Reading Intervention at Bridgeport

Elementary School

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A Special Project

Presented to

Dr. Robert P. Kraig, PhD.

Heritage University

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In Partial Fulfillment

of the Requirement for the Degree of

Master of Education

_____

Norma Fonseca

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FACULTY APPROVAL

Reading Intervention at Bridgeport

Elementary School

A Master's Special Project

by

Norma Fonseca

Approved for the Faculty

_____, Faculty Advisor

Dr. Robert P. Kraig

_____, Date

ABSTRACT

Reading Intervention

Researcher: Norma Fonseca, M.Ed., Heritage University

Chair Advisory Committee: Robert P. Kraig, PhD.

The purpose of the study was to investigate the amount, content and implementation of reading instruction that would improve the DIBELS scores at the end of the year. On average across the 90 minute reading block the teacher provided thirty additional minutes a day of practice on letter naming to kindergarten students in group intervention.

The results of the study indicated that the intervention is needed and providing the extra 30 minutes of intervention made a difference in their ability to go beyond the expectations of the target.

As a result of this study, it is recommended that teachers provide an intervention. This helped the students increased the ability in vocabulary and become more confident in reading words.

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CHAPTER 1

Introduction

<u>Background for the Project</u>

The No Child Left Behind Act (NCLB) of 2001 was the motivating force
that drove the decisions made by school districts statewide. In order to achieve the
desired scores on the Washington Assessment of Student Learning (WASL),
created by the NCLB, the districts had to evaluate the students' performance on
the reading assessments. If the students were not improving their scores (Burke,
Hagan-Burke, Kwok, & Parker, Feb2009) interventions would be carried out to
help do so, therefore increasing their chances of scoring higher on the 4th grade
WASL.

Students were tested in the 2008-2009 school year and it was determined
that reading WASL scores were at a low 56.9% and in the previous school year it
was even lower the score was 55.9%. The WASL was also a huge inspiration for
teacher's to increase the amounts of interventions in order to help the students'
achievement on the test.

<u>Statement of the Problem</u>

The focus of the study was narrowed down after looking at the Dynamic
Indicators of Basic Early Literacy Skills (DIBELS) testing scores for the 2008-

2009 school years it became clear that letter naming was a concern for the 2008-2009 kindergarten class at Bridgeport Elementary. The average DIBELS scores in the area were lower than the previous year in the kindergarten class. In the 2007-2008 year all of the kindergarten students at Bridgeport performed at or above the standard on the DIBELS testing. The 2008-2009 kindergarten students at Bridgeport Elementary needed additional practice of the letter naming. The goal was then set to increase the DIBELS scores to 90% of the kindergartens performance at or above the standard for the 2008-2009 school years.

The focus of study was to help students reach the 90% goal on letter naming to improve their ability to read vocabulary words with confidence. The end results were to do interventions for thirty minutes daily on practicing letter naming. These interventions were chosen to help accomplish the goal of increasing students' ability to read vocabulary words and increase student performance on the DIBELS test.

Purpose of the Project

The purpose of this study was to determine if practicing the letter naming intervention for thirty minutes daily increased students' achievement on the DIBELS scores.

<u>Delimitations</u>

The study was delimited to one kindergarten class in Bridgeport Elementary School District, located in Bridgeport, Washington. There were nineteen students in the whole class. This study was conducted during the 2009-2010 school year. The enrollment at Bridgeport School District during the time of the study was seven hundred and seventy five students. According to the [Office of Superintendent of Public Instruction](#) (OSPI) the ethnic make-up of Bridgeport Elementary School was as followed: American Indian/ Alaskan Native 0.8%, Black 0.4%, Hispanic 87.4% and White 0.4%. The population of students who qualify for free and reduced lunch was 87.5%. The on-time graduation rate was at 78.1% and the dropout rate was at 4.5%.

The assessment tool used to gather data was the DIBELS reading letter naming assessments. The students were individually evaluated during the initial assessment as well as the post intervention assessment.

<u>Assumptions</u>

In this study the assumption was made that the students were completely focused on the DIBELS letter naming assessment, during the initial assessment and the post assessment. The second assumption was made that the students gave complete concentration during the class time that was spent on the intervention.

The third assumption was that the person managing the DIBELS assessments administered them properly for the students who were in the study.

Hypothesis

The kindergarten students who receive thirty minutes daily of interventions on letter naming will score higher than their expected target on DIBELS, which is in eight in the fall twenty seven in the winter and forty at the end of the school year. Students who participated in the thirty minute intervention will have a higher confidence level than the students who did not participate in the intervention program.

Null Hypothesis

There will be no significant differences between students who participated in the letter naming interventions as a supplement to the standard district curriculum. The confidence level of students participating in the intervention will be the same than the students who did not participate.

Significance of the Project

The intention of this project was to present an accurate base of evidence regarding the effectiveness of the thirty minutes in letter naming interventions. The project examined the evidence to determine if the thirty minute interventions

were successful in raising students' letter naming scores by a considerable

magnitude.

Procedure

    For the purpose of this project, the following procedures were

implemented:

1. Permission to conduct research at Bridgeport Elementary School was

    granted by Principal Michael Porter (see Appendix A).

2. A review of chosen text was conducted at Heritage University,

    Bridgeport Elementary School, and through internet search engines.

3. Permission to use the 30 minute interventions was granted by

    Bridgeport Elementary School Reading Coach Amy Porter (see

    Appendix B).

4. The DIBELS letter naming assessments were given to the all students

5. Scores from the DIBELS assessment were tabulated for the second

    semester. (see Appendix C).

6. Results from the students' reading confidence survey were tabulated

    and graphed (see Appendix D).

7. The 30 minutes of letter naming practice interventions were

    implemented in the classroom by the teacher on January 10, 2010.

8. DIBELS scores were tabulated third semester. (see Appendix E).

9. Outcome from the study was inspected, assessed, and findings were drawn.

10. A gathering was accomplished to establish the effectiveness of the plan and make a choice in regard to view achievement across the ranking level.

