at a .05 level of significance as measured by a *t*-test.

Significance of the Project

Several small schools in the central Washington school district changed to all-day kindergarten schedules. The schools received special funding from an all-day kindergarten grant from the Office of the Superintendent of Public Instruction for Washington State to support the change to all-day kindergarten. The grant was an attempt to improve student learning in the specific schools in Washington State based on the poverty level of specific schools in the central Washington school district. The author's research attempted to determine the benefits of the all-day kindergarten program over the use of the half-day kindergarten program as seen in student reading scores measured by Dynamic Indicators of Basic Early Literacy Skills and Read Well reading program with the overall goal of improving student reading and comprehension through the use of the mandated district programs. The overall goal of the all-day kindergarten program was to raise student achievement over the students' entire academic career. Success in reading was measured in terms of "the percentage of students not meeting standard. There must be 10% reduction in the percentage of students not meeting standard compared to the previous year" (Pauley, 2008 August, p 11).

Procedure:

The author gathered the list of first grade students and compared the list of full-day kindergarten students from the previous year at the same school. The group consisted of 37 first grade students. To analyze the reading scores for the group of students, the author compared the first grade students' kindergarten spring Dynamic Indicators of Basic Early Literacy Skills test scores, as well as the same students' first grade fall Dynamic Indicators of Basic Early Literacy Skills scores to use as a comparison.

The first grade teachers used the Read-Well reading program daily within the leveled reading groups. The teacher used the research based reading program, Read-Well during the school's 90-minute daily reading block. The program consisted of two 30-minute sessions of direct instruction in small group settings in the reading and phonics areas. The final 30-minute session consisted of a whole group writing instruction period conducted by the trained classroom teacher. The whole group instruction consisted of decoding practice and letter formation techniques taught to the entire group of students.

After four months of Read-Well instruction, the first grade students completed the mid-year Dynamic Indicators of Basic Early Literacy Skills testing and the final Dynamic Indicators of Basic Early Literacy Skills testing was administered once more in the spring of the first grade academic year. The spring Dynamic Indicators of Basic Early Literacy Skills testing for the first grade

students tested the students' phonemic awareness, non-sense word identification and pronunciation, and oral reading fluency skills. The tests were administered by the trained classroom teachers and reading specialists from the same school building in the students' homeroom class. The tests were given to the students in a quiet corner of the classroom while the remaining classmates worked quietly on deskwork. The test administrator, the school reading specialist, gave oral directions and conducted the timed reading portions of the tests. The test results from the 36 kindergarten spring testing and the same 36 first grade students' spring tests were compared using a pre-post non-independent *t*-test in the Statpak program to determine significant or non-significant growth per academic year and testing period. One student was absent during the final spring testing of the first grade year due to a family trip. The student returned to school after the period of time available to record and document the test results was closed. The student's results were not included in the final *t*-test running, resulting in a reduction in participants to 36.

Definition of Terms

at-risk. An at-risk student referred to a student who failed to make measurable progress in a specific academic area and would require additional support in the academic area.

benchmark. Benchmark referred to a pre-chosen grade level accuracy by a student for each area of assessment.

DIBELS. Dynamic Indicators of Basic Early Literacy Skills was a state adopted program used to measure student-reading achievement for elementary students.

direct instruction. Direct instruction was a method of teaching in which the teacher or instructor taught a lesson directly to an individual student or group of students.

fluency. The National Institute for Literacy (2000) report defined fluency as “the ability to read a text accurately and quickly” (p 19).

intensive. The term intensive referred to students in extreme need of support and instruction in specific areas of reading instruction as measured by the Dynamic Indicators of Basic Early Literacy Skills test.

nonsense word. According to the Dynamic Indicators of Basic Early Literacy Skills official website, nonsense word recognition was “a child's knowledge of letter-sound correspondences as well as their ability to blend letters together to form unfamiliar "nonsense" (e.g., ut, fik, lig, etc.) words.”(p 2). Susan L. Hall (2006) defined nonsense word ability as a student's “ability to read two-letter and three-letter nonsense words, primarily consonant-vowel-consonant patterns” (p 37).

phoneme. Phonemes were explained as “the smallest part of the spoken language that makes a difference in the meaning of words”(Put Reading First, p 3).

phonemic awareness. Phonemic awareness was defined as “the understanding that the sounds of spoken language work together to make words” (Put Reading First, p 1).

progress monitoring. Progress monitoring was an assessment test administered to students for determining growth or needs in the academic area of reading.

Read-Well®. The Read-Well program was a research based reading program proven to improve student-reading abilities.

strategic. Strategic students were in need of additional instruction but were expected to achieve the pre-chosen level of accuracy in reading by the end of the school year as measured by a selected assessment tool.

Walk-to-Read. Students were grouped according to reading abilities and put into specific reading groups, usually in different classrooms for a 90-minute reading session.

whole group instruction. Whole group instruction was the method of teaching to an entire group of students at one time as opposed to teaching an individual.

