

T-Test
1/24/06
1/24/06

Students Who Transition to English Reading Compared to Native Spanish Instruction as
Measured by Dynamic Indicator of Basic Early Literacy Skills

A Special Project

Presented to

Dr. Jack McPherson Heritage University

In Partial Fulfillment

Of the Requirement for the Degree of

Master of Education in Administration

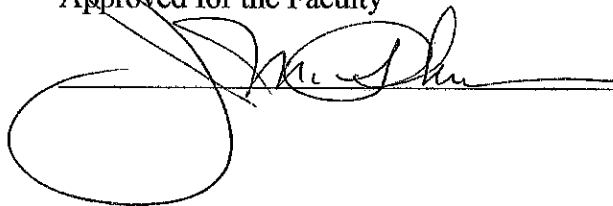
Melissa Stevenson

Summer 2006

FACULTY APPROVAL

Students Who Transition to English Reading Compared to Native Spanish Instruction as
Measured by Dynamic Indicator Basic Early Literacy Skills

Approved for the Faculty

 _____, Faculty Advisor

ABSTRACT

The purpose of this experimental research study was to determine whether students who received instruction in both English and Spanish before transitioning into second grade English reading classes performed better on the DIBEL'S than students who received instruction only in Spanish in Kindergarten and first grade. To accomplish this purpose, a review of selected literature was conducted, related baseline data were obtained and analyzed, and conclusions and recommendations were formulated.

PERMISSION TO STORE

I, Melissa Stevenson, do hereby irrevocably consent and authorize Heritage University Library to file the attached Special Project entitled, Students Who Transition to English Reading Compared to Native Spanish Instruction as Measured by Dynamic Indicator of Basic Early Literacy Skills, and make such paper available for the use, circulation and/or reproduction by the Library. The paper may be used at Heritage University and all site locations.

I state at this time the contents of this paper are my work and completely original unless properly attributed and/or used with permission.

I understand that after three years the paper will be retired from the Heritage University Library. If I choose, it is my responsibility to retrieve the paper at that time. If the paper is not retrieved, Heritage University may dispose of it.

Melissa Stevenson, Author
6/06, Date

TABLE OF CONTENTS

	Page
FACULTY APPROVAL.....	ii
ABSTRACT.....	iii
PERMISSION TO STORE.....	iv
TABLE OF CONTENTS.....	v
LIST OF TABLES.....	viii
CHAPTER 1.....	1
Introduction.....	1
Background for the Project.....	1
Statement of the Problem.....	2
Purpose of the Project.....	3
Delimitations.....	3
Assumptions.....	4
Hypothesis.....	4
Null Hypothesis.....	4
Significance of the Project.....	4
Procedure.....	5
Definition of Terms.....	5
Acronyms.....	7
CHAPTER 2.....	9

Review of Selected Literature.....	9
Introduction.....	9
Implementing the Reading First Initiative.....	9
Best Practices in Reading.....	13
No Child Left Behind Act.....	14
Summary.....	18
CHAPTER 3.....	19
Methodology and Treatment of Data.....	19
Introduction.....	19
Methodology.....	19
Participants.....	20
Instruments.....	20
Design.....	20
Procedure.....	21
Treatment of the Data.....	21
Summary.....	22
CHAPTER 4.....	23
Analysis of the Data.....	23
Introduction.....	23
Description of the Environment.....	23
Hypothesis/Research Question.....	23

	Page
Null Hypothesis.....	23
Results of the Study.....	23
Findings.....	25
Summary.....	25
CHAPTER 5.....	27
Summary, Conclusions and Recommendations.....	27
Summary.....	27
Conclusions.....	27
Recommendations.....	28
REFERENCES.....	29

LIST OF TABLES

	Page
Table 1: Summary of t -Test for Independent Samples.....	24
Table 2: Distribution of t with 14 Degrees of Freedom.....	25

CHAPTER 1

Introduction

Background for the Project

Reading plays a critical role in today's society. Without the ability to read proficiently even the most mundane tasks as reading a medical prescription, buying groceries, filling out a job application, or reading a traffic sign would be impossible. Proficient reading instruction must be implemented in primary grades of our nation's schools. In support of the No Child Left Behind (NCLB) legislation, adopted by the United States Congress in 2001, President George Bush stated:

One of America's greatest attributes is our diversity. Ensuring that all children, regardless of background, have the chance to succeed is a central purpose of the federal role in education. The changes that our schools have witnessed over the last decade have created new challenges to teaching and learning. All parents want their children to graduate with the basic tools needed to work and succeed in today's global marketplace. For the more than 3 million Limited English Proficient (LEP) students in America, this means learning English in school (www.nclb.gov).