Definition of Terms

For the purpose of this study, the following words are defined:

Dynamic Indicators of Basic Early Literacy Skills. An assessment that is used commonly for early reading skills with subtests designed to measure phonemic awareness, comprehension, fluency and phonics. (Riedel, 2007).

No Child Left Behind Act. The major focus of No Child Left Behind 2001 (also known as NCLB) is to provide all children with a fair, equal, and significant opportunity to obtain a high-quality education. The U.S. Department of Education is emphasizing four pillars within the bill:

1. Accountability: to ensure those students who are disadvantaged, achieve academic proficiency.

2. Flexibility: Allows school districts flexibility in how they use federal education funds to improve student achievement.

3. Research-based education: Emphasizes educational programs and practices that have been proven effective through scientific research.

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4. Parent options**:** Increases the choices available to the parents of students attending Title I schools. (OSPI www.k12.wa.us/ESEA/default.aspx).

Grade Level Expectations (GLE's). GLE's describe the precise performance-based knowledge and skills that students must acquire. Each GLE is supported by at least one bulleted action statement. (OSPI)

www.k12.wa.us/assessment/Alternative Assessment/ pubdocs /PrinAdmin/

TEACHERSGUIDETOTHEWAAS-PORTFOLIO.pdf

<u>Acronym</u>

BES. Bridgeport Elementary School

DIBELS. Dynamic Indicators of Basic Early Literacy Skills

EARL's. Essential Academic Learning Requirement

GLE's. Grade Level Expectations

NCLB. No Child Left Behind Act

OSPI**.** Office of Superintendent of Public Instruction

WASL. Washington Assessments of Student Learning Requirements

CHAPTER 2

Review of Selected Literature

<u>Introduction</u>

This chapter has been organized around the following topics: (a) No Child

Left Behind, (b) DIBELS Assessment, (c) Intervention/Direct Instruction, (d)

Early Childhood Instruction, and (e) summary. Bridgeport Elementary school

students were not meeting their target in DIBELS for letter naming. The

researcher sought to determine if students who received thirty minutes of letter

naming intervention would score higher on their DIBELS target than those

students who had no intervention.

<u>The No Child Left Behind</u>

The No Child Left Behind Act was established under the education Act

(ESEA) of 1965 but was reorganized in 2002 and it was to be implemented in

2002. The bill was passed in order for the United States to become more

responsible for students' test scores in math and reading. This bill focused mainly

on helping those students who had normally been left behind. It was also up to the

states to come up with their own tests, but the assessment had to include

responsibility, parent options, research-base education and flexibility. The

(NCLB) Act has set several important goals. They were as followed, number one

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closing the achievement gap between subgroups of students, which include

minority students, special education students English language learners and White

students. Number Two was improving teacher quality. Number Three was

achieving 100% proficiency for all students in Mathematics and English language

by the year 2014.

According to Cronin (2005) some factors may attribute to having a higher

academic improvement for White students more than the Hispanic, African-

American, and Native American; therefore, the achievement gap could be

widening between the minority students and the White student. Mathis (2006)

noted that the lack of financial support was another major problem in the

implementation of the NCLB Act.

According to Borkowski (2006) they had pointed out, that in order to

close the achievement gap between lower achieving and higher achieving

students, there needed to be extra funds in support of resources and programs that

enhanced the quality of education. Unfortunately, funds allocated were not

sufficient in supporting these activities

According to Fuller (2007) the major goal of the NCLB was to close the

achievement gap by 2014; however many other researchers founded that this goal

will not be achieved and have had found that to meet this, there has to be 5 to 6%

annual progress rate for lower-achieving groups. Borkowski (2006) mentioned that the aim of the NCLB was driven by ideology rather than scientifically –based research studies.

Darling (2006) noted that the NCLB Act has stated ambiguous criteria in improving quality of teachers in elementary and high school. The NCLB required states to hire highly qualified teachers and develop a plan to meet this requirement but the NCLB has had a negative impact on quality of teachers in rural schools. Jimerson (2005) had discovered that many rural schools were attracting lower performing teachers because many of these institutions tend to be labeled as being a failure, thereby losing their effective teachers to higher-performing schools due to job securities that many higher achieving schools offer to them and schools were spending more time on reading and math and not in other subjects that were not tested. For schools to find extra time for reading and math because of their demand on testing they were letting the other subjects fall through the cracks, for example Social Studies and Science and 71% of districts were reducing time spent on other subjects in elementary schools at least to some degree.

DIBELS Assessment

Due to the No Child Left Behind Act which was test driven, schools all over the nation were using DIBELS (Dynamic Indicators of Basic Early Literacy

Skills); this program was endorsed by the Federal Reading First Grant. This program was designed to assess fluency on a range of reading-related tasks and provided assistance to states and districts to establish scientifically based reading programs for students enrolled in kindergarten through grade three. Funds supported increased professional development to ensure that all teachers have the skills they need to teach these programs effectively. The program also supported the use of screening and diagnostic tools and classroom-based instructional reading assessments to measure how well students were reading and to monitor their progress.

Deno (1970) developed the DIBELS Assessments based on measurement procedures for Curriculum-Based Measurement (CBM), which were created by Deno and colleagues the Institute for Research and Learning Disabilities at the University of Minnesota in the 1970s-80s. DIBELS Assessments were comprised of seven measures to function as indicator of phonemic awareness, alphabetic principle, accuracy and fluency with connected text, reading comprehension, and vocabulary. DIBELS Assessments were designed for use in identifying children experiencing difficulty in acquisition of basic early literacy skills in order to provide support early and prevent the occurrence of later reading difficulties.

According to Good (2002) DIBELS Assessments was used to screen all kindergarten students at the beginning of the school year. DEBELS Assessments were composed of subtests that were standardized, individually administered fluency measures. The subtests used for screening in fall of kindergarten were on Initial Sound Fluency and Letter Naming Fluency. DIBELS Assessments calculations scored at benchmark (i.e., Tier 1 with no supplementary support indicated), those who needed strategic support(i.e., Tier 2 instruction) or those who needed intensive support(i.e., Tier 3 instruction) to predict success in first grade reading.