Acronyms

AYP. Annual Yearly Progress.

EALRs Essential Academic Learning Requirements

DIBELS. Dynamic Indicators of Basic Early Literacy Skills

NCLB. No Child Left Behind

OSPI. Office of the Superintendent of Public Instruction.

WASL. Washington Assessment of Student Learning

CHAPTER 2

Review of Selected Literature

Introductions

The programs used for the author's research consisted of the Read-Well® reading program, assessments provided by DIBELS and progress monitoring. The author also researched all-day kindergarten and half-day kindergarten and the use of Harcourt reading programs as an intervention for student support and achievement. The author found all programs were proven valid and successful based on research. When all areas researched were combined, the programs supported student success in reading.

Research Based Needs for Elementary Reading:

Reading, writing and arithmetic were the only expected outcomes for past educational practices in America, but the author read the study of reading research for the state of Washington to determine the expected outcome for the students of today. In the study, the author found the outcomes were much more specific for the current teacher. The report, *Research into Practice: An Overview of Reading Research for Washington State* (June 1998), published by the Office of the Superintendent of Public Instruction, established reading norms for elementary educators. The second grade requirements for readers determined that teachers needed to focus on background knowledge, comprehension of vocabulary, fluent reading, and social accomplishment. To ensure students had the ability to

complete the second grade requirements, first grade students needed to be fluent readers. To become fluent, students needed to have comprehension of materials read, sight word abilities and fluency.

According to the Learning First Alliance (2000), reading was a vital part of life for young students. If a student did not learn to read and become confident in the student's ability to function as a reader, the beginning reader would develop life-long difficulties. How a student was taught reading was the vital key; to achieve success in reading, students needed assistance and skills, as stated by the Learning First Alliance (2000, p 2),

“To avoid leaving some children behind, all children should be taught phonetic decoding strategies, although those who acquire reading easily can quickly move through this instruction. Reading materials should feature a high proportion of new words that children can sound out using the letter-sound relationships they have been taught. Writing skills and comprehension strategies should also be taught from the earliest grades. Reading pleasure is equally important, and text should be as interesting and meaningful as possible”.

The article also described the students' need to be fluent readers. When students became more at ease with reading, the students began to read naturally and with expression. The skill of reading naturally was accomplished through the student's skill “at accurate word identification” (Office of the Superintendent of Public Instruction, 2008, p 7), the author found word identification was

accomplished through repetition in sight word usage and continued use of the sight words in readings. Successful readers combined a larger vocabulary and ability to use sight words to increase reading speed and accuracy. As stated in the National Institute for Literacy report, *Put Reading First, Kindergarten through Grade 3*(n.d.), “rapid and accurate word reading frees children to focus their attention on the meaning of what they read” (p 5).

The most interesting portion of the report on second grade procedure and accomplishments was found in the area of literacy learning. The work of social theorists implied the success of the individual within the group of readings reflected on the overall success of the group. The theory focused on the idea that students would learn more when put into social situations and in team-like surroundings. The author found the theory in action in the elementary reading classrooms. Students worked together to complete phonemic lessons and choral reading activities. The structured reading group followed the social theorists’ idea; “Children benefit from social interactions in the classroom that are carefully structured so that students have opportunities to work in their ‘zones’ of proximal development” (*Research into Practice: An Overview of Reading Research for Washington State*, 1998, p 10).

DIBELS

Dynamic Indicators of Basic Early Literacy Skills, or DIBELs, was defined as “an assessment instrument that measures how successfully a child is

progressing in the critical skills that underlie success in early reading” (Hall, 2006, p 30). Dynamic indicated the ever changing scores and success of the student. Indicator was defined as the subtests used to “quickly and efficiently provide an indication of a child’s performance and/or progress in acquiring a larger literacy skill” (Hall, 2006, p 32). The basic skills were vital to early reading. Literacy was defined as the ability to read and understand information fluently. Finally, skills referred to the key concepts in learning to read for young students.

DIBELS assessments measured two areas of phonemic awareness through Initial Sound Fluency and Phoneme Segmentation Fluency. Initial Sound Fluency required students to identify and isolate the beginning phoneme sound of each word. Phoneme Segmentation Fluency measured the students’ ability to segment two to five sound words into segments. Both tests were administered during the kindergarten school year measuring the middle level skills of phonemic awareness.

The DIBELS program was also used as a progress monitoring tool for teachers. The use of the progress monitoring was “administered primarily to students whose benchmark screening indicated that they were at some level of risk, and therefore they are receiving intervention instruction” (Hall, p 34). Progress monitoring was conducted periodically on students recording student progresses over a period of time. Charting the student progress was important to

designing interventions and instruction to meet the student's needs. Progress monitoring provided teachers with a means to manage student ability, "by charting progress and comparing interim movements in a student's scores, it is possible to estimate whether the current rate of progress is likely to result in the student reaching benchmark by year-end" (Hall, 2006, p 34).