To implement the NCLB legislation on a national, state and local level, the Reading First initiative was mandated. As a result, the Wahluke School District (WSD) sought the availability of grant funds to improve overall reading in the primary grades. This decision was particularly important to the WSD where ninety percent of the students were Hispanic and the need existed to provide native Spanish speakers with reading instruction in Spanish and English in grades Kindergarten through grade two. This

decision was consistent with the opinion of U.S. Secretary of Education Margaret Spellings who stated: “One in every five children under eighteen is of Hispanic origin. We must work together to ensure these children stay in school and have a chance to achieve their potential.” Research conducted by Snow, et al. (1998) further supported the belief that “children who read well in early years are far more successful in later years” (Hudson & Snow, 2001).

Each year the United States becomes more ethnically and linguistically diverse, with more than ninety percent of recent immigrants coming from non-English speaking countries. From the 1991-1992 school year through 2001-2002 the number of identified students with limited English proficiencies in public school (K-12) grew ninety-five percent while total enrollment increased by only twelve percent.

Statement of the Problem

In the WSD only thirty-one percent of third grade students were reading at grade level, according to the Dynamic Indicator Basic English Language Scale (DIBELS). In fourth grade, only thirty-nine percent were meeting the standards in reading according to the Washington Assessment of Student Learning (WASL). These statistics were dismal and called for the need to assess the program of reading in the primary grades. It was common knowledge that reading was the cornerstone for all academic subjects. Science, social studies, and math all hinged on reading. For example, the majority of problems asked on the WASL were story problems. Even when students were strong in math they did not do well because of the heavy amount of reading that was required to answer the question thoroughly. According to the United States Department of Education, “reading

opens the door to learning about math, history, science, literature, geography and much more. Thus, young capable readers can succeed in these subjects, take advantage of other opportunities and develop confidence in their own abilities” (www.ed.gov).

Phrased as a question the problem which represented the focus of the present study may be stated as follows: Did student’s who received instruction in Spanish in Kindergarten and first grade before transitioning into English reading classes in grade two, receive higher DIBEL’S reading scores than students who transitioned to English reading classes after receiving instruction in both Spanish and English in Kindergarten and grade one?

Purpose of the Project

The purpose of this experimental research study was to determine whether students who received instruction in both English and Spanish before transitioning into second grade English reading classes performed better on the DIBEL’S than students who received instruction only in Spanish in Kindergarten and first grade. To accomplish this purpose, a review of selected literature was conducted, related baseline data were obtained and analyzed, and conclusions and recommendations were formulated.

Delimitations

The study was conducted in the Wahluke School District during the 2005-2006 school year. Students were tracked to determine whether they received reading instruction in Spanish or English in Kindergarten and first grade. The DIBEL’S reading assessment test was used to obtain third grade student scores which provided essential baseline data used for the study.

Assumptions

The assumption was made that the reading curriculum employed in the present study and the means of instruction were research-based and developmentally appropriate for students in Kindergarten through grade two. The DIBEL'S reading was developmentally appropriate. It was further assumed that all participating Wahluke School District students has a sincere desire to learn.

Hypothesis

Students who receive instruction in both Spanish and English in both Kindergarten and grade one will perform better on DIBEL'S then students who receive instruction only in Spanish in Kindergarten and grade one.

Null Hypothesis

Students who receive instruction in both Spanish and English in both Kindergarten and grade one will not perform better on DIBEL'S then students who receive instruction only in Spanish in Kindergarten and grade one.

Significance of the Project

The fact that two schools in the Wahluke School District were at Step Four in the Annual Yearly Progress (AYP) report required by the NCLB mandate was of particular significance to the present study. Accordingly, drastic changes needed to be made to help student's pass the reading component of the Washington Assessment of Student Learning (WASL). To address this problem the need to provide more solid instruction in Spanish reading was essential. In short, there was a sense of urgency for reading scores to improve in the Wahluke School District. Due to federal and state legislation the fact remained that for students to succeed in life they had to be proficient readers.

