

Increasing the Percentage of Benchmark
Students on the Letter Naming Fluency Test

A Special Project

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FACULTY APPROVAL

Increasing the Percentage of Benchmark
Students on the Letter Naming Fluency Test

Approved for the Faculty

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ABSTRACT

The purpose of the experimental study was to determine the extent to which intentional practice of Letter Naming Fluency (LNF) during whole group reading time would help increase scores from September to May of students from 2009-2010 compared to the students from 2008-2009. To accomplish this purpose, a review of selected literature was conducted. Additionally, a t-test analysis for independent samples was undertaken to obtain a baseline data from which related conclusions and recommendations were formulated. A t-test analysis indicated that intentional practice of LNF had no significant difference on the DIBELS scores from one year to the next. Accordingly, the hypothesis was not supported at all levels of probability.

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CHAPTER 1

Introduction

Background for the Project

The researcher recognized that throughout elementary education in the United States reading has taken the number one focus. Both nationwide and in the Yakima School District, kindergarteners have struggled at achieving mastery of basic early literacy skills. The United States department of Education developed a program, called Reading First which stated that individual districts and schools could apply for to help alleviate the struggling students' problems with learning how to read. The focal point of Reading First was to help schools establish a research-based reading program for students in kindergarten through third grade. The tool used by the Reading First program to measure the success of students, schools, districts, and states was the Dynamic Indicators of Basic Early Literacy Skills (DIBELS).

In the Yakima School District in Washington State several of the elementary schools, including McClure Elementary School (MES), were part of the Reading First program. In 2007, MES lost the Reading First funding. Although MES was no longer under the Reading First Grant, the school continued to use the DIBELS test to measure students' reading skills progress. Kindergarteners were tested in four areas of focus. The

DIBELS test measured Initial Sound Fluency (ISF), Letter Naming Fluency (LNF), Phoneme Segmentation Fluency (PSF), and Nonsense Word Fluency (NWF), each in a one minute timing. For the purpose of this study the researcher focused on LNF and PSF. The LNF test had a single page of letters that the student had one minute to tell the names of the letters. In the PSF test, the students were told a word and the students responded by saying the sounds that they heard in the word.

Whether kindergarten students were exposed to letters and sounds before entering kindergarten, students' tendencies were to struggle with this assessment. Sometimes an unknown font or unfamiliarity with the testing process hindered student achievement on the DIBELS tests.

To overcome the obstacles students faced in achieving a mastery or benchmark score, the researcher created and implemented a regular intervention of letter naming and phoneme segmentation using current technologies available in the classroom. With these added interventions, great improvement in LNF and PSF was attainable.

Statement of the Problem

The study sought to determine whether or not regular intervention would improve student scores on the LNF of the DIBELS testing. The researcher found that students entering kindergarten had a difficult time

passing the DIBELS. Most students had not been exposed to tests such as the DIBELS and had a hard time knowing what was expected of them.

Phrased as a question, the problem which represented the focus of the study may be studied as follows: Was the regular intervention created and implemented by the researcher, e.g., regular intervention of letter naming using current technologies in the classroom and creating different games to have increased practice of letter naming successful in raising students' scores on the LNF sections of the DIBELS assessment?

Purpose of the Project

The purpose of the experimental study was to compare the use of additional intentional teaching during the whole group reading block to the previous year without additional intentional teaching in the whole group setting. The researcher looked into scores from two different years of students at McClure Elementary and discovered that there was growth in the students' test scores from September to May, but not a significant amount of students reached benchmark or attained a passing score.

To accomplish this purpose, research articles were read, websites were reviewed, data was selected and analyzed, a baseline was created by using a *t*-test, and conclusions and recommendations were formulated.

Delimitations

The participants in the study were students from McClure Elementary in Yakima. The students' information was gathered for the school years of 2008-2009 and 2009-2010. The students were both female and male of ages five to seven years old. The population of the school consisted of 80 percent of free or reduced lunch. The data collected was attained from the Instructional Facilitator (IF) at the school. The testing was done in September of 2008, May of 2009, September of 2009, and again in May of 2010. The students were pulled in groups of five or more at a time and escorted to the multi-use room. The students were tested individually in four areas for a minute on each test and then returned to their classrooms. The time that the students were pulled from the classroom was dependent upon when the testers were available. The time ranged from nine in the morning throughout the day until two in the afternoon. The test that was administered was a standard test that was used throughout the state. The test consisted of one book per student and the same booklet was used for the whole year. As the testers completed the testing, they imputed the results into a computer by classroom. The computer program that was used sorted the students by scores and classroom. Each grade level received a copy of the results along with the administrators and reading coaches. The DIBELS test was administered

by a group of trained people that went into every school. The students didn't know these people and in the past, several students were known not to speak to the testers. Due to budget cuts, schools had to form their own group of testers. The group consisted of paraprofessionals, reading teachers and the instructional facilitator. The students had seen these people before, but still struggled with the layout of the test.

