

Evaluating the Effects of Dynamic Indicators of Basic
Early Literacy Skills Test Administration

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MASTERS' PROJECT

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FACULTY APPROVAL

Evaluating the Effects of Dynamic Indicators of Basic
Early Literacy Skills Test Administration

Approved for the Faculty

Andon Montenegro, Faculty Advisor

ABSTRACT

The purpose of this study was to determine if the way in which the Dynamic Indicators of Basic Early Literacy Skills (DIBELS) test was administered effected student scores. The 20 students that participated in the study were enrolled in the researchers classroom during the 2006-2007 school year. The students were grouped into two homogeneous groups, treatment (X) and control (Y). The students DIBELS Initial Sound Fluency scores from the fall and winter of the 2006-2007 school year were compared using an independent *t*-test to determine whether or not the way the test was administered effected student scores. The null hypothesis was accepted and the hypothesis was not supported for the .05, .01, and .001 levels.

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CHAPTER 1

Introduction

Background for the Project

Resulting from the No Child Left Behind Act, that was signed into law by President Bush on January 8, 2002, there was incredible pressure for teachers, classrooms and schools to make sure that all students were reading at grade level by the time they were in the third grade. President Bush's agenda was to improve The United States of America public school system, and focused on using scientifically proven methods for reading instruction and assessment.

In 1997 The United States Congress requested that The National Reading Panel (NRP) assemble and publish years of collected scientific research on proven methods of teaching children to read. From the findings of the NRP, the Reading First initiative was put into effect. Reading First was a nation wide grant that provided funding assistance to high poverty schools through the use of scientifically proven reading instructional and assessment programs in Kindergarten through grade three classrooms. The Dynamic Indicators of Basic Early Literacy Skills (DIBELS) was a proven reading assessment tool, according to Reading First. The Dynamic

Indicators of Basic Early Literacy Skills was a standardized test that assessed letter naming, initial sounds, phoneme segmentation, nonsense words and oral reading, and was administered in a few minutes to each student individually (Good & Kaminski, 2002).

Teachers had to ensure that all students would be reading at grade level by the end of third grade. The Dynamic Indicators of Basic Early Literacy Skills scores were used for things such as ability grouping and identification of students that were in need of extra interventions, the test scores needed to be valid. Thus further investigation of how the DIBELS test was administered to students was deemed necessary by the researcher.

Statement of the Problem

As voiced by Kindergarten teachers, there was a need to change how students were administered DIBELS tests within Camas Elementary. This was evidenced by inconsistencies between students test scores after administration by different administrators throughout the year, instead of the same test administrator consistently. As consequence, students DIBELS test scores were questioned.

Purpose of the Project

The purpose of this project was to evaluate whether or not the use of the same test administrator consistently throughout the year, instead of the use of different test administrators would have effected the DIBELS test scores of Kindergarten students. The DIBELS test scores of two groups of students in one Kindergarten classroom were used to determine if the way test administrators were used made a difference in the students recorded test scores.

Delimitations

The study only included students that were enrolled at Camas Elementary school in Wapato, Washington, who were enrolled in the researcher's classroom. The study involved one group of Kindergarten students. These students were from the researcher's classroom during the 2006-2007 school year. The students were grouped into two groups, treatment(X) and control(Y). The study also, only included test administrators that were employed and trained by the Wapato School District to perform DIBELS assessments. The researcher was not one of the test administrators.

The age of the students used in the research varied between five and seven years of age. Of the 20 students

in the research study, 12 were listed as Native American, six as Hispanic and two as Caucasian. There were nine girls and 11 boys. Eight of these students received Speech/Language services provided by the district. Five received other Special Education services. Three of the students were bilingual Spanish-English speaking students. Daily classroom instruction was presented in English only. The DIBELS Reading assessment was administered to all students in English only.