Procedure

The procedure employed in the present study evolved in several stages:

1. Throughout the 2000-2005 school years the researcher (Melissa J. Stevenson) discussed the need for the present study with Reading First coordinators at the Office of Superintendent of Public Instruction (OSPI).
2. In November, 2005 permission to undertake the study was obtained from the WSD Superintendent.
3. From November, 2005-January 2006 DIBEL'S reading assessment scores for all participating students were obtained and analyzed.
4. During May, 2006 research-based conclusions and recommendations were formulated.

Definition of Terms

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

background knowledge. The experiences that individuals bring with them when reading.

basal reader. A reading text used that has anthologies that incorporate all reading skills.

benchmark reading. Reading goals set by the Reading First initiative. To fulfill Reading First requirements states had to measure progress in reading skills by using annual assessments.

cognates. Words that have the same meaning in Spanish and English.

comprehension. The ability to understand and gain meaning from what has been read. Often considered the “essence” of reading.

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

five components of reading. In Reading First schools students were taught five skills identified by research as critical to early reading skills, they were the following: fluency, vocabulary, comprehension, phonics, and phonemic awareness.

fluency. The capacity to read text accurately and quickly and with prosody.

nation’s report card. A way to look at long-term trends in academic progress, also called the National Association of Education Progress. The nation’s report card was used to measure learning in each state across the country. This provided policy makers with data about what was working.

native language. The language that the child was reared with, often considered the “mother-language.”

oral language development. Developing oral language.

phonemic awareness. The ability to hear and identify sounds in spoken words.

phonics. The relationship between the letters of written language and the sounds of spoken language.

Reading First. On January 8, 2002, the President signed into law the No Child Left Behind Act of 2001, which added two important new reading programs to the Elementary and Secondary Education Act. These programs were Reading First and Early Reading First. Early Reading First was created to address the growing concern that many of our nation's children began Kindergarten without the necessary foundation to fully benefit from school. Through Reading First, funds were made available for state and local early reading programs.

sheltered English. Strategies/approaches used in the classroom with second language English learners.

Spanish reading. Reading instruction delivered in Spanish.

t-test for independent samples. A parameter 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

ASCD. Association Supervision Curriculum Development

AYP. Annual Yearly Progress

DIBELS. Dynamic Indicator Basic English Language Scale

ESEA. Elementary and Secondary Education Act.

LAS-O. Language Assessment Scale

NAEP. National Assessment of Educational Progress

NCLB. No Child Left Behind

NRC. National Research Council.

NICHID. National Institute of Child Health and Human Development

NRP. National Reading Panel.

OERI. Office of Educational Research and Improvement.

OSPI. Office of Superintendent of Public Instruction

WCPM. Words Correct Per Minute

WLPT. Words Language Proficiency Test

CHAPTER 2

Review of Selected Literature

Introduction

The review of selected literature presented in Chapter 2 has been organized to address:

- Implementing the Reading First Initiative in the Wahluke School District
- Best Practices in Reading
- No Child Left Behind Act
- Summary

The literature reviewed was related to implementation of the Reading First initiative in the Wahluke School District. Research current, primarily within the past five (5) years, was identified through an Educational Resources Informational Center (ERIC) computer search and by means of an internet search. A hand-search of additional selected sources was also conducted.

Implementing the Reading First Initiative in the Wahluke School District

On January 8, 2002 President Bush signed into law the NCLB which added the Reading First initiative. This initiative dramatically changed primary schools across the nation, including the Wahluke School District (WSD), as stated in the NCLB mandate:

The No Child Left Behind law ensures that schools are held accountable for the academic progress of every child, regardless of race, ethnicity, income level or zip code. Because of NCLB, closing the achievement gap is now a national priority. Schools are now held specifically accountable for the annual progress of Hispanic

American students. Schools must have high expectations for every child, the soft bigotry of low expectations is no longer tolerated (www.whitehouse.org).