DIBELS Assessments claimed great success in regards to its use in documenting reading progress and predicting success on consistent testing and it was also used to group students for instruction and doing interventions. Good (2001) noted that DIEBLS Assessments were a set of sub lexical fluency measures developed for identifying whether children were mastering the necessary skills to become successful readers.

Metsala (1988) noted that the DIEBLS Assessments scores were valid for predicting the more complex alphabetic skills that typify the developmental phases of reading development. According to Pedhazur (1997) path analysis was a multivariate technique for establishing the predictive validity of DIEBLS

Assessments as well as providing insights on how phonological and alphabetic

skills were related over time.

Wilde (2006) noted that is it fair to conclude that DIBELS "scientific

evidence" was insufficient, over-stated, and unable to meet the criteria set forth in

NCLB for independent, rigorous, scientifically based reading research. It was

therefore imperative that independent researchers conduct and report studies that

investigate the effect DIEBLS had on teaching practices and student learning,

initial reports were not favorable.

Carlisle (2004) found that DIBELS was unable to accurately predict the

learning trajectory of over 40% of the students tested. Kamii (2005) found no

evidence to justify the use of the DIBELS in evaluating literacy instructional

programs.

<u>Reading Intervention</u>

Ehri (2001) noted that early supplementary phonological awareness

training was widely held to be beneficial for children at risk of developing reading

difficulties, especially when combined with phonics training (linking phonemes to

letters in print). According to Scott-Little (2006) reading skills were considered

the important prerequisite skills students needed to master to succeed

academically in later grades. Meisels (1999) noted the following also needed to be

included (a) physical health and motor development, (b) socioemotional development, (c) approaches to learning, (d) language and communication development(e.g., Listening, questioning), (e) early literacy skills (e.g., literature awareness, book and print awareness), and (f) cognition and general knowledge (e.g., finishing tasks, turn taking, following directions).

According to Bursuck (2004) results of experimental studies also supported the need for early academic intervention for students at risk for reading failure to ensure academic succeed in later grades. Foorman (2003) noted that the aim of these early interventions was to target the phonological core deficit in poor readers, and was widely thought that this can best be achieved thought additional, intensive phonological training that was delivered on a one to one or small group basis.

According to Frontezak (2004) embedding intensive instructional opportunities meant team members followed children's lead, created multiple and varied practice opportunities , and ensured timely and logical feedback regarding their performance on a targeted skills. It was important to develop an intervention plan after identifying target skills and it was a teaching tool used to systematically guide intensive instruction.

Grisham (2005) noted that intervention plans provided teams with guidelines on how to systematically address targeted skills by creating multiple and varied embedded learning opportunities. The intervention consisted of three pieces of information or components including antecedent(s), the target child behavior, and associated consequence(s).

According to May (1997) and other researchers, they had suggested that the most important school readiness practice was to individualize instruction to the child's needs. Duncan (2007) noted that although there was no disagreement that a successful early elementary school experience was highly predictive of later positive academic outcomes the early intervention literature suggests there was a difference in opinion as to relative importance of early academic skills and early readiness skills and when academic interventions should begin.

According to Adams (1990) students entering kindergarten varied in the amount of preparation they needed and received before learning to read. While some had only sporadic exposure to pre-reading activities, others engaged in several thousand hours of such activities with their parents and in preschool programs.

Velluntino (1996) noted that some students needed direct instruction in analyzing and segmenting words as an essential step to progress in reading.

Without such instruction some students fell so far behind their peers that they appeared to be learning disabled. Indeed, student response to direct and intensive instruction at the early stages as a diagnostic criterion for distinguishing "easily remediation "students from "difficult to remediate" or truly disabled student was noted. This research strand suggested such students should receive intensive instruction in reading as a necessary prerequisite before being classified as in need of special education. According to Adams (1998) intervention research provided compelling evidence that phonemic awareness, alphabetic understanding and decoding were teachable.

Early Childhood Instruction

Newman (2002) noted that research base statement stressed that for children to become skilled readers, they needed to develop a rich language and conceptual knowledge base, a broad and deep vocabulary and verbal reasoning abilities to understand messages conveyed through print. Research also recognized that children must also develop a code-related skills, an understanding that spoken words were composed of smaller elements of speech (phonological awareness), and the idea that letters represent these sounds (the alphabetic principle), and the knowledge that there were systematic correspondences between sounds and

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spelling. Therefore children must have acquired these skills in coordination and interaction with meaningful experiences.

Beck (2004) noted that teaching vocabulary in depth in preschool has been found to be very effective in promoting reading comprehension. According to Torgesen (1988) phonological and alphabetic automaticity was often learned in preschool and kindergarten, where effective instruction results in the rapid, fluent, and context-free retrieval of component skills.

Cunningham (1986) noted that children who lacked adequate reading skills in first grade were less likely to become proficient readers as they advanced thought higher grades.

Adams (1990) noted that it was estimated that one in three children experience significant difficulties in learning to read. According to Lentz (1988) and other researchers, research conducted during the past two decades has produced extensive results demonstrating that children who get off to a poor start in reading rarely catch up. Juel (1988) noted that a child who was a poor reader in first grade was 88% more likely to remain a poor reader in fourth grade. According to Clay (1993) it was not surprising, the early years were the focus for the prevention of reading difficulties.

Dickinson (1994) noted that research has identified key foundational skills that were necessary for children entering kindergarten to succeed in learning to read (i.e., language, phonological awareness, print knowledge). Dickinson (2006) noted that talk may be cheap, but it's priceless for developing young minds and research confirmed the importance of language interaction and its profound influences on vocabulary development and reading proficiency. According to Schulting (2005) many young students entered kindergarten lacking readiness skills necessary for successful adjustment to school.

Snow (1998) noted that early emphasis on academic skills has also been recommended by national committees and organizations such as The National Research Council's Committee on the Prevention of Reading Difficulties in Young Children. According to Vellutino (1991) a growing consensus in the research literature has found that direct, early instruction based upon an integration of "meaning-based" strategies (emphasizing comprehension) and "code-oriented" strategies (emphasizing the alphabetic principle) resulted in significant improvements in reading achievement.