Assumptions

During the researcher's study, the following assumptions were believed to be true. There were inconsistencies between student's past DIBELS test scores. The researcher assumed that the inconsistencies between test scores had to do with the inconsistencies in how the test was administered, not due to the specific test administrators that were used. The researcher assumed that all test administrators had the same DIBELS training, were following the same testing script, and were therefore equally valid testers. The researcher assumed that DIBELS test scores in the treatment group would increase due to the fact that there would be no inconsistencies in how the test was administered to that group.

Hypothesis

There was a difference in DIBELS test scores between students that had the same test administrator throughout the year and those that did not. This was supported by the DIBELS data that was gathered and compared.

Null Hypothesis

There was no significant difference in DIBELS test scores between students that had the same test administrator throughout the year and those that did not. Significance was determined for $p \geq .05, .01, .001$.

Significance of the Project

The researcher thought it would be beneficial to look at DIBELS data and whether or not the data was effected by how the test was administered, specifically if scores were effected when students had a same test administrator throughout the year compared to students that had different test administrators throughout the year.

Procedure

For the purpose of this study, the following procedure was followed:

1. Before the beginning of the 2006-2007 school year, the researcher discussed with the Assistant

Principal and asked permission to alter the schools protocol for how DIBELS data was acquired. The past school protocol was that whatever test administrator was available would test a classroom, or partial classroom of students. This resulted in students within a specific classroom being tested by three different testers, two different testers, or one tester throughout one school year, which caused differences in how students were tested between classrooms. During the aforementioned time the researcher was given permission to change school protocol for the classroom of students and begin the study.

2. After permission was granted the researcher assessed student ability to identify and name upper and lower case letters as well as the recognition of letter sounds.

3. The researcher sorted students into two groups that were as homogeneous as possible in regards to knowledge and ability.

4. The researcher labeled one group, group Y or the control group that received DIBELS testing three times by different test administrators throughout one school year.

5. The other group was then labeled group X, or

the treatment group that received DIBELS testing three times by the same test administrator throughout one school year.

6. The control group Y and treatment group X were then tested in the fall, winter and spring of the 2006-2007 school year.

7. The data were gathered and inputted into the DIBELS online data base by the researcher in the fall winter and spring of the 2006-2007 school year.

8. The data were compared statistically to determine whether or not there was no significant difference between the two groups. The nonequivalent control group design using the convenience sample was used.

Definition of Terms

Low income. This meant that a person's family made low wages according to the federal guidelines for the standard of living.

Migrant. This meant that a person's family made their living from the land.

Transitional Bilingual. This meant that a person was in transition from being able to speak one language, to being able to speak two languages.

Acronyms

DIBELS.Dynamic Indicators of Basic Early Literacy

Skills

EALR.Essential Academic Learning Requirement

GLE.Grade Level Expectation

NRP.National Reading Panel

OSPI.Office of the Superintendent of Public

Instruction

WASL.Washington Assessment of Student Learning

CHAPTER 2

Review of Selected Literature

Introduction

According to the researcher, the way in which the DIBELS test was administered to Kindergarten students at Camas Elementary needed to be evaluated. This was because of the important role that the test scores played in the placement of students in special programs and interventions. It also was voiced by teachers that there were discrepancies within and between classrooms and schools, as to how the test was administered and with the student test scores that teachers received.

The following literature was selected as it related to the problem that was evaluated. The researcher first looked at Dynamic Indicators of Basic Early Literacy Skills(DIBELS), as this was the test that was administered it was important to understand. The researcher also felt that it was important to understand Camas Elementary students, as the students from the study were in fact Camas Elementary students. Finally, students of poverty was chosen as the last area of focus research. This was because the vast majority of students that attend Camas Elementary were considered impoverished and it was important to understand their uniqueness specific to poverty.