Implementation of the NCLB in the WSD occurred during the 2001-2002 school year, when K-3 teachers were provided an orientation of Reading First guidelines by their building principals. Teachers were informed that hundreds of thousands of dollars would be granted to low-performing schools for reading curriculum development, staff development, to add a reading coach position. Participants were required to teach reading for ninety minutes with a curriculum that was researched-based and approved by Reading First. Each school district that adopted Reading First has to select a test exam to assess K-3 students three times a year. Data were to be made available for Reading First coordinators to review on a regular basis. For Reading First grant funding to be awarded, eighty percent of participating teachers had to sign their names as assurance that they would accept the grant and follow its stipulations (WSD manual).

Following receipt of the Reading First grant in Wahluke during the summer of 2001, the following two months were spent by participating teachers attending curriculum fairs and staff meetings to come to identify and design a curriculum best suited for Hispanic students. During the ensuing curriculum adoption phase, provision was made for further staff development. Teachers attended workshops and after-school training sessions to become familiar with reading curriculum (WSD Manual). During the curriculum adoption phase special emphasis placed on the following five components of reading:

...effective reading instruction includes teaching children to break apart and manipulate the sounds in words (phonemic awareness), teaching them that these

sounds are represented by letters of the alphabet (phonics) which can then be blended together to form words (phonics), having them practice what they have learned by reading aloud with guidance and feedback (guided oral reading), and applying (reading comprehension) strategies to guide and improve reading comprehension (www.nationalreadingpanel.org).

The program was essential for teachers to understand the importance of the five components and to be able to identify them in the curriculum. More importantly, was their ability to teach the components using proven instruction. In June, 2001, a full-time reading coach was added to each building housing grades K-3. Reading coach responsibilities included: Ordering curriculum, arranging professional development, training teachers, performing model lessons, and contacting other schools that had superior reading programs already in place. Over the course of the next two years, from 2001-2002 test scores for grades K-5 showed significant improvement. At this time the district focus of ninety minutes of uninterrupted reading was officially integrated into the K-5 school schedule. Although the new reading program proved successful, the curriculum fell short of Wahluke's greatest challenge, addressing the needs of approximately ninety percent of the native Spanish speaking students population. The National Reading Panel, though skilled and thorough in its research and recommendations, focused its research on the native English speaking student population only, and was therefore not consistent with the demographics of WSD. The issue of addressing the needs of so many second language learners therefore remained an ongoing problem in the WSD (WSD Manual).

At the 2005-2006 Reading First summer institute, the WSD administration was informed of the criteria needed to continue the grant. The grant paid for the new curriculum and was funded directly by the 2001 NCLB policy instituted by President Bush. To continue the grant, 50% of the students three of four grades, including grade three had to meet DIBELS fluency benchmarks at the spring, 2006, testing window period. This continuation requirement, required staff to study student data and instructional methodology in-depth. Before and after school reading intervention programs were implemented, focused on students closer to meeting benchmark standards. This effort raised new questions and encouraged further discussion on the issue of Spanish reading instruction. Questions were posed to the Reading First coordinators regarding the best way to teach Hispanic students to read. For example, the fact that nearly ninety percent of the WSD has Hispanic there and not enough native Spanish-speaking teachers were available to teach the students in their mother tongue posed unique problems. Although the lack of Spanish speaking teachers needed to support the large number of Hispanic students in Wahlake was unfortunate district administrators found it necessary to hire teachers who were not trained in ESL or bilingual strategies (WSD Manual).

Problems associated with a shortage of well-qualified bilingual/ESL teachers were alluded to in the following statement by Echevarria, et al. (2004):

To compensate for the shortage of trained ESL, bilingual or content teachers, Principals have hired less-qualified teachers used substitutes, canceled courses, increased class size, or asked teachers to teach outside their field of preparation. The National Commission on Teaching and America's Future (1996) and

McDonald and Hill (1993) have reported significant shortages of teachers qualified to teach students with limited English proficiency and of bilingual teachers trained to teach in another language (August et al., 2000).

Related research conducted by Cummins (1979) supported the advantages of instruction when presented in one's native language. According to this authority, students transferred what they learned in their native language to the new language. This hypothesis, termed the Linguistic Interdependence Hypothesis was defined as follows:

Academically mediated language skills are interdependent thus the level of second language competence which a bilingual child attains is partially a function of the type of competence the child has developed in the first language at the time in which intensive exposure to the second language begins (August et al., 2000).