Reliability and Validity of the DIBELS program was explained in the book, *I've DIBEL'd, Now What?* By Susan Hall, EdD, "According to Good, Gruba, and Kaminski, evidence of reliability, validity and sensitivity for DIBELS has been investigated in a series of studies (2001). Alternate form reliability of the DIBELS measures is generally considered adequate, ranging from .72 to .94 for the various indicators. The lowest reliability measure is for the ISF at .72. By repeating this measure five times on five days using multiple alternative forms, the resulting average score would have a reliability of above .90" (Hall, 2006, p 283).

Read-Well

Sopris West, a subsidiary of Cambrium Learning Company, produced Read Well. The Florida Center for Reading Research stated "Read Well was published in 1998 and incorporates research-based practices that have proven to be effective for diverse learners" (Wahl, 2007, p 3). The program was a research

based reading program. Read Well consisted of instruction in the areas of phonemic awareness and phonics, vocabulary, comprehension and fluency in the supplied short stories, direct instruction and decoding strategies. The components within the Read Well program were researched by the National Institute for Literacy in the report entitled, *Put Reading First; Kindergarten through Grade 3* as well as research conducted by the Florida Center for Reading Research in the report entitled, *Read Well*.

Phonemic awareness was “the understanding that the sounds of spoken language work together to make words” (Armbruster et all, n.d., p 1). The main building block for reading, phonics, consisted of the use of phonemes to break down a word into sections the student was able to sound out and blend to decode the new word. Phonemic awareness was taught to students as a strategy for decoding unfamiliar words. The Learning First Alliance found Reading materials “should feature a high proportion of new words that children can sound out using the letter-sound relationships they have been taught” (1998, p 3). Students needed to learn to manipulate and find the individual sounds, or phonemes, to become successful readers. Researched and stated by Armbruster et all, “phonemic awareness instruction improves children’s ability to read words” (n.d., p 5).

Phonics and phonemic awareness aided students in spelling as well as reading. Students decoded new words through sounding out each phoneme of the spoken word. As the student heard a new word, the student identified the letter

associated with the sound and was able to spell the new word correctly. The writing component was taught during one of the 30-minute sessions of whole-group direct instruction. The sounds of each letter in the alphabet was vital to student learning, as stated in publication, Put reading first: Kindergarten through grade 3: The research building blocks for teaching children to read, “teaching sounds along with the letter of the alphabet is important because it helps children see how phonemic awareness relates to their reading and writing” (Armbruster et all, n.d., p 5). Read Well was aligned with the needs of students as the program was “structured around a unique sound sequence that (1) introduces high-frequency sounds before low-frequency sounds and (2) separates easily confused sounds” (Sopris West, n.d., p 3). Students worked on phonemic awareness daily in small group settings.

The Read Well program appealed to the needs of many students with guided decoding practice, letter and word flashcards, and interesting stories that contained decodable words. All components of phonemic awareness used in the Read Well reading program worked to ensure student success in reading.

Phonics introduction alone was not an adequate source of reading skill acquisition for beginning readers. Reading introduction required phonemic awareness, reading and listening to informative and engaging stories. The Read Well reading program stated how the Read Well program instruction practices were aligned with the student reading needs, as defined by the National Institute

for Literacy. The Read Well research stated how “each unit introduces one or more letter-sound associations. Daily decoding practice introduces, maintains, and provides continuous review on the letter-sound associations and on key words that use them” (Sopris West, n.d., p 13).

The Read Well reading program also contained vocabulary instruction. Vocabulary, as a form of learning to read for beginning readers, was far more than learned definitions of new words. Vocabulary, defined by the National Institute for Literacy report, *Put Reading First; Kindergarten Through Grade 3*, consisted of four areas of vocabulary. The areas were explained as (1) listening vocabulary, the words understood by students, (2) speaking vocabulary, words students use when speaking, (3) reading vocabulary, the words students needed to know and understand to be successful readers, and (4) writing vocabulary, the words used to accomplish writing. Students learned vocabulary through the use of direct instruction and indirect instruction. Both methods were helpful to students and served the students well in the learning of simple and complex words (Armbruster et all, n.d.).

Children learned more words in daily life while listening to adults use new and interesting words and when children responded to conversation. Through indirect instruction, the words used in context gave explicit definitions of new words without direct instruction from an adult. Exposure to written texts and conversations increased student vocabulary skill; “students learn vocabulary

indirectly when they hear and see words used in many different contexts – for example, through conversations with adults, through being read to, and through reading extensively on their own” (Armbruster et all, n.d., p 30).

Direct instruction introduced new words to beginning readers. Explicit direct instruction was needed before introducing students to new texts. Important words were discussed and defined before the new materials were introduced. The direct instruction approach aided students in the comprehension of new materials and words. As stated in the National Institute for Literacy report, *Put Reading First; Kindergarten through grade 3*, “when you teach words before students read a text, directly teach those words which are important for understanding a concept or the text” (n.d., p 36).