Assumptions

MES has been a school with one strand of Dual-Language (DL) and one strand Content ESL (English as a Second Language). This meant that two classrooms were dual-language and two classrooms were English only classes. The students included in the content ESL classrooms had a tendency to be students that didn't have prior school experience. The families enrolled their students later than the other two DL classes. Many of these students had no prior experience to tests like the DIBELS.

Hypothesis

The intentional practice of specific early literacy skills helped students achieve a higher percentage of growth as assessed by the DIBELS than the previous year's students. The 2009-2010 students' percentage of growth was higher overall when compared to the 2008-2009 school year.

Null Hypothesis

There was no significant difference in students' percentage of growth as assessed by the DIBELS scores with the addition of intentional practice of specific early literacy skills in the 2009-2010 students as compared to the 2008-2009 students. The 2009-2010 students' growth showed the same percentages or decreased percentages of growth.

Significance of the Project

The researcher added extra intentional practice in addition to the Read Well program that focused on one section of the DIBELS test. The results of the researcher's findings were shared with the administration and also with other schools in the district to further increase all scores throughout the district. The researcher continued to study other interventions and compiled a file for continued use at a later time.

Procedure

The researcher began the project by contacting the administrator of MES to check for the appropriateness of the project. After conformation that it was appropriate, the researcher contacted the reading interventionist to collect the data from the previous school year, 2008-2009. The researcher conducted a t-test to attain a standard score for all students that were to be included in the study for the fall 2008 DIBELS and the spring 2009 DIBELS. Continuous Progress Monitoring occurred

regularly to chart the growth of the students. More data was collected and analyzed for the 2009-2010 school year for fall and spring DIBELS tests. The two school years were compared and contrasted. With the standard scores, the researcher checked for significance in the growth of the students' DIBELS scores for both years for 95%, 99% and 99.9%. The researcher used the degrees of freedom and created a stair-step formula to analyze the data. A summary was created by the researcher at the completion of the project.

Definition of Terms

Significant terms used in the context of the present study have been defined as follows:

benchmark. Benchmark was the term used to define a student that reached the level needed to pass the DIBELS test in any certain area.

Content ESL program. A program where students are taught in English with ESL strategies implemented during instruction which support other language learning.

Dual Language Acquisition Program. A two-way bilingual program, DLAP has been utilized to integrate language minority and language majority students, and to provide instruction in the minority language, Spanish along with English.

experimental research. Research in which at least one independent variable is manipulated, other variants are controlled, and the effect on one or more dependant variables is observed.

intensive. The level name for a student that is at the lowest level on the DIBELS test.

phonemic awareness. The ability to hear and manipulate the sounds in spoken words, and the understanding that spoken words and syllables are made up of sequences of speech sounds.

Reading First grant. A federal initiative to strengthen the instruction of reading to primary grade students.

strategic. The level name of a student that is just below reaching the “benchmark” level.

t- test for independent samples. A parametric test of significance used to determine whether there is a significant difference between the means of two independent samples at a selected probability level.

Acronyms

DIBELS. Dynamic Indicators of Basic Early Literacy Skills.

DL. Dual-Language.

ESL. English as a Second Language

IF. Instructional Facilitator

ISF. Initial Sounds Fluency.

LNF. Letter Naming Fluency.

MES. McClure Elementary School.

NWF. Nonsense Word Fluency.

OSPI. Office of Superintendent of Public Instruction.

PSF. Phoneme Segmentation Fluency.

CHAPTER 2

Review of Selected Literature

Introduction

Standardized testing became more and more prevalent when No Child Left Behind laws went into effect. This brought many more issues to address and deal with in the classroom. Among them, were the issues of how to alleviate test anxiety, which tests were most accurate and applicable, and which tests best addressed early literacy skills.

The National Reading Panel researchers developed five major areas of early literacy, that when put together, encompass all identified early literacy skills that students needed to be successful readers. Early literacy skills were identified to be foundation upon which students build their educational careers.