Best Practices in Reading

In 1997, Congress instructed the director of the National Institute of Child Health and Human Development (NICHD) and the US Secretary of Education to organize a panel of experts in the field of reading. The purpose of this group was to research best practices in reading as well as necessary instructional methodology and essential curricular materials. The panel was composed of fourteen members and was named the National Reading Panel (NRP). Panel members were then divided into the six subgroups: alphabetic; comprehension; fluency; methodology; teacher education; and technology/next steps. As panelists, began their study, they soon realized more than one hundred thousand articles dealing with reading have been published since 1967. The Panel began prioritizing topics and considered research focused primarily on appropriate

reading methodology and approaches, as well as literature relevant to environment, critical skills, and early development interventions. From these investigatory efforts best practices in reading focused on the following components: phonic awareness; phonics; comprehension; vocabulary; and, alphabets. The following statement from an NRP press release described the work of that body:

After nearly two years of analysis and assessment, the National Reading Panel today officially released its report on scientific, research-based reading instruction and its readiness for application in the classroom. The report clearly articulates the most effective approaches to teaching children to read, the status of the research on reading, reading instruction practices that are ready to be used by teachers in classroom around the country, and a plan to rapidly disseminate the findings to teachers and parents (www.nationalreadingpanel.org).

No Child Left Behind Act

President George W. Bush signed Public Law 107-100-No Child Left Behind Act on January 8, 2002. The importance of the passage of this Act, which has changed the culture of American schools, is alluded to in the following statement:

President George W. Bush signed into law the No Child Left Behind Act (NCLB), which reauthorized the Elementary and Secondary Education Act (ESEA), a law first passed in 1965. The new law reflected an unprecedented, bipartisan commitment to ensuring that all students, regardless of their background, receive a quality education. To reach this goal, NCLB focused federal education programs on the principles of stronger accountability for results,

more choices for parents and students, greater flexibility for states and school districts, and the use of research-based instructional methods.

(www.ed.gov/nclb).

In essence, the NCLBA has promised the American people a better educational system by calling for implementation of an educational blueprint consistency of the following seven performance based titles.

- I. Improving the academic performance of disadvantaged students
- II. Boosting teacher quality
- III. Moving limited English proficient students to English fluency
- IV. Promoting informed parental choices and innovative programs
- V. Encouraging safe schools for the 21st Century
- VI. Increasing funding for Impact Aid
- VII. Encouraging freedom and accountability (www.whitehouse.org/nclb).

To decrease the achievement gap among Limited English Proficient, (LEP) students, one of the top priorities of the NCLBA targeted special populations. As stated in NCLB legislation:

No Child Left Behind focuses on improved achievement for all students, including subgroups for race/ethnicity, socioeconomic status, English language learners and students with disabilities. The law requires that the performance of all student groups is disaggregated, reported and factored into adequate yearly progress results (www.ed.gov).

Accountability has also played a key role in NCLB legislation. As noted in the following statement, school districts are required to report assessment data to state officials according to Education Commission of the States...

...the NCLBA expands state requirements for reporting on school quality, states receiving Title 1 funding must prepare and disseminate annual report cards that, among other items, must include: disaggregate achievement information by subgroups, graduation rates for high school students, and teacher qualifications. (www.ed.gov/nclb).

To assure implementation of NCLBA mandates, federal funds have been allocated to state departments of education. These flow-thru funds are then appropriated to school districts which follow NCLBA guidelines and are the most in need. Helping states, school districts, and schools meet the challenge of successfully implementing NCLBA remains one of President Bush's highest priorities. The 2006 budget request would provide increased investments in core federal elementary and secondary education programs (www.ed.gov/nclb).

Commemorating the signing of NCLBA four years earlier, U.S. Secretary of Education Margaret Spellings on January 9, 2006 stated:

"The fourth anniversary of the No Child Left Behind Act, signed into law by President Bush on January 8, 2002, is a time to boldly look ahead, confident that we can solve any educational challenge we face. Four years ago our nation said it would no longer accept a public school system that educated only a portion of its children. Americans said schools should be held accountable for results and

students should learn through proven methods. Parents were given more choices, states more flexibility and schools 40 percent more resources.

Although there has been much controversy about the longevity of President Bush and his dedication of monies to Reading First in Education Government February 2006.