Dynamic Indicators of Basic Early Literacy Skills

The Dynamic Indicators of Basic Early Literacy Skills (DIBELS) literacy assessment was a scientifically based evaluative tool for students in Kindergarten through sixth grade. It came about as a result of Reading First initiative and was selected as a proven research based assessment tool, in accordance with the National Reading Panel (NRP). The DIBELS assessment measured the five Big Ideas, Phonemic Awareness, Alphabetic Principle, Accuracy & Fluency with Connected Text, Vocabulary and Comprehension, that were identified by the NRP in 2000. The Institute for the Development of Educational Achievement listed what Big Ideas DIBELS measured:

Phonemic Awareness is measured by Initial Sounds Fluency (ISF) and Phoneme Segmentation Fluency (PSF). Alphabetic Principle is measured by Nonsense Word Fluency (NWF). Accuracy & Fluency with Connected Text is measured by Oral Reading Fluency (ORF). Vocabulary is measured by Word Use Fluency (WUF; still under development). Comprehension is measured by ORF and Retell Fluency (RTF). (<http://dibels.uoregon.edu/>)

The DIBELS tests were short and lasted approximately one minute per section. They were administered to students individually and were timed with a timer that was used by the test administrator. The test administrator was responsible for testing, scoring, and timing each individual student, one at a time in accordance with the DIBELS administration and scoring guide directions. According to the Florida Center for Reading Research (2006), Kindergarten students were administered the following sections of the DIBELS assessment throughout one school year, Letter Naming, Initial Sounds, Phoneme Segmentation and Nonsense Words. Although DIBELS was a scientifically proven assessment method under the Reading First initiative, people questioned the DIBELS assessment and its design. Ken Goodman(2006) was referenced in an October 2006 article of the *FairTest EXAMINER* as saying:

Teachers must score kids on the fly while administering the test and paying attention to the student. While administering the test, teachers must use a stopwatch, which students find distracting. Because of these flaws, DIBELS can not be administered and scored consistently. (p.17)

There was also discussion about the specific focus of DIBELS assessment. Robert J. Tierney & Catherine Thome (2006) were quoted in the aforementioned article as saying:

DIBELS may be perpetuating the (race and class) literacy gap it has promised to eliminate...[The] definition of literacy has been narrowed for the most vulnerable students...Once again, the rich get richer and the poor are left only with the most basic of basics.(p.17)

The DIBELS test has been used as a Reading assessment tool at Camas Elementary since the 2005-2006 school year. Camas used DIBELS to assess Kindergarten through second grade students in Reading. District trained DIBELS test administrators were responsible for administering the test. They would come to a teacher's classroom and call one student out of the room at a time. The test administrator would take the student to the designated testing area, perform each subtest, each lasting approximately one minute, then return the child to class in exchange for another. Classroom teachers were not allowed to test students, but were responsible for entering student scores onto the University of

Oregon's online DIBELS database. According to Ken Goodman (2006):

Within a few days of entering kindergarten, hundreds of thousands of five year olds are given their first opportunity to taste failure in their ability to say the names of letters in three seconds, say the sound that a picture name begins with in three seconds, and sound out three letter words in three seconds. And if they can't get enough letters named, initial sounds made, or words sounded in one minute in each DIBELS subtest then they have failed and are thus in need of intensive instructions even though they just started kindergarten. From then on they will be DIBELed three times during each year through third grade and sometimes beyond. By midyear in kindergarten the children also must sound out a page of nonsense syllables. . . . five year olds are simply overwhelmed by being escorted to an unfamiliar place in the school where a stranger with a stop watch rushes them through a series of tasks and stops them before they have had any chance to figure out what is happening. (p.1)

Camas Elementary was not a Reading First school. Even

though DIBELS was seen by Camas Elementary as a dipstick assessment tool, teachers felt pressure from administrators to improve student DIBELS scores by improving student automaticity and spending instructional time teaching to the test.

Camas Elementary Students

Camas Elementary was one of three elementary schools at Wapato School District #207 at Wapato, Washington. According to the Office of the Superintendent of Public Instruction(OSPI) and the Washington State Report Card, there were 604 students enrolled at Camas Elementary school during the October 2005 Student Count. The majority of the 604 students were considered to be low income minority students. The demographics for Camas Elementary were as follows.