Once the five areas were defined, University of Oregon developed a set of tests to monitor the growth of students throughout the elementary grades. The test was called Dynamic Indicators of Basic Early Literacy Skills (DIBELS). The DIBELS test was comprised of multiple measurements ranging from Initial Sound Fluency to Word Use Fluency to Oral Reading Fluency. Each measurement was made to directly correlate to one of the five areas of early literacy.

With added pressures of a standardized test, students had shown signs of test anxiety. Teachers were presented with the new problem of how to lessen the impact of test anxiety on students' results.

The literature review conducted in chapter two was mainly focused on the following issues:

1. The Five Big Ideas of Early Literacy.
2. DIBELS and Progress Monitoring.
3. Testing Anxiety.
4. Summary.

All three areas were summarized and related to the study at the end of the reviews.

Data current primarily within the last five years and some within the last ten years were identified through an online computerized literature search of the Educational Research Informational Center (ERIC), the internet, and Pro Quest. A hand-search of selected research materials was also conducted.

Five Big Ideas of Early Literacy

The University of Oregon (U. of O.) had completed a lot of research on how students learn to read and have developed many different ideas and strategies. One of the University of Oregon's ideas stated "the Big Ideas in Beginning Reading focuses on the five Big Ideas of early literacy:

phonemic awareness, alphabetic principle, accuracy and fluency with text, vocabulary, and comprehension” (U. of O. 2009). After following the lead from the National Reading Panel, the University of Oregon made this their main focus. At the beginning of every student’s educational career, they had to build off of the five fundamental components of early literacy. Phonemic awareness had also included “awareness of individual words in sentences, syllables, and onset-rime segments, as well as awareness of and ability to manipulate (delete, add to, or change sequence of) individual phonemes (phonemic awareness),” according to the Office of Superintendent of Public Instruction (OSPI 2010). Phonemic awareness has been the main focus of most kindergarten classrooms in Washington State. The knowledge of letters, the sounds that they make and how they are combined to make words has been paramount in the focus of any kindergarten literacy curriculum. Without this fundamental base, students were not able to build on the next blocks of accuracy, fluency, and comprehension, which led to students who were not successful readers (U. of O. 2009).

The Reading First grant had certain curriculums that covered the areas of the basic ideas of beginning reading. Read Well was the curriculum chosen by the author’s school to use to envelop the five areas of beginning literacy. The Read Well program “addressed the major

research-based components of reading” (Cambium Learning, 2010). The Cambium Learning Corporation and Shirley Dickson, Ph. D. stated, “When students have struggled with reading skills beyond second grade, they tend a lag behind throughout their school careers” (Cambium Learning, Inc. and Dickson 2007). The Read Well program has been found to help ensure that all students have the basic skills to be successful students throughout their school career.

Teachers had to have a core curriculum that helped focus instruction on the five areas of reading to help ensure their students’ success. According to RMC Research Corporation teachers needed quality curriculum that helped provide, “quality, standards-aligned instructional materials are one indispensable tool teachers truly need in order to teach a systematic, explicit beginning reading program” (RMC Research Corporation 2010). A high quality curriculum helped lead to higher scores and successful readers. RMC Research also stated, “If students are fluent readers by the end of first grade, research validates that they will have the necessary prerequisite skills to focus on reading to learn in subsequent grade levels and throughout life” (RMC Research Corporation, 2010). With curriculum that focused on the five big ideas of reading, students have steadily improved their reading skills.

States had the choice of how to measure the students' growth in the area of reading. One measurement that had been chosen by Washington State was the Dynamic Indicators of Basic Early Literacy Skills (DIBELS). Along with the DIBELS, teachers have been asked to also administer one-minute timed tests to help gauge the students' growth between testing times. These tests have shown whether or not the curriculum had covered the areas of early literacy and whether the students have made significant growth in the tested areas.

DIBELS and Progress Monitoring

Across the country, the DIBELS test has been adopted by many states to measure student learning. Washington State chose the DIBELS for a standardized test: "The DIBELS, created by researchers at the University of Oregon, measures 'the development of pre-reading and early reading skills' and is required of Reading First students" (OSPI 2008). Students had been given the diagnostic measurement that helped determine whether a student will be at risk of having reading difficulties (Tolman 2010). The students were tested in September, 2009, January, 2010, and again in May, 2010. The DIBELS test has focused on four areas Initial Sound Fluency (ISF), Letter Naming Fluency (LNF), Phoneme Segmentation Fluency (PSF), and Nonsense Word Fluency (NWF). Letter Naming was not included in a direct correlation with the five big ideas of

reading, but according to the University of Oregon, “because the measure is highly predictive of later reading success, it is included as an indicator for students who may require additional instructional support on the Basic Early Literacy Skills” (U. of O. 2009).