President Bush's 2007 budget request demonstrated his continued commitment to education, with dramatic funding increases over 2001 for key education programs, including:

1. 29% increase in total Federal education funding
2. 33% increase in total K-12 funding
3. 40.4% increase in total NCLB funding
4. 68.5% increase for Special Education
5. Quadrupled funding for reading from \$286 million in 2001 to \$1.2 billion in 2007 ([http.ed.gov.com](http://ed.gov.com))

Most of the goals of NCLBA have targeted elementary schools and President Bush has now focused efforts on secondary schools as noted in the following statement:

Most of the progress in education during President Bush's first term was at the elementary school level, where No Child Left Behind Act programs target most of their resources. However, in too many school districts across the nation, the longer students stay in school, the more they fall behind, with far too many students ultimately dropping out altogether. President Bush has called recent evidence of poor performance by America's high schools "a warning, and a call to action." We have ample evidence that our high schools are not adequately preparing students to compete in the workforce or succeed in the pursuit of higher

education. For every 100 17-year-olds, only 72 high school diplomas are awarded each year. For every 100 young adults, only 27 will have graduated with a four-year college degree. The ratios for minority students are even lower. For example, for every 100 black 17-year-olds, only 64 diplomas are awarded, and among 100 black adults, only 15 get a college diploma. The president's proposal includes over \$350 million for high school programs, including;

1. A \$175 million increase to expand research-based reading programs.
2. A \$120 million for Secondary Education Mathematics initiative.
3. A \$22 million increase for Advanced Placement program expansion.
4. A \$12 million for State Scholars Capacity Building.
5. A \$22.5 million increase for the National Assessment of Educational Progress to implement assessments in reading and mathematics at the 12th grade in 2007. ([http.ed.gov](http://ed.gov))

Summary

The review of selected literature presented in chapter 2 supported the following themes:

1. A special student population comprising approximately ninety percent of native Spanish speaking students has generated the need to implement the Reading First initiative in the WSD.
2. Best practices in reading have focused on five components: comprehension; vocabulary; fluency; phonics; and phonemic awareness.
3. The NCLBA reflected an unprecedented, commitment to ensuring that all students, regardless of their background receive a quality education.

CHAPTER 3

Methodology and Treatment of Data

Introduction

The purpose of this experimental research project was to determine whether students who transition into English reading in first grade would perform better on the Dynamic Indicators of Basic Early Literacy Skills (DIBELS) in third grade. To accomplish this purpose, a review of selected literature was conducted, related baseline data were obtained and analyzed, and conclusions and recommendations were formulated.

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

Methodology

The researcher used an experimental research methodology in which at least one independent variable was manipulated, other relevant variables were controlled, and the effect on one or more dependent variables was observed. A *t*-test for independent samples was utilized for data analysis to determine significance between the control and experimental groups. Both groups were administered a pre-test and each group received a different treatment. Both groups were post-tested at the end of the study. The research was conducted during the 2005-2006 school year using students that were enrolled in third grade classrooms.

Participants

The participants involved in the study were third grade students from Saddle Mountain Intermediate School during the 2005-2006 academic year. All students were native Spanish speakers who were taught in their native language in Kindergarten. The following year, when the students were first graders, eight of them were taught in the native language while the other eight were transitioned to English language classrooms.

Instruments

The Dynamic Indicators of Basic Early Literacy Skills (DIBELS) testing was implemented and used to assess student performance. The DIBELS test has been designed to measure the oral reading fluency of students. This test provides valuable feedback to school districts and teachers needed to refine instructional approaches.

Design

This experimental study utilized a two-group pre-and post-test to measure the extent to which students' scores in oral reading fluency showed improvement. The design involved two independent pre and post-test groups (i.e. experimental and control groups). Only the experimental group received instruction in English rather than their native Spanish language in first grade. For purposes of this study, participating students were organized into two groups as follows:

Experimental Group X: This group included 8 third grade native Spanish speaking students from the Wahluke School District. These students received Spanish instruction in both kindergarten and first grade. These students were then tested in third grade using the DIBELS assessment.

Control Group Y: This group included 8 third grade native Spanish speaking students from WSD. These students received Spanish instruction in kindergarten, these students then transitioned to English instruction in first grade. These students were then tested in third grade using the DIBELS assessment.