Stanovich (1986) noted that early intervention in reading has been related to success students had in their academic years. This intervention in reading may have been particularly important for students who had phonological coding

deficits that resulted in the accrual of Matthew effects. These interactions have been found to impede such functions as vocabulary development and reading comprehension, thereby affecting a student's ability to gain from instruction. According to Ball (1991) phonological and linguistic awareness have demonstrated correlations to success in learning to read.

<u>Summary</u>

The focus of this chapter was to address the available evidence to the topics of (a) No Child Left Behind, (b) DIBELS Assessment (c) Intervention/Direct Instruction, (d) Early Childhood Instruction. The methodology and treatment of the data are reported in the following chapter number 3.

The No Child Left behind Act and the NCLB Act were established to make the United States more responsible for student's test scores in Math and Reading. That ended up mandating the schools to meet the standards and close the achievement gap. Bridgeport Elementary School was having troubles in closing the gap in reading. In order to close the gap kindergarten student's needed help in meeting the goal on letter naming that are measured with the DIBELS test.

The hypothesis was that the kindergarten students who receive thirty minutes daily of interventions on letter naming will score higher than their expected target on DIBELS. Research showed that DIEBLS Assessments were a

set of sub lexical fluency measures developed for identifying whether children

were mastering the necessary skills to become successful readers.

CHAPTER 3

Methodology and Treatment of the Data

Introduction

       This chapter has been organized around the following topics: (a)

Methodology, (b) Participants, (c) Instruments, (d) Design, (e) Procedure, (f)

Treatment of the Data, (g) Summary. After looking at the Dynamic Indicators of

Basic Early Literacy Skills (DIBELS) testing scores for the 2008-2009 school year

it became clear that letter naming was a concern for that kindergarten class at

Bridgeport Elementary. Those kindergarten students needed additional practice of

letter naming. The goal was then set to increase the DIBELS scores to 90% of the

kindergartner's performance at or above the standard for the 2008-2009 school

year. In light of this it was determined that by increasing their scores it would also

increase the students' ability to read vocabulary words and increase performance

in reading. In the data analysis, a *t* test was used to determine statistical and

educational significance.

Methodology

       This research project was a combination of Action Research and Quasi-

Experimental Research. The Action research was to do interventions with letter

naming which in return would increase performance in reading. It was also Quasi-

Experimental Research because the researcher couldn't control all of the variables

even though it was a real life experiment. A Descriptive Research was also used

in a survey that was given to the students participating at the end of the study.

<u>Participants</u>

The participants in this research study were the Kindergarten class in Mrs.

Fonseca's class. There are nineteen students in the class with ten girls and nine

boys. Three-fourths of the class was from a Spanish speaking family and the other

one-fourth was from an English speaking household. All of the students in this

study qualify for the free breakfast and lunch program provided by the school. The

Kindergarten class of 2009-2010 school year did not meet the goal standards of

the DIEBELS test. All of the students were given a survey at the end of May 2010,

after using the intervention for a semester.

<u>Instruments</u>

The DIBELS tests were the tools used to conclude the students' ability to

meet the goal targets. These tests were administered three times a year by our

reading coach, Amy Porter. The first test was in September which was a baseline

(pretest) for each student's letter naming. The second test was administered at the

end of January was the posttest for the first semester and the (pretest) for the next

semester. Finally the last test that was administered at the end of May was the (posttest) for the second semester. The tool used to determine the growth was a spreadsheet with each student's name. The students would practice saying the letter names in one minute and the researcher would record it on the spreadsheet. Excel was used to make the tables and graphs. Statpak was the statistical calculator used to determine the impact of the data results.

Design

As mentioned above this research project used a combination of different research methods, One of the methods was Action Research as this project was developed to solve the problem of students not reaching the 90% goal on letter naming and to improve their ability to read vocabulary words with confidence in the Bridgeport Elementary School. The other method was Quasi-Experimental Research as it was as close to an accurate experiment as possible, but all of the variables couldn't be controlled. Some of the variables that couldn't be controlled were: effects of testing, statistical failure, motivation novelty, variation and maturation. Due to the fact that all variables were not controlled there were limitations to the internal and external validity. The use of a survey of the study was to find out how the participants felt about the research it was done as a whole class and was a form of Descriptive Research.

<u>Procedure</u>

        At the beginning of the school year all of the kindergarten students in the study were given a DIBELS letter naming test. Developed by Deno (1970). The DIBELS Assessments were based on measurement procedures for Curriculum-Based Measurement (CBM), which were created by Deno and colleagues from the Institute for Research and Learning Disabilities at the University of Minnesota in the 1970s-80s. All of the students attended their reading class groups with no interventions for the first semester. The students were in whole group for the first forty-five minutes learning the letters and sounds of the alphabet. They were also learning the initial sounds of different words by practicing with the teacher. Every two weeks the teacher set a time to test each student using a book that contained the letters of the alphabet and the students had one minute to read as many letters as they could. If for some reason they didn't know the letter they are to skip it and keep going. Score for the test were marked on the DIBELS booklets and compared every two weeks to see if the student was advancing towards the target. The first letter naming test was the pretest and the second one was the posttest. The posttest was used as the pretest for the second semester. An intervention of thirty minutes was done in practicing the letter names five times a week. At the end of the second semester another DIBELS test on letter naming was done.

Treatment of Data

The difference was found between the pre and post tests each semester to evaluate any growth. The average of the test was compared between the two semesters to determine if there was growth in the second semester and to verify the use of the intervention. A *t* test, found in the Statpak, was used between the two semesters to conclude if there was any considerable growth during the second semester when the intervention was being done on lettering naming.

Summary

This chapter was designed to review the methodology and treatment of data related to the increase of the goal targets on letter naming throughout the intervention. The analysis of data and findings from this study were reported in Chapter 4.

CHAPTER 4

Analysis of the Data

Introduction

Chapter 4 has been organized around the following topics: (a) description

of environment, (b) hypothesis, (c) results of the study, (d) findings, (e)

discussion, and (f) summary.