1. Hispanic, 64.9%.
2. American Indian, 27.6%.
3. White, 5.1%.
4. Asian, 2.0%.
5. Black, 0.3%.

In addition, 91.8% of the students received Free or Reduced Price Meals, 13.5% received Special Education Services, 31.7% were considered to be Transitional Bilingual and 20.2% were Migrant

(reportcard.ospi.k12.wa.us). According to the researcher who was employed by the Wapato School District and taught Kindergarten at Camas Elementary, Camas Elementary was a K-5 building that sat on the Yakama Indian Reservation. Wapato was considered a rural farming community, with many migrant farm workers as well as Native American families that lived in Indian housing communities on the Yakama Indian Reservation. Camas Elementary housed two administrators, three secretaries, one nurse, 34 teachers and 27 paraeducators. Camas Elementary was not a Reading First School, as Camas teachers voted against applying for the grant. The instruction at Camas was guided by the Washington State Essential Academic Learning Requirements (EALR) and the Washington State Grade Level Expectations (GLE). Camas Elementary used a Scott Foresman Reading series to teach Reading and the Math Expressions series to teach Mathematics. The aforementioned series were the instructional materials that guided the Reading and Math instruction at Camas Elementary during the 2005-2006 and 2006-2007 school years. The third, fourth and fifth grade students participated in the Washington Assessment of Student Learning (WASL). In 2005-2006, 21.0% of third grade

students passed the Reading section and 22.0% passed the Math. For fourth grade, 61.1% of students passed the Reading, 35.8% passed the Math and 42.1% passed the Writing. In fifth grade, 58.4% of students passed the Reading, 34.0% passed the Math and 18.8% passed the Science section of the WASL(reportcard.ospi.k12.wa.us). According to the researcher, each grade level created a writing assessment that was administered to their students three times during the school year. With the exception of Kindergarten, each grade level also used Scott Foresman and Math Expressions test scores for report card scores for their students. Kindergarten used an extensive testing kit specific to their grade level that corresponded directly with the Kindergarten report card at Camas Elementary. Kindergarten students were tested using the test kit and the scores from the testing were imputed directly to the corresponding Camas Elementary Kindergarten report card.

Students From Poverty

As stated above, the majority of students at Camas Elementary were low income minority students. There was a total of 91.8% of students that received free or reduced-price meals. Of the school population, 64.9% of students were Hispanic and 27.6% were listed as American.

Indian (reportcard.ospi.k12.wa.us). Because of the percentage of students that received free or reduced-price meals, Camas Elementary was considered a high-poverty school. This meant that the majority of students that attended were considered to have lived in poverty. The Evaluation and Research Department (2001) stated that, individual students from low-income families have a statistically higher risk of dropping out of school, low academic achievement, and retention in grade, among other negative outcomes. Bransford, Brown, Cocking, Donovan and Pellegrino (2000) found:

There are great cultural variations in the ways in which adults and children communicate, and there are wide individual differences in communication styles within any cultural community. All cultural variations provide strong supports for children's development. However, some variations are more likely than others to encourage development of the specific kinds of knowledge and interaction styles that are expected in typical U.S. school environments. It is extremely important for educators—and parents—to take these differences into account. (p.108-109)

Students with backgrounds in poverty were found to

have different communication styles than students from middle class backgrounds. Students from poverty communicated with casual register, instead of the formal register of middle class students. According to Dr. Maria Montano-Harmon, as cited by Payne(2001), the majority of minority and poverty students functioned in casual register. When casual register was used, the speaker or writer goes around and around an issue before finally getting to the point. Casual register was considered the language between friends. Casual register word choice was not specific, incomplete and dependent on body language or nonverbal cues. Students that used casual register could not use formal register without first being taught formal register. Communicating with casual register was a serious problem for students from poverty, as standardized state tests were in formal register. Students from poverty also used random discourse patterns and storytelling. As casual register was the language of poverty, formal register was the language of the Middle and Upper class, work and school. Complete sentences and specific word choices were used. The formal register speaker or writer gets straight to the point(Payne, 2001). Paul C. Gorski(2005) said this of Payne's work:

A *Framework* consists, at the crudest level, of a stream of stereotypes and a suggestion that we address poverty and education by "fixing" poor people instead of reforming classist policies and practices. The root of her framework-that poverty persists because people in poverty don't understand the rules of the middle class-exemplifies deficit thinking....in addition, her discussion of language registers and discourse patterns supports the classist notion that rigid register and discourse patterns used by certain people are superior to those used by other people. Ultimately, Payne wants students in poverty to assimilate into a system they often experience as oppressive and she calls on predominantly middle class teachers to facilitate and enforce this assimilation. (p.3-4)

It was also found that relationships were much more important for students from poverty, than they were for students from middle class backgrounds. Students from poverty had an oral culture, this meant that students from poverty acquired most of the information from their everyday life experiences verbally, not written as was the case for the middle class. There was a strong connection to poverty and oral culture and many Native

Americans were found to have oral culture. Students from oral culture needed to hear things repeated over and over again. Oral culture students tended to store information in their short term memory, and information that was not used daily was tossed out. Most importantly it was found that oral culture students from poverty needed relationships and meaningful connections, in order for them to take risks in learning and venture out of their comfort zone (Beegle, 2004).

This information was important as, "minority students, particularly those from low-income backgrounds, are typically underrepresented in programs for the gifted" (Tomlinson, et al., as cited by Raborn, 2002). Was this due to the lack of meaningful relationships between impoverished students and their teachers, or were the differences in communication styles between students from poverty and their middle class teachers overlooked? The National Commission on Teaching and America's Future(2004) as cited by Gorski(2005) said:

that children...who come from families with poorer economic backgrounds...are not being given an opportunity to learn that is equal to that offered children from the most privileged families. The

obvious cause of this inequality lies in the finding that the most disadvantaged children attend schools that do not have basic facilities and conditions conducive to providing them with a quality education. (p.2)

Maslow's Hierarchy of Needs also needed to be considered. If a student's lower level needs were not being met, for example if they were hungry or did not feel safe, they would not be able to focus on higher level needs, such as the need to acquire knowledge.

Summary

As stated in the introduction, the way in which the DIBELS test was administered at Camas Elementary needed to be evaluated. This was because of the important role that DIBELS test scores played in the placement of students in interventions and other special programs. It was also voiced by teachers that there were discrepancies within and between classrooms and schools as to how the test was administered and with the student test scores that teachers received. Chapter 2 focused on literature review as it related to the topic of study and the problem that was evaluated. The DIBELS was the first topic of review, as it was the data gathering tool used by the researcher for the purpose of the study.

The DIBELS assessment is a proven research based assessment tool that was used at Camas Elementary to evaluate student learning. However, there were many questions regarding DIBELS and its use in schools, specifically its use with young students and students from poverty. The second topic of literature review was that of the students at Camas Elementary School. The vast majority of students that made up Camas Elementary were minority students that lived in poverty. The final topic for literature review was that of students from poverty. This was chosen by the researcher, as the majority of students that attended Camas Elementary were in fact students from poverty. The researcher felt that it was extremely important to understand the distinct differences and uniqueness that are very specific to poverty. Differences in communication styles and how those differences may effect the learning within the classroom and testing situations where communication was a part, was highlighted specifically within that section, as well as differing views on how to teach and test students from poverty.

CHAPTER 3

Methodology and Treatment of Data

Introduction

As voiced by Kindergarten teachers, there was a need to change how students were administered DIBELS tests within Camas Elementary. This was evidenced by inconsistencies between students test scores after administration by different administrators throughout the year, instead of the same test administrator consistently. As consequence, students DIBELS test scores were questioned.

The purpose of this project was to evaluate whether or not the use of the same test administrator consistently throughout the year, instead of the use of different test administrators would have effected the DIBELS test scores of Kindergarten students. The DIBELS test scores of two groups of students in one Kindergarten classroom were used to determine if the way test administrators were used made a difference in the students recorded test scores.