Procedure

The procedure employed in the study involved in several stages. In November, 2005, the researcher explained the need for the study to the Saddle Mountain Intermediate School Reading Coach and obtained permission to work with the project. The researcher was then able to access student test data essential for the study. The researcher then undertook a review of selected literature using Proquest and Internet as primary sources. During fall semester, 2005, the researcher interviewed Mrs. Molitor a veteran educator who described how the reading program had evolved in the Wahluke School District. Data used in the study were compiled and analyzed and conclusions and recommendations were formulated as presented in Chapters 4 and 5.

Treatment of the 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 and Airasian, 2003), allowed the researcher to compare grade-levels of oral reading fluency of experimental and control groups. Significance was determined for $p \geq$ at 0.05, 0.01, and 0.001 levels.

To test the null hypothesis, which would indicate no significance difference in English instruction in first grade, a *t*-test for independent samples was again performed. The following formula was used to test for significance.

$$t = \frac{\bar{X}_1 - \bar{X}_2}{s}$$

Summary

Chapter 3 provided a description of the research methodology employed in the study, participants, instruments used, research design, and procedure utilized. Details concerning treatment of the data obtained and analyzed were also presented.

CHAPTER 4

Analysis of the Data

Introduction

Chapter 4 was organized to include the following: description of the environment; hypothesis, null hypothesis; results of the study; findings; and, summary.

Description of the Environment

The study was conducted in the Wahluke School District at Saddle Mountain Intermediate School, during the 2005-2006 school years. The study involved two groups of monolingual, Spanish speaking, kindergarten and first grade students. Group X (i.e., experimental group, eight students) received Spanish instruction in both kindergarten and first grade. Group Y (i.e., control group, eight students), received English instruction. The study sought to determine whether students who received English instruction in first grade will perform better in the DIBELS assessment.

Hypothesis/Research Questions

Students who receive instruction in both Spanish and English in both Kindergarten and grade one will perform better on DIBEL'S then students who receive instruction only in Spanish in Kindergarten and grade one.

Null Hypothesis

Students who receive instruction in both Spanish and English in both Kindergarten and grade one will not perform better on DIBEL'S then students who receive instruction only in Spanish in Kindergarten and grade one. Significance was determined for $p \geq$ at 0.05, 0.01, and 0.001 levels.

Results of the Study

A *t*-test was calculated to determine the level of significance between control and experimental groups. Table 1 disclosed the results of the *t*-test while Table 2 represented the distribution of *t* with 14 degrees of freedom. Significance was determined for $p \geq$ at 0.05, 0.01, and 0.001 levels.

Table 1.

Summary of *t*-Test for Independent Samples

t - TEST FOR INDEPENDENT SAMPLES		
Statistic	Values	Group X
No. of Scores in Group X	8	98
Sum of Scores in Group X	703.0000	59
Mean of Group X	87.88	134
Sum of Squared Scores in Group X	67129.00	115
SS of Group X	5352.88	55
No. of Scores in Group Y	8	94
Sum of Scores in Group Y	629.0000	73
Mean of Group Y	78.63	74
Sum of Squared Scores in Group Y	54151.00	
SS of Group Y	4695.88	
t - Value	0.69	
Degrees of freedom	14	

Group X

Group Y

Enter Score

Calculate

Clear Scores

Print

Enter Score

Group X

Group Y

OK

DONE

Main Menu

Table 1. showed 16, 8 scores for group X (experimental) and 8 scores for group Y (control).

The mean of group X was 87.88, while the mean of group Y was 78.63. The degrees of freedom was at 14 and the *t* value was 0.69. The values used to determine significance were published in the textbook Educational Research: Competencies and Applications (Gay & Airasian, 2003, pg. 455). Table 2 represented the *t* value with 7 degrees of freedom used in the study.

Table 2.

Distribution of *t* with 14 Degrees of Freedom

Distribution of <i>t</i> with 14 Degrees of Freedom			
	Freedom		
	p		
df	0.05	0.01	0.001
14	2.145	2.977	4.140

Findings

Data obtained were used to compare first grade students who received instruction in Native Spanish and first grade students who received instruction in English during the 2005-2006 school year. The results did not demonstrate an increase mean when the students received instruction in English in first grade. Through statistical analysis, it was determined there was no significant differences between control and treatment groups at all levels of $p \geq$ at 0.05 (2.145), 0.01 (2.977), and 0.001 (4.140). The null hypothesis was therefore accepted at all levels of $p \geq$ at 0.05 (2.145), 0.01 (2.977), and 0.001 (4.140) levels.