New words were revisited several times in several different settings to help beginning readers develop the meaning and context use of new words. The Read Well reading program understood this principle and aligned the vocabulary section of the program to the needs of the readers,

Read Well built vocabulary and background knowledge by having students explore and revisit the meaning and uses of words through the program. Teacher-read text in Storybooks, Lap Books, and literature books allows for the exploration of more sophisticated language, which creates more opportunities for the introduction of new word meanings and

a richer content than is normally possible in decodable text alone (Sopris West, n.d., p 5).

Comprehension of written text and fluency, the ability to read words quickly and accurately, were just as important as vocabulary instruction. As stated in the publication, *Put Reading First; Kindergarten Through Grade 3*, “fluency is important because it provides a bridge between word recognition and comprehension” (Armbruster et all, n.d., p 19). Read Well instruction included guided reading with the teacher, introduction of new words and vocabulary and re-tell, comprehension, strategies.

“If readers can read the words but do not understand what they are reading, they are not really reading” (Armbruster et all, n.d., p 41). Comprehension supplied the reason for the readers to begin reading. The new readers needed a purpose to complete the reading training. The teacher built background in discussions and asked questions of the readers to peak the readers’ interest in the next unit of the *Read Well* program. Prior questioning was the base of the student comprehension. According to Armbruster et all (n.d.), “good readers think actively as they read”. *Read Well* provided the instructor with appropriate questions prior and during reading of the stories, the questioning strategy encouraged student thinking and active participation in the text reading.

The *Read Well* reading program provided the instruction needed to help students become readers. As stated by the United States Department of Education Institute of Education Sciences, “The *Read Well* program involves explicit, systematic instruction in English language decoding, sustained practice of skills in decodable text, and frequent opportunities to discuss vocabulary and concepts presented in the text.”(2006, p 2).

All-Day Kindergarten v Half-Day Kindergarten

Kindergarten began as an all day program, the program days were shortened to half-day after World War II. Half-day kindergarten was more popular for many years. From 1970 to 2000, the trend began to swing back to all-day kindergarten. The division between half-day kindergarten support and all-day kindergarten support was found when the discussion moved toward student ability to emotionally and cognitively handle kindergarten requirements. Supporters of all-day kindergarten believed students were capable of learning at the young age of five to six years old. Half-day supporters believed all-day kindergarten was too strenuous on the fragile, young minds of the five to six year old children. School districts responded to the need for children to build a strong foundation for the basic academic scaffolding to reach state and federal mandated benchmarks, districts used state funding to switch to all day kindergarten.

Districts felt the pressure to ensure the students met adequate yearly progress as directed by the state by changing kindergartens from half-day to full

day when funding was available, with the ultimate goal of building a strong reading foundation in the students. School districts also responded to the needs of the families within the service areas by changing, when possible by funding, to all-day kindergarten. With the onset of more single parent families and single income families, as well as households supported by both parents working, families needed an option for daycare (U.S Department of Education, June 2004). In a study conducted by Hannah Lidman, Elizabeth Yates and John R. Burbank (2007) analyzing the affects of all day kindergarten in Washington state, the researchers found if the “almost 11,000 parents in Washington to take advantage of a minimum of three additional work hours per day at \$10 per hour, these families would see a combined increase in income of \$58 million in one year” (p 11).

School districts and teachers also benefited from the change to all day kindergarten. The additional hours of teacher-student contact allowed teacher supported academic instruction in small groups and whole-group settings. Additional time was spent in full-day kindergarten classrooms on such skills as practicing writing the student’s name and writing the alphabet, both skills were vital to letter recognition and letter sounds for reading. The study conducted by the National Center for Education Statistics with the U.S. Department of Education (Walston and West, 2004) followed 20,000 students enrolled in kindergarten during 1998. The findings from the *Early Childhood Longitudinal*

Study found “almost all specific reading/language arts skills and activities are more frequently covered daily in full-day classes compared with half-day classes” (p 40).

Need Grant funding for All-Day Kindergarten Programs

The school district the researcher studied applied for an all-day kindergarten grant supported by the OSPI office. The grant was based on the poverty level reported for the schools within the school district. The poverty level was determined by the percentage of students served by the school that received free and reduced lunches during the academic year. The free and reduced lunch status was determined by the school districts approval of the student/parent application for assistance in the school district’s lunch program.

The Needs Grant through the state was disbursed to the school in the district for two years. After the two years of the initial grant, the state determined the school was still in need and benefited from the monies allocated and continued the funding.

Summary

Through the research, the author had proven the reading programs used in the school to be valid and reliable when used in the elementary reading program for student achievement. The programs used and studied in the study were aligned with the needs and ideals accepted by educators as a method to encourage

growth in reading. The programs were proven valid and reliable according to the claims made by the program producers.

CHAPTER 3

Methodology and Treatment of Data

Introduction

Taking the group of 36 first grade students, the first grade teachers taught the students reading through the Read Well reading program guidelines. The students' scores were collected from the DIBELS testing done in the fall, winter and spring sessions of the academic year. The teachers and reading specialists administered the tests to the students to ensure validity and consistency of the scores and tests given to the students.