Methodology

The researcher used the experimental method. The nonequivalent control group design using the convenience sample was used. The researcher used two groups of

students, from the researchers classroom. One group was labeled group Y, or the control group that received DIBELS testing three times by three different test administrators. The second group was labeled group X, or the treatment group that received DIBELS testing three times by the same test administrator throughout one school year. The gathered data was compared statistically to determine whether or not there was no significant difference between the two groups.

Participants

The participants in the study were students that were enrolled at Camas Elementary school in Wapato, Washington, who were also enrolled in the researcher's classroom. The study involved one group of Kindergarten students. These students were from the researcher's classroom during the 2006-2007 school year. The age of the students used in the research varied between five and seven years of age. Of the 20 students in the research study, 12 were listed as Native American, six as Hispanic and two as Caucasian. There were nine girls and 11 boys. Eight of these students received Speech/Language services provided by the district. Five received other Special Education services. Three of the students were bilingual Spanish-English speaking

students. Daily classroom instruction was presented in English only. Camas Elementary was considered a high poverty school.

Instruments

The Dynamic Indicators of Basic Early Literacy Skills 6th Ed., University of Oregon, Kindergarten Benchmark Assessment, was implemented and used for assessment of student literacy skill as well as the evaluation of the DIBELS test administration itself. The DIBELS Kindergarten Benchmark Assessment was administered and graded in the fall, winter and spring of the 2006-2007 school year, by trained test administrators that were employed by the Wapato School District. The DIBELS assessment measured student literacy in the following areas:

1. Initial Sound Fluency (Fall, Winter)
2. Letter Naming Fluency (Fall, Winter, Spring)
3. Phoneme Segmentation Fluency (Winter, Spring)
4. Nonsense Word Fluency (Winter, Spring)
5. Word Use Fluency (Optional), (Fall, Winter, Spring)

The Initial Sound Fluency test was given in the fall and again in winter, only. The winter scores served as the post test when scores were compared between the two

student groups, treatment(X) and control(Y).

Design

For the purpose of this study, the nonequivalent control group design using the convenience sample was used. The DIBELS Initial Sound Fluency scores for winter 2007 were used as a posttest to compare the effects of using different test administrators, compared to using the same test administrator.

Procedure

For the purpose of this study, the following procedure was followed:

1. Before the beginning of the 2006-2007 school year, the researcher discussed with the Assistant Principal and asked permission to alter the schools protocol for how DIBELS data was acquired. The past school protocol was that whatever test administrator was available would test a classroom, or partial classroom of students. This resulted in students within a specific classroom being tested by three different testers, two different testers, or one tester throughout one school year, which caused differences in how students were tested between classrooms. During the aforementioned time the researcher was given permission to change school protocol for the classroom of students

and begin the study.

2. After permission was granted the researcher assessed students ability to identify and name upper and lower case letters as well as the recognition of letter sounds.

3. The researcher sorted students into two groups that were as homogeneous as possible in regards to knowledge and ability.

4. The researcher labeled one group, group Y or the control group that received DIBELS testing three times by different test administrators throughout one school year.

5. The other group was then labeled group X, or the treatment group that received DIBELS testing three times by the same test administrator throughout one school year.

6. The control group Y and treatment group X were then tested in the fall, winter and spring of the 2006-2007 school year.

7. The data was gathered and inputted into the DIBELS online data base by the researcher in the fall winter and spring of the 2006-2007 school year.

8. The data was compared statistically to determine whether or not there was no significant

difference between the two groups. The nonequivalent control group design using the convenience sample was used.

Treatment of Data

Two groups from within the same classroom, during the 2006-2007 academic school year were used for this study, a control group(Y) and a treatment group(X). The DIBELS assessment was administered in the Fall, Winter and Spring of the 2006-2007 school year. The DIBELS Initial Sound Fluency test was only administered in the Fall and Winter of the 2006-2007 school year. The Winter DIBELS Initial Sound Fluency test scores were used as a posttest to compare the two groups used in the study.

A *t*-test of independent samples was used to analyze the DIBELS Initial Sound Fluency scores. The independent *t*-test was performed to see if there was a significant difference between the means of the DIBELS Initial Sound Fluency posttest scores of the control and treatment groups. The *t*-test for independent samples was calculated using the Windows Statpack computer software that accompanied the Educational Research: Competencies for Analysis and Applications textbook(Gay, Mills and Airasian, 2006).