Description of the Environment

The study was delimited to one kindergarten class in Bridgeport

Elementary School District, located in Bridgeport, Washington. There were

nineteen students in the whole class. This study was conducted during the 2009-

2010 school year. The enrollment at Bridgeport School District during the time of

the study was seven hundred and seventy five students. According to the Office of

Superintendent of Public Instruction (OSPI) the ethnic make-up of Bridgeport

Elementary School was as followed: American Indian/ Alaskan Native 0.8%,

Black 0.4%, Hispanic 87.4% and White 0.4%. The population of students who

qualify for free and reduced lunch was 87.5%. The on-time graduation rate was at

78.1% and the dropout rate was at 4.5%.

The assessment tool used to gather data was the DIBELS letter naming

assessments. The students were individually evaluated during the initial

assessment as well as the post intervention assessment which were tabulated and compared from the second semester and third semester to determine if growth took place on the third semester after the thirty minute intervention.

Hypothesis

The kindergarten students who receive thirty minutes daily of intervention on letter naming will score higher than their expected target on DIBELS, which is in letter naming eight letter names in the fall, twenty seven in the winter, and forty letter names in one minute in the spring. Students who participated in the thirty minute intervention will have a higher confidence level than the students who did not participate in intervention program.

Null Hypothesis

There will be no significant differences between students who participated in letter naming interventions as a supplement to the standard district curriculum. The confidence level of students participating in the intervention will be the same as the students who did not participate.

Results of the Study

The following graphs analyzed the results of the study. The results of the letter naming were looked as a whole group comparing the first semester with second semester. Then the DIBELS fluency test on letter naming was also

analyzed using the *t* test to determine if there was significant growth between both. A student survey for reading was given to establish how students felt about reading.

The following graph was used to see how many students looked forward to reading, if they thought reading was fun and if they thought reading was hard. As figure 1 showed seventeen of the students looked forward to reading and nineteen students said reading was fun while twelve students said reading was hard.
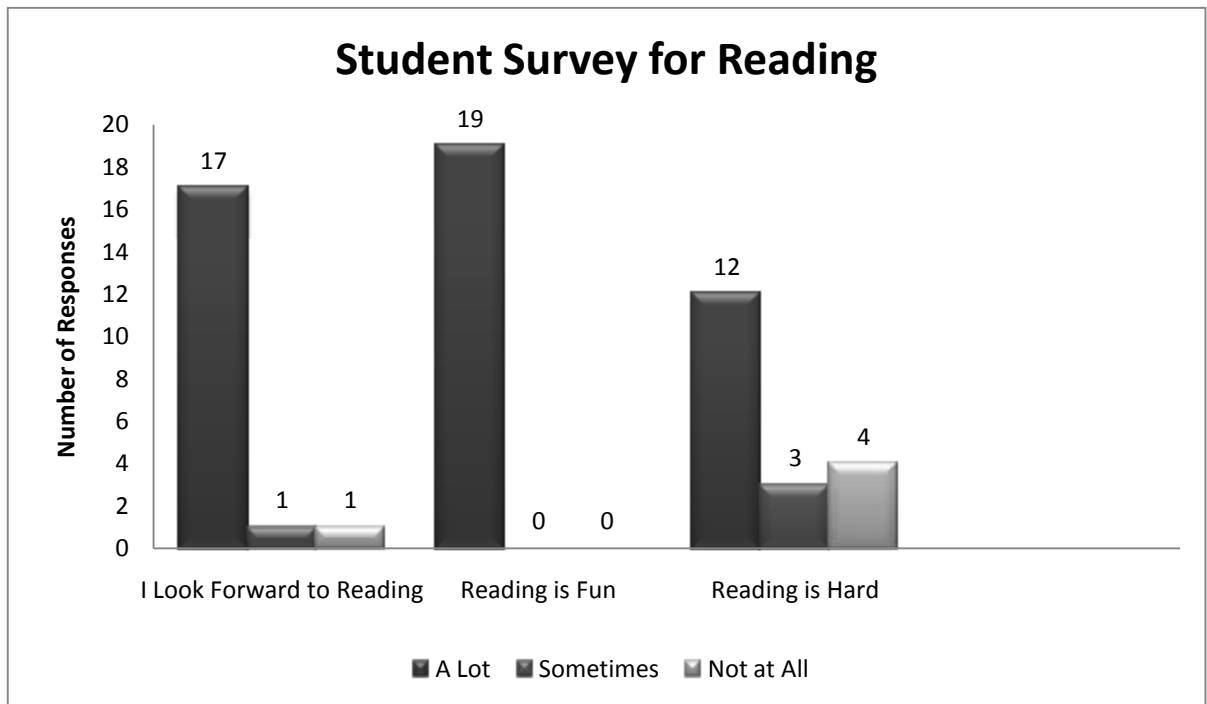
Student Survey for Reading

Figure 1

This graph was used to compare the means results of the students' scores on their DIBELS tests the first and second semester. The first semester the students had no interventions, while the intervention on letter naming was used on the second semester. The result was an increase of the means score in the letter naming test from the first semester of 31.6 and 63.26 on the second semester.