Methodology

The researcher used a quantitative quasi-experimental study on student reading scores during a given academic year. The author began by gathering the first grade students' kindergarten spring DIBELS test scores, as well as the same students' First grade fall DIBELS scores to use as a comparison. The first grade teachers used the Read-Well reading program daily within the leveled reading groups. The 90-minute block of reading instruction in the school day consisted of two 30-minute sessions of direct instruction in the reading and phonics areas. The final 30-minute session consisted of a whole group writing instruction period with decoding practice and letter formation techniques taught to the entire group of students.

After 4 months of Read-Well instruction, the students were subjected to the DIBELS testing at the mid-academic year mark, January 2009. The mid-year DIBELS testing for the first grade students tested the students' phonemic awareness, non-sense word identification and pronunciation, and oral reading fluency skills. The tests were administered by the trained classroom teachers and reading specialists from the same building in the homeroom class. The test results from the kindergarten spring DIBELS testing and spring DIBELS tests for the same first grade students were compared using a pre-post non-independent t-test in the Statpak program to determine significant or non-significant growth per academic year and testing period.

Participants

The elementary school the researcher examined had a school population of 349 as of October 2007. The population was 51% White, 39% Hispanic, 3.7% Black, 2.9% Asian, and 3.4% American Indian/Alaskan Native. The school had a high poverty level based on an 86.8% population receiving free or reduced-price meals. The population of the school also contained 17% special education students, 24.5% Bilingual students and 7.2% migrant students (Washington State Report Card, OSPI, 2009). The researcher selected the 36 first grade students that attended the school the previous year for the full-day kindergarten classes.

The 3 first grade classrooms consisted of a range of 21-23 students per classroom. The students went to varying classrooms for reading groups leveled

by reading abilities. The initial placement of students was leveled according to the students' Read-Well assessment tests administered at the beginning of the school year by the reading specialists within the school. As the school year progressed to the mid-year DIBELS testing period, the test scores were used to rank the students as intensive, strategic, or benchmark. The students were placed in leveled classrooms according to the students' individual scores. The low-level classroom served 24 students ranked as Intensive with nine of the students labeled as special education. The medium and high- level classrooms served 21 and 20 students, respectfully. The medium-level classroom served students with a ranking of strategic, while the high-level students were served in the final classroom based on a ranking of benchmark. Each classroom received assistance during the reading groups from the reading specialist, Title 1 teachers, and para professionals; all trained in the curriculum used by the school district.

Instruments

The author tracked 36 students identified as students from the first year of all-day kindergarten through the first grade academic year at the elementary school where the study was conducted. The kindergarten spring DIBELS test scores were collected and reviewed against the first grade spring DIBELS scores to determine if growth had been made for the students in the study.

Research of the students' reading abilities and scores began in September 2008 and was completed in May 2009. Occasional problems occurred in the low-

level classroom from the behavior, special education and autistic students that distracted the remainder of the students from the content and instructional applications.

The use of progress monitoring was “administered primarily to students whose benchmark screening indicated that they were at some level of risk, and therefore they are receiving intervention instruction” (Hall, p 34). Progress monitoring was conducted periodically on students recording student progresses over a period of time. Charting the student progress was important to designing interventions and instruction to meet the student’s needs. Teachers used the results to determine student needs, “by charting progress and comparing interim movements in a student’s scores, it is possible to estimate whether the current rate of progress is likely to result in the student reaching benchmark by year-end” (Hall, 2006, p 34). The DIBELS scores were used in the classrooms to determine the students’ levels for the reading groups and indicated the areas of need for the students.

Design

The quasi-experimental study consisted of the pre-post DIBELS scores of a first grade population. The students’ pre-test scores were collected in May of the previous year using DIBELS testing and a computer website to track scores. The post-test scores were collected in May of the following academic year, using

the same methods of DIBELS testing within the classroom and administered by trained educational staff.

Procedure

The author gathered the 36 first grade students' kindergarten spring DIBELS test scores, as well as the same students' first grade spring DIBELS scores to use as a comparison. The first grade teachers used the Read-Well reading program daily within the leveled reading groups. The 90-minute block of the school day consisted of two 30-minute sessions of direct instruction in the reading and phonics areas. The final 30-minute session consisted of a whole group writing instruction period with decoding practice and letter formation techniques taught to the entire group of students. After 4 months of Read-Well instruction, the students completed the DIBELS testing again. The final DIBELS testing for the first grade students was administered in the spring of 2009 and tested the students' phonemic awareness, non-sense word identification and pronunciation, and oral reading fluency skills. The tests were administered by the trained classroom teachers and reading specialists from the same building in the homeroom classrooms. The students were tested in a quiet corner of the classroom while the remainder of the students worked quietly at the students' desks. The test results from the kindergarten spring DIBELS testing and first grade spring DIBELS tests for the same 36 students were compared using a pre-

post non-independent *t*-test in the Statpak program to determine significant or non-significant growth per academic year and testing period.

