

FACULTY APPROVAL

Using Dual Language Instruction to Improve Fourth Grade WASL Reading

Scores of Native Spanish Speakers

Approved for the Faculty

_____, Faculty Advisor

_____, Date

ABSTRACT

The purpose of this project was to determine the extent to which WASL reading scores of participating fourth grade students improved following a one year program of dual language instruction. To accomplish this purpose, a review of selected literature was conducted. Additionally, essential baseline data were obtained and analyzed. Data supported the position that fourth grade native Spanish speakers who received dual language instruction daily, for one (1) year, evidenced improvement in their passing rate with regards to WASL reading scores. Unfortunately, the statistical analysis did not support the hypothesis.

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CHAPTER 1

Introduction

Background for the Project

The concept of a common underlying proficiency helps explain why English language learners do better in school when some of their instruction is in their native language. If students enter school speaking a language other than English and if all their instruction is in English, they won't understand the teacher and will fall behind. In contrast, as Krashen (1996) notes, students in bilingual programs can learn academic content and develop the skills needed for problem solving and higher-order thinking in their first language while they become proficient in English. (Freeman & Freeman, 2006, p. 10)

As emphasized above by Freeman and Freeman, if English language learners do not understand instruction provided in English, they will not learn. These authorities suggested providing instruction in the students' first language to acquire knowledge of academic content while they master the English Language.

Two-way bilingual or dual language instruction was developed to help second-language learners gain proficiency in the English language while mastering academic content in the student's native language. Ovardo (as cited in Freeman & Freeman, 2006) described the benefits of dual language instruction as follows:

Another form of dual language program that works well is the 50-50 model, in which half of the instructional time is in English and half of the instructional time is in the minority language for grades K through 12. In both the 90-10 and the 50-50 models, maintaining separation of languages is an important principle, and the appropriate percentage of instruction in each language is carefully planned. (p. 42)

The above authorities and their statements have provided the context for using dual language instruction to help bilingual students achieve success in literacy, which was the focus of the present study.

Statement of the Problem

The researcher, a veteran elementary teacher specializing in dual language instruction had observed that his English Language Learner (ELL) students needed special language assistance to perform well on the reading component of the Washington Assessment of Student Learning (WASL). Accordingly, after providing dual language instruction for these students throughout the 4th grade, the researcher obtained and analyzed the students' WASL reading scores to measure possible improvement.

Motivation for undertaking the present study evolved primarily from the researcher's ongoing observation of native Spanish-speakers lack of success in reading. This caused the author to conclude that in order for these native Spanish speakers to be successful on the reading portion of the WASL, they would need to be taught in their native language, in a manner consistent with the dual language instructional model. With this in mind, the author undertook the study during the

2008-2009 school year, using data to measure possible improvement in student WASL scores. The study also sought to promote corresponding improvement in student literacy and to validate the effectiveness of the dual language instruction model used in the researcher's classroom.

Purpose of the Project

The purpose of this experimental research study (one-group pretest-posttest design) was to determine the extent to which WASL reading scores of participating fourth grade students improved following a one year program of dual language instruction. To accomplish this purpose, a review of selected literature was conducted. Additionally, essential baseline data were obtained and analyzed from which related conclusions and recommendations were formulated.

Phrased as a question, the problem which represented the focus of the present study may be stated as follows: To what extent did WASL reading scores of participating 4th grade students improve following a one-year program of dual language instruction?

Delimitations

Evergreen Elementary School (EES), located in Shelton, Washington, had 500 students in grades pre-kindergarten to fifth grade. Approximately 40% of the students were native Spanish speakers learning English as a second language. Almost all of the remaining students were native English speakers learning Spanish as a second language. Evergreen Elementary was considered a magnet school in the Shelton School District for second language acquisition.

The Shelton School District is located 35 minutes northwest of Olympia, Washington in the shores of Oakland Bay at the southern most tip of the Puget Sound. The city of Shelton is located in Mason County and has 8,735 residents. The local economy is built around mountain fresh Evergreen products and the logging and shellfish industry.

Assumptions

A basic assumption was made that dual language instruction would improve WASL reading scores for participating fourth grade native Spanish speakers. A further assumption was made that a sample of seventeen students from 2007-2008 would provide baseline data essential for validating effectiveness of dual language instruction. Finally, it was assumed that participating students gave their best effort when completing the reading portion of the WASL. In addition, it was assumed that the WASL was a valid measure of reading ability.

Research Hypothesis

Fourth grade native Spanish speakers who received dual language instruction daily, for one (1) year, will evidence improvement in their WASL reading scores.

Null Hypothesis

Fourth grade native Spanish speakers who received dual language instruction daily, for one (1) year, will not evidence improvement in their WASL reading scores.