Summary

Chapter 4 reviewed and detailed the description of the environment, hypothesis, null hypothesis, results of the study, and major findings. Data analyzed indicated:

1. The hypothesis was not supported (i.e., Students that were taught in English in first grade are not more likely to perform better on the DIBELS test than students who received instruction in Native Spanish).
2. The null hypothesis was accepted (i.e., There was no significant difference in the scores of students who received instruction in English as compared to students who received their instruction in Native Spanish).
3. The fundamental research questions on which the study focused indicated that students who received instruction in Spanish in Kindergarten and first grade before transitioning into English reading classroom in grade one, did not receive higher DIBELS reading scores than students who transitioned into English reading classes after receiving instruction in both Spanish and English in Kindergarten and grade one.

CHAPTER 5

Summary, Conclusions, and Recommendations

Summary

The purpose of this experimental research project was to determine whether students who transitioned into English reading in the first grade had higher DIBELS scores than student who continued in Spanish instruction. To accomplish this purpose, a review of selected literature was conducted, related baseline data were obtained and analyzed, and conclusions and recommendations were formulated.

Conclusions

From research findings and an analysis of data produced by this experimental study, the following conclusions were reached:

1. A special student population comprising approximately ninety percent of native Spanish speaking students has generated the need to implement the Reading First initiative in the WSD.
2. Best practices in reading have focused on five components: comprehension; vocabulary; fluency; phonics; and phonemic awareness.
3. The NCLBA reflected an unprecedented, commitment to ensuring that all students, regardless of their background receive quality education.
4. The hypothesis was not supported (i.e., students that were instructed in English in first grade are not likely to perform better on the DIBEL'S than students who were instructed in Spanish in first grade).
5. The null hypothesis was accepted (i.e., there will be no significant difference in the scores of students who were instructed in first grade in English).

6. The fundamental research questions on which the study focused indicated that students who received instruction in Spanish in Kindergarten and first grade before transitioning into English reading classrooms in grade one, did not receive higher DIBELS reading scores than students who transitioned into English reading classes after receiving instruction in both Spanish and English in Kindergarten and grade one.

Recommendations

1. To provide special language assistance for approximately ninety percent of native Spanish speaking students in the WSD, implementing the Reading First initiative should be ongoing.
2. To focus on five essential reading skills, reading instructors should emphasize best practices of: comprehension, vocabulary, fluency, phonemic awareness, and phonics.
3. To ensure that all students receive quality education school districts should comply with the NCLBA mandate.
4. Based on the findings of the present study, it was recommended that further research be taken, involving a larger sample of participating students.
5. Educators seeking information related to the improvement of reading ability of ESL students may wish to utilize information presented in this study or, they may wish to conduct further research suited to their unique needs.

References

Spellings, Margaret.() How No Child Left Behind Benefits Hispanics. Retrieved in November 25, 2005 from <http://www.ed.gov/nclb/accountability/achieve/nclb-hisp.html>

United States Department of Education, Office of the Secretary. (2005). Nation's Report Card Shows Continued Progress – Hispanic Students Achievement Gap Continues to Narrow as Student Population Becomes More Diverse. Retrieved November 25, 2005 from <http://www.ed.gov/nclb/accountability/achieve/report-card-hisp.html>

United States Department of Education, Office of the Secretary. (2005). Questions and Answers on No Child Left Behind – Reading. Retrieved November 25, 2005 from <http://www.ed.gov/nclb/methods/reading/reading.html>

The White House: <http://www.whitehouse.org>

Miller, W. (2002). Wahluke School District Manual.

National Reading Panel (2000). National Reading Panel Releases Report On Research-Based Approaches to Reading. Retrieved November 26, 2005 from http://www.nationalreadingpanel.org/Press/press_rel_4_13_00.htm

Calderon, Margaret (2000). Transfer or Reading Skills from Spanish to English: A Study of Young Learners. *Center for Applied Linguistics*.

Hudson, R.F. & Smith, S.W. (2001). Effective Reading Instruction for Struggling Spanish – Speaking Readers: A Combination of Two Literatures. *Intervention in School and Clinic*, vol. 37 (1), pp. 36 – 39.