Treatment of Data

The author collected kindergarten spring DIBELS scores for the 36 in the experimental group of students and ran a non-independent t-test to determine significance of the scores. The first grade academic year's spring DIBELS scores were collected and a the researcher ran a mean and standard deviation for both sets of data. The author then ran the students' spring kindergarten DIBELs scores and spring DIBELs first grade scores as a non-independent t-test to determine the significance of the scores. All tests were found in the computerized Statpak program.

Summary

The students were selected based on the attendance of the school the previous academic year and continued registration in the same school during the following first grade academic year. The students were taught using the district mandated reading curriculum, Read Well, for the primary grades. During the first grade academic year, the 36 students were tested using DIBELs testing and the scores were recorded to chart success or struggles of the students. The data was run using a computerized data program, Statpak, to determine significance or non-significance of the Reading program and the benefit of the previous year's all-day kindergarten program. The researcher assumed the implementation of the all-day

kindergarten classes the previous academic year would greatly impact reading scores for the 36 first grade students.

Chapter 4

Analysis of the Data

Introduction

The author did the study to determine the effects of all-day kindergarten on students the following year during the first grade academic year by following the students' *DIBELS* scores. The kindergarten teachers had voiced a belief in the reading ability growth in students based on the use of the all-day kindergarten program and the researcher wanted to determine if the all-day kindergarten-funding grant did in fact increase student ability in reading.

Description of the Environment

Students began the year in four first grade classrooms, five weeks into the school year one of the first grade teachers was moved to kindergarten due to overpopulation of the kindergarten classrooms. The students from the diminished first grade room were divided among the remaining three first grade teachers based on behavior, special education needs and classroom sizes. The move of the students also affected the reading groups and population in each of the three classrooms. Problems occurred in the low-level classroom from the behavior of special education and autistic students on occasion, which distracted the remainder of the students from the content and instructional applications.

Hypothesis

Students progressing from all-day kindergarten through first grade reading programs using a walk-to-read reading program will make better than expected results in reading scores from the fall of the academic year to the mid-year testing as determined by pre-post *DIBELS* assessment.

Null Hypothesis

Students progressing from all-day kindergarten through first grade reading using walk-to-read reading programs will not make better than expected results in reading scores from the fall of the academic year to the spring testing as determined by pre-post *DIBELS* assessment at a .05 level of significance as measured by a *t*-test.

Results of the Study

Table 1.

t-test for pre-post Non sense word fluency for first grade students

test	N	Mean	Standard Deviation
Pre	36	29.81	20.77
Post	36	71.92	26.73

df= 35

t = 12.52

p < .001

The null hypothesis was rejected. The *t*-test for non-sense word identification indicated greater than expected growth in student abilities as measured by the pre-post DIBELS test scores. The test scores for the DIBELS can be found in the appendixes on page 43.

Table 2.

t-test of pre-post Phoneme Segmentation for first grade students

Test	N	Mean	Standard Deviation
Pre	36	39.94	15.59
Post	36	50.78	11.41

df= 35 $t = 4.56$ $p < .001$

The null hypothesis was rejected. The *t*-test for phoneme segmentation indicated greater than expected growth in student achievement as measured by the pre-post DIBELs test scores. The test scores can be found in the appendixes on page 43.

Findings

The results appeared to show students' growth from kindergarten spring to first grade spring had increased significantly. The amount of time designated to the kindergarten reading program was increased due to the use of the OSPI's allocation of all-day kindergarten funds. The state funds were allocated to schools with high levels of poverty students within the service area as reported through the percentage of free-reduced lunch students at the given school.

Students received specialized instruction through the kindergarten Read Well reading program. The results of the *t*-test indicated the use of government funding for all-day kindergarten was, in fact, a great influence of student abilities in reading during the student's first grade academic year.

Discussion

The study conducted hoped to prove the positive impact of all-day kindergarten on the reading scores of the first grade students. The results supported the assumptions made by the author revolving around the idea of increased exposure to reading materials. The increase in reading skills and activities would increase student reading abilities and scores. The findings from the *Early Childhood Longitudinal Study* found "almost all specific reading/language arts skills and activities are more frequently covered daily in full-day classes compared with half-day classes" (p 40). The switch to all-day

kindergarten allowed the students more time in the classroom and instruction time from the teachers. The increase in exposure to skills, direct instruction and indirect instruction proved to be a positive impact on student reading in the first grade-reading curriculum.

Summary

The DIBELS scores for the first grade students' phoneme segmentation fluency and non-sense word fluency increase greatly between the kindergarten spring testing date and the same students' first grade spring DIBELS scores. The null-hypothesis was rejected based on the great significance found in the test scores for phoneme segmentation fluency. The null-hypothesis for non-sense word fluency was also rejected given the great significance found in the test scores for the first grade students.