A non independent t test for samples was used to tabulate the results of the DIBELS letter naming scores to see if the growth was authentic or was what would be expected by chance. Both the pre test and post test scores for the second semester were entered into the Statpak statistical calculator. The results of the test found the non independent t value was 6.86 with a degree of freedom of 18. In order to considered significant or not by chance, a score of at least 2.101was needed. The researchers finding was 6.86 and therefore the null hypothesis could be rejected and the hypothesis was supported. With the t-score of 6.68, this study met the criteria needed to show a significant change with the probability of the results being by chance being less the 5%. The sum of the data was 602.00 the mean was 31.68, and the sum of data squared was 26368.00. However, the amount of growth between the first and second semesters, when looking at the mean difference score, was found to be a significant growth between both semesters.
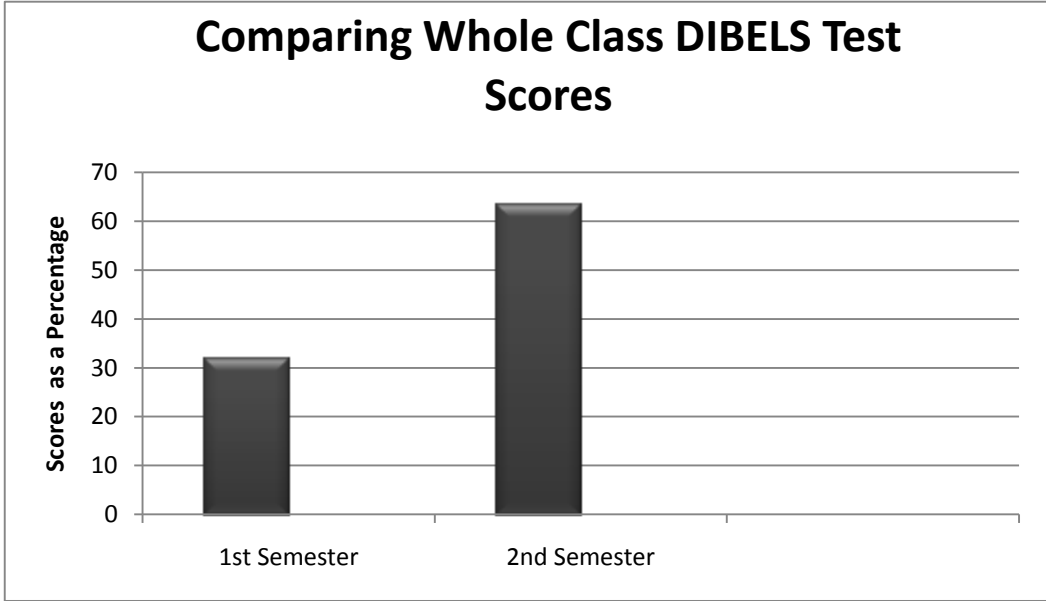
Comparing Whole Class DIBELS Test Scores

Figure 2

The DIBELS test was given at the beginning and end of each semester. In the study the benchmark goal for letter naming per minute for the fall was eight letters, twenty seven letters for the winter and forty letters for the spring. This graph was used to compare the girls and boys on the pre test on the DIBELS before the intervention of letter naming was applied to compare the difference on which of the two groups would increase in the letter naming words per minute. The girls had three hundred and thirty five letter names per minute, while the boys had two hundred and thirty five letter names per minute with the girls having a

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different of seventy more letter names than the boys. The girls were far more

ahead than the boys on the pre test.

The results of the test found the non independent *t* value was 3.22 with a degree

of freedom of 8. In order to considered significant or not by chance, a score of at

least 2.262 was needed. The researchers finding was 3.22 and therefore the null

hypothesis could be rejected and the hypothesis was supported. With the t-score of

3.22, this study met the criteria needed to show a significant change with the

probability of the results being by chance being less the 5%. The sum of the data

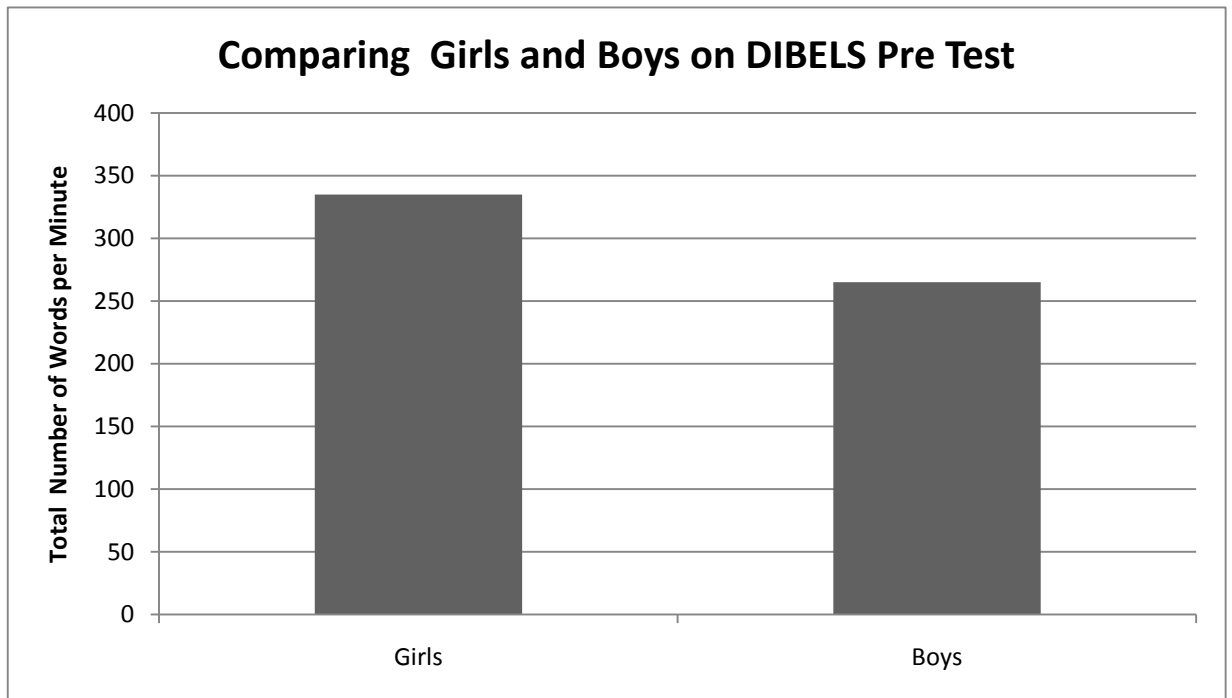was 192.00, the mean was 21.56, and the sum of data squared was 7400.00.

Figure 3

The next graph was used to compare the girls and boys on the post test on the DIBELS after the intervention of letter naming was applied to compare the difference on which of the two groups would increase in the letter naming words per minute. The girls had seven hundred and sixteen letter names per minute, while the boys had four hundred and eighty six letter names per minute with the girls having a different of two hundred and thirty more letter names then the boys. The girls were far more ahead than the boys on the post test.