Even though multiple schools around the state had lost the Reading First grant after three years, like McClure Elementary, some districts decided to continue the use of the Read Well curriculum and the DIBELS test because of the results of the effectiveness show in past research of the DIBELS. In Mississippi, a study showed that “students testing into the low-risk category in phonological awareness as measured by the DIBELS Phoneme Segmentation Fluency (PSF) increased from 47% to 94% from mid-year to end of year” (Sopris West 2010).

Along with the DIBELS test, Progress Monitoring was part of the ongoing assessment to gauge students’ mastery of certain early literacy skills. The Progress Monitoring tests had included similar wording and parameters that resemble the DIBELS test. Progress Monitoring was used to measure the students’ growth throughout the year. According to the University of Oregon, “Once students begin receiving additional instructional support, we recommend performance be monitored related to the instructional objectives of the intervention” (U. of O. 2009). Each student was to be given one-minute timed tests for ISF, LNF, PSF, and

NWF. Students that fell into the “intensive” category were to be Progress Monitored one time a week. Students that scored in the “strategic” category were to be tested two times a month. While the “benchmark” students were only tested once a month to make sure they maintained and/or continued growth. Progress Monitoring was to be done by the reading teachers so they could adjust their teaching.

The use of the DIBELS and Progress Monitoring was a key factor in steadily increasing scores for schools that have continued to use the Reading First model. Many schools have continued with Read Well, Progress Monitoring, and the DIBELS test. Progress Monitoring had been the focus of the past year to help gauge student progress. The Progress Monitoring had helped to ensure fidelity to the reading program and continued growth of students’ scores.

Test Anxiety

Test anxiety was very evident when it came to standardized testing not only in high school students but also in the elementary grades. Some students have shown different signs of anxiety such as, “an upset stomach, headache, loss of focus, fear, irritability, anger, and even depression” (American School Counselor Association 2010). Some students struggled with controlling their emotions and fears during the DIBELS testing. Students who couldn’t control their anxiety carried their

struggles to the classroom. Casbarro and Salovey (2005) stated, “. . . many children, if they cannot cope with the stress of testing and other school activities, will under perform their academic potential. And the consequences of such underperformance can ramify throughout their lives” (Casbarro and Salovey 2005). The staffs of schools had to focus on how the students reacted during reading tests and individual tests. The center of all teachers’ actions had to make sure that students felt safe in their environment.

All students have had more added stress to their lives outside of the classroom than twenty years ago. School was supposed to be a safe haven from whatever else was going on in their lives. With higher standards being the focus of our nation, more added stress came as well. Strumpf and Fodor stated: “With a move to higher standards came a very negative and unintended outcome – anxiety. With higher and more rigorous standards came more accountability. With greater accountability came more tests. With more tests came more anxiety” (Stumpf and Fodor 2005). Society had called for more accountability and more tests and with that came added stress on students.

Kindergarten students tended to be comfortable in their environment, but with the new standards and standardized testing, students’ stress levels have risen. Strumpf and Fodor stated “Although

test anxiety has been extensively studied for decades, little research has focused on intervention programs for younger school children” (Strumpf and Fodor 1993). With standardized tests having become the norms for student academic measurement, states have had to look into intervention programs that could have helped students cope with their anxiety.

Suggestions have been made to help reduce the stress of students. The NYU Child Study Center made suggestions for parents to encourage their children to be less anxious for test time. Some of the suggestions made were: reinforce their efforts, show enthusiasm, praise, help find more optimistic thoughts, teach relaxation techniques such as deep breathing (NYU Child Study Center 2010). There have been suggestions for educators, also. Some of the suggestions made by Henry Harris and Doris Coy were: teach students successful test taking strategies, practice the format of the test, and explore students concerns (Harris & Coy 2003). With additional strategies and encouragement, students’ achievement on standardized tests continued to increase.

Summary

The review of selected literature and related investigation reported in Chapter Two supported the following research themes:

1. Authorities advocated for higher standards in reading and based the Reading First grant on the five big ideas of early literacy.

2. With the basis of the five big ideas of early literacy, the DIBELS test and Progress Monitoring was developed to gauge student academic success in reading.

3. With “high-stakes” testing, such as the DIBELS came more test anxiety on the students. Test anxiety has continued to affect the results on some student scores.