Significance of the Project

Fourth grade Latino native Spanish speakers at EES were one of the lowest performing subgroups based on their WASL reading test scores. As reading has been recognized as a vital skill fundamental to all learning, WASL scores have been used to determine success in the state of Washington's educational system. The findings of this research study could provide information needed to support development of dual language instruction programs in the Shelton School District. Finally, the research could also aid teachers and administrators when making decisions concerning instruction in bilingual education not only for Shelton, but for the state of Washington.

Procedure

The researcher obtained WASL reading scores from the 2007-2008 and 2008-2009 school year of seventeen participating native Spanish speakers. All seventeen participating native Spanish speakers were considered English Language Learners by the Shelton School District (SSD) based on the student's 2008 performance on the Washington Language Proficiency Test (WLPT-II). All participants were enrolled at Evergreen Elementary School in the Shelton School District. The population included boys and girls, all of whom were of Hispanic ethnicity.

All students received dual language instruction for their entire fourth grade of schooling. Half of the instructional time was in English and half of the instructional time was in the minority language, which in this case was Spanish.

Instruction was provided during their language arts class for approximately two (2) hours daily.

Definition of Terms

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

achievement gap. The academic difference observed between distinct student groups.

adequate yearly progress. A measure of year-to-year student achievement on the Washington Assessment of Student Learning.

basic interpersonal communication skills. The language skills needed for everyday personal and social communication.

bilingual education. Involves teaching most subjects in school using two different languages.

cognitive academic language proficiency. The language associated with native language literacy and cognitive development.

descriptive research. Research that determines and describes the way things are; involves collecting numerical data to test hypotheses or answer questions about the current subject of study.

dual language. A literacy teaching model where some of the instruction time is in English and the rest is presented in the native language.

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.

No Child Left Behind. Public law 107-110 “signed January 2002” required schools to have 100 percent proficiency among students in math and reading.

Washington Assessment of Student Learning. Assessment used in Washington State to measure performance in reading, writing, math and science.

Washington Language Proficiency Test. The WLPT-II measures basic English language skills that children need in order to do well in school.

Acronyms

AYP. Adequate Yearly Progress

BICS. Basic Interpersonal Communication Skills

CAL. Center for Applied Linguistics

CALP. Cognitive Academic Language Proficiency

EES. Evergreen Elementary School

ELL. English Language Learner

L1. Native Language

L2. Second Language

LEP. Limited English Proficient

NCLB. No Child Left Behind

NDLC. National Dual Language Consortium

OSPI. Office of the Superintendent of Public Instruction

SSD. Shelton School District

WASL. Washington Assessment of Student Learning

WLPT-II. Washington Language Proficiency Test

CHAPTER 2

Review of Selected Literature

Introduction

Several related research topics and themes emerged while conducting the review of selected literature. For example, research authorities placed great emphasis on the characteristics and challenges faced by English Language Learners which have required additional services to develop their individual potential. Additionally, the importance of meeting standards of high-stakes assessments such as the WASL has also presented different challenges for English Language Learners. Finally, the need for educators to understand special features of dual language instruction was deemed vital to the academic success of ELL students. Each of these research subtopics has been discussed in depth on the following pages. Literature primarily within the last ten (10) years was identified through an online computerized literature search of the Educational Resources Information Center (ERIC), the Internet, and Proquest.

Characteristics and Challenges of ELL Students

According to BC Education (1999), the accepted definition of an ELL student has been someone whose primary language of the home was other than English and who may therefore require additional services in order to develop his/her English skills and individual potential within the school system. Typical ELL students have come from many linguistic and cultural backgrounds and have had a wide variety of life experiences. These background attributes have often enriched the cultural life of the school and helped enhance learning for all

students. Some ELL students have been American-born who entered school having had varying degrees of exposure to the language and cultural norms of the majority of English-speaking Americans. These students may need to complement their early childhood experiences and home languages with extensive ELL support, including a variety of cultural-bridging experiences, if they are to be successful in the English-speaking school system.

BC Education (1999) also states that ELL students have immigrated to the United States with their families after having received some formal education in their home countries. In some cases, these students have learned English as a foreign language in school. Given appropriate ELL support, including cultural-bridging experiences, these students usually progressed well in their new schools, particularly if their parents supported their academic efforts and their evolving bilingualism. Some, however, arrive in the United States as refugees. These individuals may have received very little or no schooling in their home country. They may also have experienced the traumatic conditions caused by political, social, and economic upheaval. Some ELL students have often left their home country involuntarily, perhaps leaving key family members behind. In addition to ELL support, these students may need specialized counseling and literacy training in their home language. Some students who require ELL support also have special needs associated with mental challenges, physical challenges, behavioral difficulties, and/or giftedness.