Summary

Chapter 3 identified the type of research method and instrument that was used for the research project. Two independent groups of Kindergarten students were administered the DIBELS assessment, in order to determine if the way in which the DIBELS test was administered effects student scores. The DIBELS Initial Sound Fluency winter scores for the two groups were compared. A *t*-test for independent groups was performed to determine if there was no significant difference between the means of the posttests of the control and treatment groups.

CHAPTER 4

Analysis of Data

Introduction

The purpose of this project was to evaluate whether or not the use of the same test administrator consistently throughout the year, instead of the use of different test administrators would have effected the DIBELS test scores of Kindergarten students. The DIBELS test scores of two groups of students in one Kindergarten classroom were used to determine if the way test administrators were used made a difference in the students recorded test scores. The DIBELS Initial Sound Fluency scores for Winter were compared for the two groups using a t-test for independent samples.

Description of the Environment

The study only included students that were enrolled at Camas Elementary school in Wapato, Washington, who were enrolled in the researcher's classroom. The study involved one group of Kindergarten students. These students were from the researcher's classroom during the 2006-2007 school year. The students were grouped into two groups, treatment(X) and control(Y). The study also, only included test administrators that were employed and trained by the Wapato School District to

perform DIBELS assessments. The researcher was not one of the DIBELS test administrators.

The age of the students used in the research varied between five and seven years of age. Of the 20 students in the research study, 12 were listed as Native American, six as Hispanic and two as Caucasian. Eight of these students received Speech/Language services provided by the district. Five received other Special Education services. Three of the students were bilingual Spanish-English speaking students. Daily classroom instruction was presented in English only. The DIBELS Reading assessment was administered to all students in English only.

Hypothesis/Research Question

There was a difference in DIBELS test scores between students that had the same test administrator throughout the year and those that did not. The aforementioned hypothesis was studied by the researcher.

Null Hypothesis

There was no significant difference in DIBELS test scores between students that had the same test administrator throughout the year and those that did not. Significance was determined for $p \geq .05, .01, .001$.

Results of the Study

The winter scores from the DIBELS Kindergarten Benchmark Assessment for Initial Sound Fluency were shown in Table 1. All twenty students were given the Initial Sound Fluency testing in the fall of 2006 and again in the winter of 2007. No students were excluded from the testing.

Table 1

Kindergarten DIBELS Initial Sound Fluency Winter Scores

Treatment Group		Control Group	
Student	Score	Student	Score
X1	37	Y1	23
X2	6	Y2	6
X3	13	Y3	6
X4	16	Y4	10
X5	34	Y5	9
X6	17	Y6	1
X7	6	Y7	10
X8	15	Y8	14
X9	9	Y9	0
X10	0	Y10	11

Note: Mean of the treatment group=18.00. Mean for the control group=9.88.

In order to test the null hypothesis, the data were treated statistically by performing a *t*-test for

independent groups. The formula was found in Educational Research: Competencies for Analysis and Application (Gay, Mills and Airasian, 2006, p.349).

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

Table 2 showed the *t*-test results when the scores of the treatment group and control group were compared by using the Statpack *t*-test calculations for independent samples.

Table 2

t-Test For Independent Samples

Control Group Comparison to Treatment Group

Statistic	Values
No. of Scores in Group X	9
Sum of Scores in Group X	153.00
Mean of Group X	17.00
Sum of Squared Scores in Group X	3617.00
SS of Group X	1016.00
No. of Scores in Group Y	9
Sum of Scores in Group Y	90.00
Mean of Group Y	10.00
Sum of Squared Scores in Group Y	1200.00
SS of Group Y	300.00
<i>t</i> -value	1.64
Degrees of freedom	16

Table 3 displayed the t -value to have 16 degrees of freedom and the distribution of t for .05, .01, and .001, that were used in the study to determine significance. These values were found in the text, Educational Research: Competencies for Analysis and Application (Gay, Mills and Airasian, 2006, p. 571).