CHAPTER 3

Methodology and Treatment of Data

Introduction

The purpose of the experimental research project was to determine to what extent intentional DIBELS practice had on the DIBELS scores of students from two different years. To accomplish this purpose, a review of selected literature was conducted. Additionally, a *t*-test for independent samples was undertaken to obtain baseline data from which related conclusions or recommendations were formulated.

Chapter 3 contains a description of the methodology used in the study. Additionally, researcher included details concerning participants, instruments, design, procedure, treatment of the data, and summary.

Methodology

An experimental methodology was used to determine the extent to which Kindergarten students with intentional DIBELS practice scored greater than students without intentional practice during whole group reading instruction. A *t*-test for independent samples was utilized for data analysis to determine significance between the control and experimental groups. Both groups were administered the same test and each group received a different treatment. Both groups were tested in the fall, winter,

and spring using the DIBELS test. The research was conducted during the 2008-2009 and 2009-2010 school years using the students that were enrolled in Kindergarten Content ESL classrooms.

Participants

The study focused on Kindergarten students enrolled in the Content ESL program at MES for the 2008-2009 and 2009-2010 school years. Participants were organized into control and experimental groups as followed:

Experimental Group X: 2009-2010 students who received intentional DIBELS practice during whole group reading.

Control Group Y: 2008-2009 students who did not receive intentional DIBELS instruction during whole group reading.

Instruments

The primary instrument used in the study was the Dynamic Indicators of Basic Early Literacy Skills (DIBELS). A standardized test, the DIBELS, measured four areas of literacy for Kindergarten students. The author focused on Letter Naming Fluency (LNF) scores on the DIBELS test for fall and spring of 2008-2009, fall and spring of 2009-2010.

Design

The experimental design utilized a t-test for independent samples to determine whether the means of the two groups were significantly different. To determine this, the author compared the LNF test of the DIBELS test at two different points of the year. The control group was pre-tested in the fall of 2008 and post-tested in the spring of 2009. The experimental group was pre-tested fall 2009 and post-tested in the spring of 2010.

Procedure

The procedures employed in the present study evolved in several stages as followed:

1. During September 2009, permission was sought and obtained from Del Carmichael, principal of McClure Elementary School, for the experimental study.

2. January 2010, DIBELS scores were obtained from the Instructional Facilitator (IF), Jacqueline Mayes, for the content ESL classrooms for September 2008, May 2009, and September 2009.

3. From January to May 2010, the researcher continued to Progress Monitor students on the DIBELS LNF section along with paraprofessional small group interventions.

4. May 2010, DIBELS scores were obtained for the 2010 content ESL classrooms for spring data from the MES IF.

5. Throughout 2009-2010 school year, the researcher conducted a review of selected literature focused on the development of early literacy skills, DIBELS and Progress Monitoring, and test anxiety. The literature was attained through a search using Education Resources Informational Center (ERIC), the Internet, and Pro Quest.

6. During the spring semester of 2010 data analysis was completed and study outcomes were determined for significance.

Treatment of Data

A *t*-test for independent samples, used in conjunction with the Windows STATPAK statistical software program that accompanied the Educational Research: Competencies for Analysis and Applications Test (Gay, Mills & Airasian, 2006), enabled the researcher to compare the growth of the LNF test based on the DIBELS scores. Two *t*-tests were performed. The first test compared the significance of the control group

(2008-2009 students) fall and spring DIBELS scores. The second test compared the significance of the fall and spring scores of the experimental group (2009-2010 students). Significance was determined for $p \geq$ at 0.05, 0.01 and 0.001 levels. The following t -test formula for independent samples was utilized:

$$t = \frac{\bar{X}_1 - \bar{X}_2}{\sqrt{\left(\frac{SS_1 + SS_2}{n_1 + n_2 - 2}\right)\left(\frac{1}{n_1} + \frac{1}{n_2}\right)}}$$

Summary

Chapter 3 provided a description of the research methodology employed in the study, the participants, the instruments used, the research design, and the procedures utilized. The researcher used an experimental study to compare the effects of intentional practice of the LNF test of the DIBELS test to the previous year's students who didn't receive as much practice. The students ranged from five year olds to seven year olds both boys and girls from MES in the Yakima School District. The results of the study were obtained from the DIBELS test for LNF from September 2008 and 2009 and May 2009 and 2010. Due to

mobility of students, the sample sizes had decreased from the beginning of the study. Details concerning treatment of the data obtained and analyzed were also presented.