The results of the test found the non independent *t* value was 5.92 with a degree of freedom of 9. In order to considered significant or not by chance, a score of at least 2.228 was needed. The researchers finding was 5.92 and therefore the null hypothesis could be rejected and the hypothesis was supported. With the t-score of 5.92, this study met the criteria needed to show a significant change with the probability of the results being by chance being less the 5%. The sum of the data was 381.00, the mean was 38.10, and the sum of data squared was 18239.00.

Comparing the two graphs of girls and boys on the pre test and post test the girls had a 3.692 growth in letter naming words per minute gain. The boys had 0.958 words per minute growth in letter naming gain. The results are that both girls and boys both had an increase in letter naming after the intervention with the girls being ahead of the boys in both pre and post test.
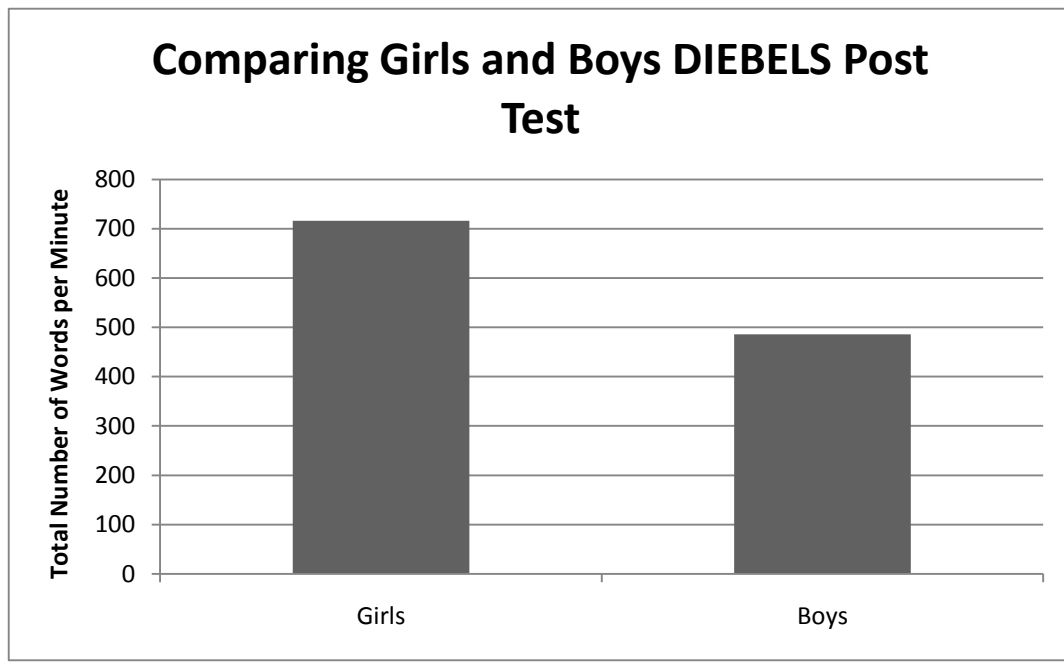
Comparing Girls and Boys DIEBELS Post Test

Figure 4

The next graph was used to show the growth that each student had before the intervention which was series 1 and after the intervention that was on series 2. It showed that by using the thirty minutes intervention of practicing the letter names five times a week it had made a difference in bring up the scores of the pre and post test in the DIBELS. Some of the students show a significant growth in the post test.
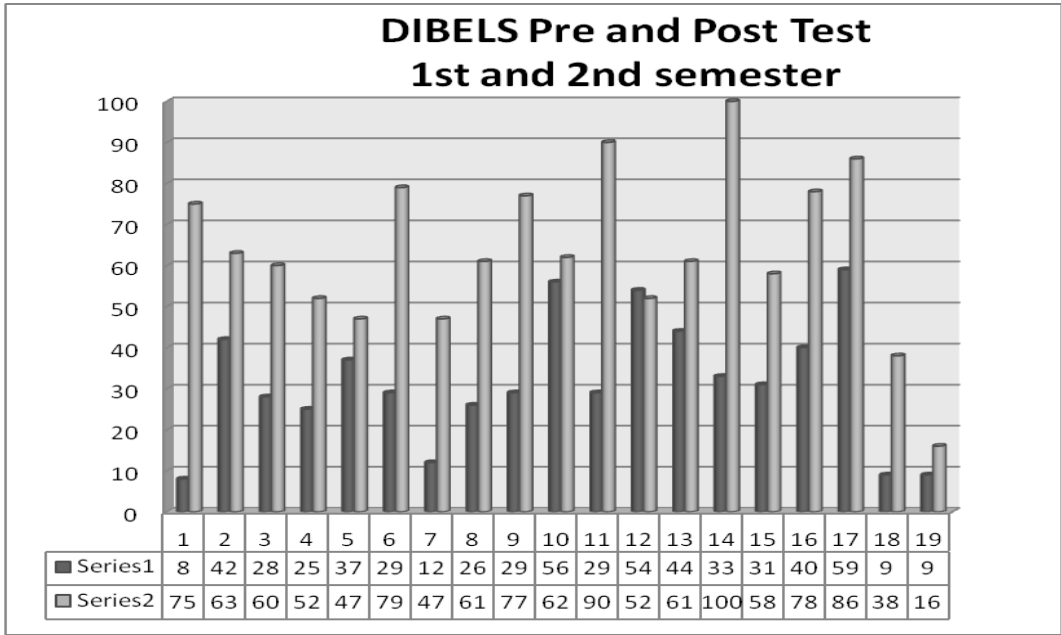
DIBELS Pre and Post Test 1st and 2nd semester

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
■ Series1	8	42	28	25	37	29	12	26	29	56	29	54	44	33	31	40	59	9	9
▨ Series2	75	63	60	52	47	79	47	61	77	62	90	52	61	100	58	78	86	38	16

Figure 5

Findings

An analysis of the above data led this researcher to conclude that the

hypothesis, students who receive thirty minutes of intervention on letter naming

will score higher than their expected target on DIBELS then students' first

semester DIBELS letter naming scores who did not receive letter naming

intervention, was supported, as validated by the *t*-test score. There was an increase

in the mean difference of the letter naming DIBELS score in the second semester

when compared to the first semester, the growth was found to be significant which

caused the hypothesis to be supported. Also, the hypothesis, students who receive

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thirty minutes of intervention during the week will have a higher confidence level that is supported by the DIBELS test scores on student survey.