CHAPTER 5

Summary, Conclusions and Recommendations

Summary

All-day kindergarten funding was supplied by a state grant. Many educators assumed the funding of more teacher contact time during the kindergarten year would positively affect student-reading scores for the same students during the first grade school year. The author wanted to determine the effectiveness of the use of a state funded all-day kindergarten program on the reading abilities and scores of first grade students in a rural community. Students were selected based on the students' enrollment in the previous year's all-day kindergarten at a selected school and the continued enrollment in the same school during the first grade academic year. Of the students in the selected school, 36 students qualified for the study on the basis of continuous enrollment.

The students were tested during the kindergarten year and the following first grade year. The students' scores were evaluated for significance and were then run using a non-independent *t*-test to determine the significance of the all-day kindergarten year on the reading scores of the students' first grade academic year.

Conclusions

Today's research is more positive toward all day kindergarten than previously noted and the walk-to-read program is effective in reaching students according to ability levels. The use of selected reading curriculum, such as Read-Well, has proven to increase student learning and reading abilities. With all-day kindergarten classes utilizing the Read-Well reading program and allowing for longer teacher contact times, student scores have increased for the first grade students. A larger impact on student scores would be the use of the state funded need grant to support the switch to all-day kindergarten at schools selected to receive the grant monies.

The author conducted the tests and reviewed the findings using a statpak program and determined the use of all-day kindergarten significantly increased first grade student reading scores. The first grade scores impacted were phoneme segmentation fluency and non-sense word fluency because the two tests were the only tests used in both the kindergarten and first grade DIBELS testing program.

Recommendations

The author would suggest a continuation of the study as a means to validate the findings further. The research should continue through second and third grade years for the 36 students to monitor and chart reading levels and abilities. The study could also be conducted on the current all-day kindergarten class to determine the consistency of the results in reading scores for all students

participating in all-day kindergarten programs and monitoring the new participants through the first and second grade levels.

As students move on to the second grade, a different reading program is implemented at the school. The researcher should continue to run the non-independent *t*-tests on the students to chart progress and determine the extended growth and abilities in reading for the group of students originally studied by the author, as well as the impact of a new reading curriculum on student achievement.

The original use of the walk to read program could be discontinued and in the place of the program currently used, the researcher could use a classroom based reading program and monitor student learning. The use of a different configuration could validate the use of a walk to read program, as well as the use of an all-day kindergarten program, depending on the outcome. Read Well stresses the use of small group settings to support a team unity and success, if the walk to read model is replaced with a modified contained classroom model, perhaps the outcome would differ.

REFERENCES

Armbruster PhD, Bonnie B., Lehr MA, Fran, and Osborn M Ed, Jean. (n.d.). *Put reading first: Kindergarten through grade 3: The research building blocks for teaching children to read.* National Institute of Literacy: The Partnership for Reading. (Third edition). Jessup, Maryland.

Beghetto, Ron (2003-04-00). *Scientifically based research.* ERIC Digest. Retrieved on March 13, 2009 from <http://www.ericdigests.org/2003-5/based.htm>

Haglund, J. (2008). *Full day kindergarten advantages and disadvantages.* Retrieved September 7, 2008 from Wisconsin Department of Public Instruction website <http://www.dpi.state.wi.us/ec/ecadflpg.html>

Hall Ed.D., Susan. (2006). *I've DIBEL'd, Now what?.* Sopris West Educational Services. Longmont, Colorado.

Hergert, Leslie F., EdD, Gleason, Sonia Caus, Urbano, Carole, North, Charlotte. (2009 March). *How eight state education agencies in the Northeast and Island Region identify and support low-performing schools and districts.* Retrieved on March 28, 2009 from U.S. Department of Education website http://ies.ed.gov/ncee/edlabs/regions/northeast/pdf/REL_2009068.pdf.

Howard, P. (2005, May). *Dynamic Indicators of Basic Early Literacy Skills (DIBELS).* Florida Center for Reading Research. Retrieved September 6, 2008 from http://www.fcrr.org/assessment/pdf/faqs/dibels_faqs_052005.pdf

Learning First Alliance. (1998, June). *Every Child Reading: An Action Plan of the Learning First Alliance.* Retrieve on March 13, 2009 from <http://www.learningfirst.org/lfa-web/rp?pa=doc&docId=46>

Lee, V.E., Burkham, D.T., Ready, D., Honigman, J., & Meisels, S.J. (2005, May). *Full-day vs. half-day kindergarten: In which program do children learn more?* Retrieved September 7, 2008 from http://school.elp.k12.mi.us/kindergarten-study/Full-Half_U_of_M_study_V_Lee_et_al.pdf

Lidman, Hannah, Yates, Elizabeth, Burbank, John R. (July 2007). *The full story on full day kindergarten; an analysis of full-day kindergarten in Washington State*. Retrieved on March 13, 2009 from
http://www.eoionline.org/early_learning/reports/FullStoryOnFullDay-Jul07.pdf

National Center for Education Statistics. (2008). *Special analysis 2003 reading-young children's achievement and classroom experiences*. Retrieved September 7, 2008 from
<http://nces.ed.gov/programs/coe/2003/analysis/sa03a.asp>

Office of the Superintendent of Public Instruction (1998 June). *Research into practice: An overview of reading research for Washington State*. Olympia, Washington.