CHAPTER 4

Analysis of the Data

Introduction

The study sought to determine to what extent did intentional whole group instruction of the DIBELS test improve the scores of the students for the 2009-2010 school year. Chapter 4 was organized to include the following: description of the environment, hypothesis, null hypothesis, results of the study, findings, the discussion, and a summary.

Description of the Environment

The participants in the study were Kindergarten students from McClure Elementary School in Yakima ranging from five to seven years old. The students' information was gathered for the school years of 2008-2009 and 2009-2010 by means of the DIBELS test. The data collected was attained from the IF at the school. The testing was done in fall and spring of the 2008-2009 and 2009-2010 school years. The students were pulled in groups of five or more at a time and tested individually in four areas for one minute on each test and then returned to their classrooms. The time that the test was administered ranged from nine in the morning throughout the day until two in the afternoon. The test consisted of one book per student and the same booklet was used for the whole year. As

the testers completed the testing, they imputed the results into a computer by classroom. The computer program that was used sorted the students by scores and classroom. The DIBELS test was administered by a group of trained people that went into every school. The students didn't know these people and in the past, several students were known not to speak to the testers. Due to budget cuts, schools had to form their own group of testers. The group consisted of paraprofessionals, reading teachers and the IF.

Hypothesis

The intentional practice of specific early literacy skills helped students achieve a higher percentage of growth as assessed by the DIBELS than the previous year's students. The 2009-2010 students' percentage of growth was higher overall when compared to the 2008-2009 school year.

Null Hypothesis

There was no significant difference in students' percentage of growth as assessed by the DIBELS scores with the addition of intentional practice of specific early literacy skills in the 2009-2010 students as compared to the 2008-2009 students. The 2009-2010 students' growth showed the same percentages or decreased percentages of growth.

Results of the Study

Two t-tests were performed on the two groups used in the study. One t-test compared the September scores for 2008 and 2009. The other t-test compared the May scores for 2009 and 2010. Table 1 showed the scores used in the t-test for both groups. The pre-test was administered in September of 2008 and 2009. The post-test was administered in May 2009 and 2010. A complete table of the students' scores was illustrated in Appendix A.

Table 1

DIBELS Scores for Groups X (2009-2010) and Y (2008-2009)

| | Group X | | | | Group Y | |
|-----|---------|--------|------|----|---------|---|
| | Fall | Spring | Fall | | Spring | |
| S1 | 0 | 59 | T1 | 0 | 13 | |
| S2 | 19 | 30 | T2 | 0 | 6 | |
| S3 | 5 | 35 | T3 | 0 | 32 | |
| . | . | . | . | . | . | . |
| . | . | . | . | . | . | . |
| . | . | . | . | . | . | . |
| S43 | 22 | 53 | T37 | 25 | 72 | |
| S44 | 46 | 76 | T38 | 9 | 36 | |
| S45 | 4 | 56 | T39 | 3 | 74 | |

Note. Students' scores for DIBELS test in September and May for 2008-2009 and 2009-2010 school years.

Table 2 disclosed the results of the *t*-test for Group X and Group Y for the September DIBELS scores. The test showed that the difference in the groups wasn't significant.

Table 2

T-test for Independent Samples, September 2008 and 2009

| Statistic | Value |
|----------------------------------|----------|
| No. of Scores in Group X | 45 |
| Sum of Scores in Group X | 465.0000 |
| Mean of Group X | 10.33 |
| Sum of Squared Scores in Group X | 9411.00 |
| SS of Group X | 4606.00 |
| Number of Scores in Group Y | 39 |
| Sum of Scores in Group Y | 316.0000 |
| Mean of Group Y | 8.10 |
| Sum of Squared Scores in Group Y | 6736.00 |
| SS of Group Y | 4175.59 |
| t-Value | 0.99 |
| Degrees of Freedom | 82 |

Note. The t-Value showed that there wasn't a significant difference between the groups.

Table 3 disclosed the results of the *t*-test for Groups X and Y for the DIBELS test for LNF in May of 2009 and 2010. Table 4 represented the distribution of *t* with 82 degrees of freedom. Significance wasn't determined for $p \geq$ at 0.05, 0.01 and 0.001 levels.