The null hypothesis, there will be no significant differences between students who participated in the letter naming intervention as a supplement to the standard district curriculum was rejected. The confidence level of students participating in the intervention will be the same as the students who did not participate was also rejected.

<u>Discussion</u>

This study, which was conducted during the 2009-2010 school year, involved nineteen students, ten girls and nine boys, from Bridgeport Elementary School located in Bridgeport, Washington. The class was a mixture of Anglo and Hispanic students, with most of the Hispanic students speaking Spanish at home and learning English because they lived in and went to school in America. All students received free breakfast and lunch because of the high poverty rate in the school district.

The focus of this study was to determine if the use of intervention of thirty minutes of letter naming would increase the classes' DIBELS test score and increase the students' confidence level. The students' were pre and post tested each semester on the DIBELS test. On the first semester there was no intervention

of letter naming applied, while on the second semester the intervention of letter naming was applied.

The results of the study found that there was a significant increase the second semester in the students' scores of letter naming as tested by the DIBELS. The mean score of correct letters per minute for the first semester was 31.68, while the second semesters mean score was 63.26. When entered into a non independent t test for significance, the t- value was 6.86. This meant that the growth was genuine with over 95% probability that the growth was not by chance. This seemed to correspond with published research such as was stated in Literacy Research and Instruction, 2009.

Summary

This chapter was designed to analyze the data and identify the findings. Results from the data, led this researcher to accept the hypothesis that students who receive thirty minutes of intervention on letter naming will score significantly higher on the second semester post DIBELS letter naming test the students' first semester DIBELS letter naming test scores who did not receive letter naming intervention instruction. The hypothesis students who receive letter naming instruction intervention will score significantly higher on the second semester of letter naming DIBELS test score than those who did not receive letter naming

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intervention was supported. There was a significantly increase in the mean

difference of the letter naming DIBELS test score, the growth was found to be

significant, which caused the hypothesis to be accepted.

The null hypothesis, students who receive letter naming intervention as a

supplement to the standard district curriculum would have the same confidence

level of students who did not participating in the intervention was rejected. The

hypothesis , students who receive letter naming intervention will not score

significantly higher on the second semester letter naming DIBELS test score was

not also rejected. Chapter 5 summarizes the study, draws conclusions, and makes

recommendations.

CHAPTER 5

Summary, Conclusions and Recommendations

Introduction

This chapter has been organized around the following topic: (a) introduction, (b) summary, (c) conclusions, (d) recommendations. The purpose of this study was to determine if practicing the letter naming intervention for thirty minutes daily increased students' achievement on the DIBELS scores. It was also to determine if the students' confidences levels would be higher after the intervention.

Summary

The study was delimited to one kindergarten class in Bridgeport Elementary School District, located in Bridgeport, Washington. There were nineteen students in the whole class. This study was conducted during the 2009-2010 school year. Not having met AYP for the last three years in a row and being placed on step 2 it was determine that an intervention needed to be put in place to bring up DIBELS scores.

Several research articles were reviewed by the researcher to gather information about GLE's /NCLB / WASI/ DIBELS test, and the intervention on letter naming. The research was used to facilitate the researcher in understanding

the importance of letter naming and how it played a role in students' ability to read. The above information was collected and tabulated using graphs and a *t* test.

Conclusions

Letter naming was an important element in the reading process. The practice of letter naming though the use of the intervention resulted in a significant increase in the students' DIBELS test scores. This was determined by inputting the pre and post semester DIBELS scores into a *t* test, with the resulting score of 6.86. This meant that there was less than 5% chance that the growth was by chance. The mean of the data was 31.68; and the sum of data squared was 26368.00.

When measuring the amount of growth the first semester as compared to the second semester, using the DIBELS pre and post test scores, the results show a positive growth. This was determined by inputting the difference between pre and post scores the second semester. The results was an increase of the means score in the letter naming test from the first semester 31.6 and 63.26 on the second semester with a difference of 31.661578 of growth in the second semester. Therefore the letter naming intervention of thirty minutes a day for five days a week made a big difference in scoring higher than their expected target on the DIBELS letter naming test.

When taking into account all the results of the study, the researcher accepted the hypothesis, students who receive letter naming intervention for thirty minutes five times a week will score higher than their expected target on the DIBELS tests. The null hypothesis, there will be no significant between students who participated in the letter naming intervention as a supplement to the standard district curriculum was rejected. The confidence level of students participating in the intervention will be the same as the students who did not participate was also rejected. Due to the intervention, that was supported, as validated by the *t*-test score the researcher will recommend that Bridgeport Elementary School will consider using the letter naming intervention each school year right after the first DIBELS testing is given to all of the students, this will give the students a longer period of intervention. The researcher finding were concluded that this intervention made a big difference in bring up the test scores on the letter naming DIBELS testing.

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APPENDICES

LIST OF FIGURES

APPENDIX A

PERMISSION TO CONDUCT RESEARCH/ USE STUDENT' TEST DATA

I, Michael Porter, hereby irrevocably consent and authorize Norma Fonseca to conduct research at Bridgeport Elementary. Additionally, any data gathered through such research project can be used by Norma Fonseca.

_____, Author

_____, Date

APPENDIX B

PERMISSION TO CONDUCT INTERVENTION/ USE STUDENT' TEST DATA

I, Amy Porter, hereby irrevocably consent and authorize Norma Fonseca to conduct intervention at Bridgeport Elementary. Additionally, any data gathered through such research project can be used by Norma Fonseca.

_____, Author

_____, Date