BC Education (1999) affirms individual circumstances and personal responses have varied, students who have newly arrived in the United States have

typically experienced some form of culture shock. Culture shock has been a normal stage in the acculturation process that all newcomers go through. Being in a strange place and losing the power to communicate can disrupt a person's world view, self-identity, and systems of thinking, acting and feeling. ELL students have felt frustrated, angry, hostile, sad, lonely and homesick. These students may develop physical ailments such as stomach aches, headaches and are often devastated by the emotional upheaval caused by moving to a new culture. Some may exhibit behavior such as depression or sleeplessness. They may become overly aggressive or withdrawn. Law and Eckes (1990) testify new arrivals have usually progressed through four stages of adjustment as detailed below:

1. The Honeymoon Stage: This stage takes place when people first arrived and has been characterized by extreme happiness, even euphoria. This is especially prevalent with refugees who have finally arrived safely in North America. For them, this is truly "the land of milk and honey." (p.58)

2. The Hostility Stage: After about four to six months, reality sets in, and students know a bit about getting around and have begun learning the ropes. This new place is not like their home; they can't get the food they are accustomed to; things don't look the same; they miss the life of their home country; and, the absence of the familiar places and faces and ways of doing things add to the frustration. Gradually they begin to feel that they hate America and want to go back to their home country no matter how bad things were there. This stage has been characterized by complaining, wanting to be with others who speak their

language, rejecting anything associated with the new culture, feeling depressed, irritable, angry and having headaches or feeling tired all the time. (p.58)

3. The Humor Stage: Gradually these students work toward resolutions of their feelings, and their senses of being torn between the new and the old. They begin to accept their new home. They begin to find friends, discover that there are good things about where they are living, and adjust to their lives by coming to terms with both the old and the new ways of living. This is a long process, fraught with feelings of great anxiety, because accepting the new means rejecting the old. (p.58)

4. The Home Stage: Finally, students become “native” in the sense that where they live has become their home and they accept the fact they are here to stay. This last stage may be years in coming, and for some will never take place. (p.58)

According to language researcher Krashen (1981), most new learners of English passed through a "silent period," characterized by an inability to communicate orally, even though much may be understood of what is going on around them. These individuals were not comfortable speaking in the new language, because it was difficult to express their thoughts orally. Students in this silent period should not be forced to speak before they are ready. They need time to listen to others talk to digest what they hear and to observe their fellow classmates' interactions with each other. Because they have been silent, does not

mean they were not learning the language. Haynes (2005) described challenges faced by ELL students as follows:

English language learners face many obstacles when reading literature in English. Most literature is culture bound. We expect students to have prior knowledge of literary genres such as fairy tales, myths, legends, and tall tales. If the teacher has not activated prior knowledge or built background information, knowing the vocabulary will not solve the problem. ELLs may be able to read the words but it doesn't mean they will understand the text. They are not aware of information that the author left unsaid; the information that "everyone knows". (p.1)

According to Haynes (2005), other specific challenges that ELL students faced when learning to read material in English included an abundance of idioms and figurative language in English texts, density of unfamiliar vocabulary, using homonyms and synonyms, grammar usage, word order, sentence structure and syntax, difficult text structure with a topic sentence, supporting details and conclusions, and unfamiliarity with the connotative and denotative meanings of words. Other challenges Haynes stated were that ELL students may not have practiced expressing an opinion about text, use of regional dialects, fear of participation and interaction with mainstream students, story themes and endings, literary terms for story development, lack of familiarity with drawing conclusions, analyzing characters and predicting outcomes and imagery and symbolism in text are all very difficult.

Dual Language Programs

Krashen (1987) has explained how an affective filter may cause an ELL student to put up a wall of resistance if his/her anxiety level is high. The lower the anxiety level, the lower the filter. ELL students must have a low affective filter in order to learn English. The more comfortable students are in their school environment, the more ready they will be to learn. Dual language programs can provide one way to lower the affective filter and reduce the anxiety level of ELL students.