Table 3

T-test for Independent Samples for May 2009 and 2010

| Statistic | Value |
|----------------------------------|-----------|
| No. of Scores in Group X | 45 |
| Sum of Scores in Group X | 2271.00 |
| Mean of Group X | 50.47 |
| Sum of Squared Scores in Group X | 129887.00 |
| SS of Group X | 15277.20 |
| Number of Scores in Group Y | 39 |
| Sum of Scores in Group Y | 1848.00 |
| Mean of Group Y | 47.38 |
| Sum of Squared Scores in Group Y | 101870.00 |
| SS of Group Y | 14303.23 |
| t-Value | 0.74 |
| Degrees of Freedom | 82 |

Note. The t-Value showed that there wasn't a significant difference between the groups.

The researcher used the t-value and the degrees of freedom to determine significance for the results of Groups X and Y spring DIBELS scores for LNF. The researcher used the t-value of 0.74 and compared it to the values for the degrees of freedom at 82. Significance wasn't determined for $p \geq$ at 0.05, 0.01 and 0.001 levels.

Table 4

Distribution of t with 82 Degrees of Freedom

| df | p | | |
|----|-------|-------|-------|
| | .05 | .01 | .001 |
| 82 | 1.980 | 2.617 | 3.373 |

Note. $p \geq$ at 0.05, 0.01 and 0.001 levels doesn't show significance.

Findings

Data obtained were used to compare the growth of each school year and determined the significance of the growth. The data compared the 2008-2009 school year that didn't receive intentional instruction on the DIBELS test for LNF and the 2009-2010 school year that received intentional LNF practice with whole group instruction and Progress Monitoring. Through statistical analysis of the data, it was determined that there wasn't a significant difference on the DIBELS scores for LNF between the experimental (Group X) and control (Group Y) groups at $p \geq$ at 0.05 (1.980), 0.01 (2.617) and 0.001 (3.373) levels. Accordingly, these findings accepted the null hypothesis at all levels of probability. The hypothesis wasn't supported at all levels of probability. Table 5 showed the outcome of the null hypothesis and hypothesis. The null hypothesis was accepted and the hypothesis wasn't supported.

Table 5

Level of Support of the Hypothesis

| | .05 | .01 | .001 |
|-----------------|------------|------------|------------|
| Null Hypothesis | Accepted | Accepted | Accepted |
| Hypothesis | No Support | No Support | No Support |

Discussion

The researcher discovered that the hypothesis made wasn't supported by the data (i.e. Students who had intentional practice of the DIBELS test throughout the school year showed significant growth as tested by the LNF DIBELS test). The problem which represented the focus of the study was therefore found to indicate a small amount of growth by the students but not enough to support the hypothesis according to the t-test and degrees of freedom.

Summary

Data presented and analyzed in Chapter 4 indicated: The intentional practice of the DIBELS LNF test did not have an effect on the Kindergarten LNF DIBELS scores at McClure Elementary School (MES). Accordingly, the hypothesis wasn't supported at all levels of probability. Chapter 4 reviewed and detailed the description of the environment, hypothesis, null hypothesis, results of the study, findings, and a summary.

CHAPTER 5

Summary, Conclusions and Recommendations

Introduction

The purpose and nature of the research Project was to compare the growth of students who didn't have intentional practice during whole reading group time to students that had intentional practice. Students had significant growth from fall to spring every year. The addition of intentional teaching of the DIBELS LNF test was tested to see if the growth in the 2009-2010 students was more significant than the previous year. Continual Progress Monitoring occurred to monitor the students' growth.

Summary

The researcher used intentional practice of the LNF for the DIBELS test during whole group reading time to test to see if it would make a significant difference in the growth of the students from fall to spring as compared to the previous year's students. The researcher gathered evidence from the results of the DIBELS test in September of 2008 and 2009 and from May of 2009 and 2010. The results were entered into a program (STATPAK) to determine significance. According to the results of the t-test, degrees of freedom, and the distribution of t there wasn't significance in the intentional teaching of LNF during whole group reading

time compared to the previous year without intentional whole group practice.

Conclusions

From the review of literature in Chapter two and the analysis of data in Chapter four, the following conclusions have been reached:

1. As stated in Chapter 2, the author used the Five Big Ideas of early literacy skills and focused the instruction on one aspect of that. The Five Big Ideas are the basis of the DIBELS test and what had measured students' growth. The focus of the study was centered on a test that was administered in the fall, winter and spring. It was the only test administered three times throughout the year. The researcher focused on the LNF aspect.

2. With the focus on letter names, there was some significant growth for certain students. One student scored five letter names in a minute in the fall and then scored 66 letter names in the spring. That did show significant growth, but it didn't carry through the entire group. Some students were fast with their letter names to begin with. They grew with the speed of their letter names but not enough to show great significance.