Table 3

Distribution of t

<u>df</u>	<u>P</u>		
	<u>.05</u>	<u>.01</u>	<u>.001</u>
16	2.120	2.921	4.015

Findings

From the aforementioned data, the author of the research concluded that the null hypothesis was accepted at the .05, .01, and .001 levels. There was no significant difference in DIBELS test scores between students that had the same test administrator throughout the year and those that did not. There was no support for the hypothesis, as the scores did not show a significant difference.

Discussion

The researcher expected the results of the study to

support the hypothesis and reject the null hypothesis at least on one of the levels. However, due to the constraints in the size of the research project, time allotted and the amount of students that participated in the study, the findings seem understandable and within reason.

Summary

The research evaluated the effects of DIBELS test administration on two groups of Kindergarten students from within the researchers classroom. The treatment group received DIBELS test administration by the same tester, the control group did not.

The DIBELS Initial Sound Fluency scores were collected in the fall and winter of the 2006-2007 school year. A *t*-test for independent samples was calculated. The results accepted the null hypothesis at the .05, .01, and .001 levels. The research hypothesis was not supported at the .05, .01, and .001 levels. From the data gathered, the author of the research concluded that there was no significant difference in DIBELS test scores between students that had the same test administrator throughout the year and those that did not.

CHAPTER 5

Summary, Conclusions and Recommendations

Introduction

There was incredible pressure for teachers, classrooms, and schools to have all students reading at grade level by the end of third grade. When using standardized test scores for student placement in intervention programs and other special programs, there was an increased need to make sure that the scores were valid and that the way the tests were administered did not effect the outcome of the scores.

Summary

The purpose of this study was to determine if DIBELS test administration had an effect on student DIBELS scores. The researcher looked specifically at the use of one test administrator consistently, compared to the use of random test administrators. The researcher compared two independent student groups. A control group labeled Y, that received DIBELS testing three times by three different test administrators throughout one school year and a treatment group labeled X, that received DIBELS testing three times by the same test administrator throughout one school year. The scores of these two groups were then compared

statistically using an independent t-test to determine whether or not there was no significant difference. This was important to look at, as student DIBELS scores were used for identification of students in need of interventions and student placement in special programs.

The research looked at questions raised about the DIBELS assessment and its use with students from poverty and minority students such as, Hispanic and Native American. The questions had to do with differing language norms for these specific groups.

The research study involved one group of Kindergarten students from the researchers classroom at Camas Elementary School in Wapato, Washington. The students were in the researchers classroom for the 2006-2007 school year. There were 20 students involved in the study. There were 10 students in the treatment group(X), and 10 students in the control group(Y), the groups were as homogeneous as possible.

The instrument used for gathering the data, was the Dynamic Indicators of Basic Early Literacy Skills 6th Ed., Kindergarten Benchmark Assessment. The winter DIBELS Initial Sound Fluency scores were used as post test scores and were compared using a t-test for independent samples. The author of the research

concluded that the null hypothesis was accepted and there was no support for the hypothesis at .05, .01, and .001 levels. There was no significant difference in DIBELS test scores between students that had the same test administrator throughout the year and those that did not. Significance was determined for $p \geq .05, .01, .001$.

Conclusions

The author of the research concluded that the null hypothesis was accepted at the .05, .01, and .001 levels and there was no significant difference in DIBELS test scores between students that had the same test administrator throughout the year and those that did not. There was no support for the hypothesis as there was no significant difference between the two groups.

Recommendations

The researcher recommends that further, larger, more in-depth studies be conducted on the effects of DIBELS test administration and DIBELS test scores. This is because the sample size used in this study was small and did not allow for a conclusion that could be generalized. Further studies could involve a longer period of time and should include a larger sample size, possibly the comparison of two groups of students from

different Kindergarten classrooms.

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APPENDIX

Dynamic Indicators of Basic Early Literacy Skills 6thEd.
University of Oregon
Kindergarten Benchmark Assessment