Office of the Superintendent of Public Instruction. (2008). *Washington Assessment of Student Learning* (WASL). Retrieved September 8, 2008 from <http://www.k12.wa.us/assessment/WASL/default.aspx>

Office of the Superintendent of Public Instruction. (2008). *Washington state report card*. Retrieved on February 6, 2009 from
<http://reportcard.ospi.k12.wa.us>

Pauley, Gayle. (2008 August 1). *AYP Questions and Answers*. State of Washington Superintendent of Public Instruction. Retrieved February 6, 2009 from <http://www.k12.wa.us/ESEA/AdequateYearlyProgress.aspx>

Publication Manual of the American Psychological Association. (Fifth edition). (2001). Washington, D.C.: American Psychological Association.

Sopris West Educational Services. (2009). Read Well Overview; Research Based and Proven Effective. Cambridge Learning Company. Retrieved on February 9, 2009 from
http://store.cambiumlearning.com/Resources/Research/pdf/sw_Research_ReadWell_RB01.pdf

Stecher, Brian M., Chun, Tammi, Barron, Sheila, Ross, Karen. Rand (2000). *The effects of the Washington state education reform on schools and classrooms: Initial findings*. Retrieved on March 13, 2008 from
http://www.rand.org/pubs/document_briefings/2005/RAND_DB309.pdf

University of Oregon Center on Teaching & Learning (2008). *DIBELS data system*. Retrieved September 6, 2008 from
<https://dibels.uoregon.edu/docs/dibelsinfo.pdf>

U.S. Department of Education. (2004 June). *Full-day and half-day kindergarten in the United States: Findings from the early childhood longitudinal study, kindergarten class of 1998- 99*. Washington D.C.: National Center for Education Statistics.

U.S. Department of Education Institute of Educational Sciences. (2006 September 21). *Read Well*. What Works Clearinghouse. Retrieved on March 13, 2009 from
http://ies.ed.gov/ncee/wwc/pdf/WWC_ReadWell_092106.pdf

Wahl, Michelle. (August 2007). *Florida center for reading research: Read Well*. Florida Center for Reading Research. Retrieved on March 13, 2009 from http://www.fcrr.org/FCRRReports/PDF/Read_Well_Report.pdf

Walston, J.T., and West, J. (2004). *Full-day and half-day kindergarten in the United States: Findings from the early childhood longitudinal study 1998-99*(NCES 2004-078). U.S.Department of Education, National Center for Education Statistics. Washington D.C.: U.S. Government Printing Office.

Washington Institute for Public Policy (March 2007). *Benefits and costs of K-12 educational policies: Evidence-based effects of class size reductions and full-day kindergarten*. Retrieved on March 15, 2009 from
<http://www.wsipp.wa.gov/rptfiles/07-03-2201.pdf>

APPENDIXES

DIBELS Scores for Research Group

Student	Kinder spring Phoneme Segmen.	1 st grade fall Phoneme segmen.	1 st mid- year Phoneme segmen.	1 st grade spring Phoneme segmen.	1 st fall Non Sense Word fluency	1 st mid- yr Non- Sense Word fluency
1	4	11	9	44	25	14
2	7	0	27	16	14	33
3	36	44	43	42	17	33
4	3	18	36	56	3	6
5	35	41	71	38	14	43
6	38	50	53	57	45	75
7	39	34	59	53	15	44
8	41	27	44	44	10	16
9	41	35	54	59	47	82
10	38	2	41	33	22	24
11	38	31	38	40	15	40
12	64	49	37	64	19	36
13	20	39	46	48	22	58
14	61	44	54	57	29	93
15	44	35	47	36	35	39
16	52	49	60	55	53	130
17	42	21	43	59	22	27
18	59	43	58	72	60	101
19	54	42	41	48	31	93
20	44	25	33	41	14	27
21	43	49	53	61	17	40
22	46	45	56	53	98	142
23	20	32	51	53	22	40
24	59	38	42	44	23	25
25	17	0	27	40	13	16
26	52	51	62	59	37	56
27	55	42	52	63	8	50

Student	Kinder spring Phoneme Segmen	1 st grade fall Phoneme segmen	1 st mid- year Phoneme segmen	1 st grade spring Phoneme segmen	1 st fall Non- sense word fluency	1 st mid- yr Non- sense word fluency
28	24	36	49	44	64	121
29	46	26	38	52	7	25
30	47	66	77	51	76	116
31	31	15	46	53	16	49
32	32	34	54	56	23	84
33	55	45	77	54	19	53
34	55	50	77	72	47	53
35	45	42	32	41	41	52
36	51	22	77	70	50	95