3. The results of the t-test showed that there wasn't significance in the intentional practice letter naming during whole group instruction compared to the previous year. There were areas of significant growth but not carried through the entire sample of students.

4. Other factors also played a part in the results of the study. After further evaluation of the students the Kindergarten class of 2009-2010 had four students that attended resource room activities, nine students received speech services, eight students were in the process of being referred for special services during the time of the study, four students had been prescribed glasses and haven't worn them, and many students had failed to return reading homework that included letter naming practice. About ten of the students had struggled with test anxiety and timing.

Recommendations

Based on the conclusions cited above, the following recommendations have been made:

1. More intentional practice of all parts of the DIBELS test should be practiced during whole group reading time. Intentional practice

could also be added to small group reading time, homework, and transition times.

2. Students that are struggling in all areas of the DIBELS test should have extra interventions and intentional practice to help ensure understanding of test and help anxiety levels.

3. All students should have timed testing to help familiarize the students with what is expected. More frequent Progress Monitoring could be done for students that are struggling with understanding the test and test anxiety.

4. School districts should allow for additional help in the Kindergarten classrooms for more individualized small group instruction that can focus on the parts of the DIBELS that the students are struggling in.

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APPENDIX

Table 1

DIBELS Scores for Groups X (2009-2010) and Y (2008-2009)

| | Fall | Group X Spring | Fall | Group Y Spring | |
|-----|------|-------------------|------|-------------------|----|
| S1 | 0 | 59 | T1 | 0 | 13 |
| S2 | 19 | 30 | T2 | 0 | 6 |
| S3 | 5 | 35 | T3 | 0 | 32 |
| S4 | 20 | 41 | T4 | 0 | 20 |
| S5 | 2 | 66 | T5 | 3 | 67 |
| S6 | 8 | 38 | T6 | 2 | 37 |
| S7 | 11 | 50 | T7 | 4 | 68 |
| S8 | 0 | 67 | T8 | 6 | 41 |
| S9 | 4 | 70 | T9 | 6 | 48 |
| S10 | 13 | 27 | T10 | 0 | 52 |
| S11 | 5 | 44 | T11 | 0 | 38 |
| S12 | 0 | 9 | T12 | 1 | 36 |
| S13 | 0 | 72 | T13 | 0 | 47 |
| S14 | 0 | 34 | T14 | 26 | 65 |
| S15 | 5 | 66 | T15 | 26 | 84 |
| S16 | 0 | 32 | T16 | 15 | 66 |
| S17 | 18 | 72 | T17 | 27 | 76 |
| S18 | 17 | 49 | T18 | 22 | 56 |
| S19 | 22 | 48 | T19 | 0 | 26 |
| S20 | 37 | 66 | T20 | 0 | 56 |
| S21 | 20 | 54 | T21 | 0 | 37 |
| S22 | 37 | 64 | T22 | 0 | 32 |
| S23 | 5 | 42 | T23 | 15 | 47 |
| S24 | 0 | 26 | T24 | 24 | 65 |
| S25 | 3 | 68 | T25 | 30 | 67 |
| S26 | 4 | 58 | T26 | 0 | 56 |
| S27 | 6 | 29 | T27 | 2 | 31 |
| S28 | 3 | 58 | T28 | 21 | 64 |
| S29 | 0 | 7 | T29 | 0 | 19 |
| S30 | 7 | 23 | T30 | 2 | 62 |
| S31 | 25 | 44 | T31 | 6 | 68 |
| S32 | 5 | 63 | T32 | 0 | 41 |

| | | | | | |
|-----|------|---------|------|----|---------|
| S33 | 6 | 42 | T33 | 10 | 42 |
| S34 | 21 | 81 | T34 | 1 | 14 |
| S35 | 7 | 45 | T35 | 1 | 48 |
| S36 | 18 | 70 | T36 | 29 | 39 |
| S37 | 12 | 68 | T37 | 25 | 72 |
| S38 | 9 | 52 | T38 | 9 | 36 |
| | | Group X | | | Group Y |
| | Fall | Spring | Fall | | Spring |

| | | | | | |
|-----|----|----|-----|---|----|
| S39 | 17 | 84 | T39 | 3 | 74 |
| S40 | 7 | 28 | | | |
| S41 | 16 | 67 | | | |
| S42 | 16 | 38 | | | |
| S43 | 22 | 53 | | | |
| S44 | 46 | 76 | | | |
| S45 | 4 | 56 | | | |

Note. Students' scores for DIBELS test in September and May for 2008-2009 and 2009-2010 school years.