According to Gomez (2001), dual language programs have differed from transitional bilingual programs. Transitional bilingual programs sought to transition students out of their native language and, in the United States, into English as quickly as possible, usually in three years. This was sometimes referred to as subtractive bilingualism since the first language was typically lost as English was acquired. Dual language programs were adopted to promote additive bilingualism. (p.1) Meaning the students' primary language was developed and maintained as a second language was added. Gomez (2001) stated the following:

Transitional models of bilingual education, by their very definition, deny access to an equal educational opportunity for limited English proficient (LEP) students. These models too often rush LEP students into mainstream all English classrooms while not preparing them for the demanding cognitive rigor that accompany them. A student lacking strong native language cognitive development is often times left in a “no- man’s” land, having both the first language (L1) and the second language (L2)

underdeveloped. The student cannot academically function in his or her L1, much less the L2. Furthermore, transitional bilingual education (TBE) models fail to address the need for true educational reform for effectively educating all students that is fair and ensures equal educational opportunity. Empowering models of education such as two-way bilingual programs can positively impact students' educational attainment and promote long-lasting educational and social change. (p. 1-2)

Thomas and Collier (2002) described how dual language programs have proven successful for LEP populations while providing dynamic models for enhancing student performance in school. For example, in the Houston Independent School District, students attending the two-way dual language classes achieved above grade level in Grades 1-5, both in Spanish and in English, following the same students longitudinally for the years 1996-2000, as measured by the norm referenced tests Stanford 9 and Aprenda 2. This was true for Spanish-speaking students who were classified as English learners, as well as for English-speaking students. Other school districts experienced similar achievement levels in dual language classes with students continuing on or above grade level throughout the middle and high school years. What proved particularly significant was that English learners in a dual language program outpaced native-English speakers in monolingual classes. Year after year, English learners in dual language classes gained more than one year's progress in their second language until they reached grade level in both first and second languages. Native-English speakers had the advantage of being schooled through their own language, with

nonstop cognitive and academic and sociocultural support. Their language and identity was not threatened because English was the high status language. In spite of this advantage, English learners outperformed native-English speakers when they were schooled in a high quality enrichment program that combined their native language with English.

Thomas and Collier (2002) stated that in addition to enhanced second language acquisition, two-way bilingual classes have resolved some of the persistent sociocultural concerns that have resulted from segregated transitional bilingual classes. Often, negative perceptions have developed with classmates assuming that those students assigned to the transitional bilingual classes were those with problems. This resulted in social distancing or discrimination and prejudice expressed toward linguistically and culturally diverse students enrolled in bilingual classes. Two-way bilingual classes taught by sensitive teachers can lead to a context where students from each language group learned to respect their fellow students as valued partners in the learning process with much knowledge to teach each other.

According to Krashen (1999), children who have been provided a good education in their first language receive two benefits: knowledge and literacy. Both the knowledge developed in the first language and the literacy developed in their first language significantly helped English language development. Those with more reading competence in the first language learned to read better in the second language.

According to The National Dual Language Consortium (NDLC) (n.d.), dual language instruction has provided a form of education in which students have been taught literacy and content in two languages. The majority of dual language programs in the United States have been taught in English and Spanish, although increasing numbers of programs have used a partner language other than Spanish, such as Arabic, Chinese, French, Hawaiian, Japanese, or Korean. Dual language programs use the partner language for at least half of the instructional day in the elementary years.

The NDLC (n.d.) also showed that dual language programs have generally started in kindergarten or first grade and extended for at least five years, although many continued into middle school and high school. These programs aimed for: bilingualism, the ability to speak fluently in two languages; biliteracy, the ability to read and write in two languages; academic achievement equal to that of students in non-dual language programs; and cross-cultural competence. Most dual language programs were located in neighborhood public schools, although many were charter, magnet, or private schools. There have typically been two main variations in dual language programs. The amount of time spent in the partner language varied along with the division of languages. In a full immersion dual language program, or 90/10, the program has been taught in the partner language 90% of the time in the primary grades (usually kindergarten and first grade); and 10% in English, and gradually adjusted the ratio each year until the partner language is used 50% and English is used 50% by third or fourth grade (sometimes later if the program extends through eighth grade or beyond). Partial

immersion, or 50/50, programs teach 50% of the day in English and 50% of the day in the native language at all grade levels.

According to the Center for Applied Linguistics (CAL) (n.d.), full immersion (90/10) programs have typically initiated literacy instruction for students in kindergarten and first grade in the partner language, and added formal literacy in English in second or third grade. Students do not need to relearn how to read in English; teachers help them transfer their literacy skills from one language to the other. Other 90/10 programs separate students by native language and provide initial literacy instruction in the native language, adding second language literacy by second or third grade. In partial immersion or 50/50 programs, initial literacy instruction is either provided simultaneously in both languages to all students, or students are separated by native language in order to receive initial literacy in his or her native language.

Washington Assessment of Student Learning

According to the state of Washington's Office of Superintendent of Public Instruction (OSPI) (n.d.), in 1993 the Washington State Legislature created the Commission on Student Learning and gave it the responsibility of developing the Essential Academic Learning Requirements (EALRS) along with developing an assessment system to measure student progress. That assessment system became known as the Washington Assessment of Student Learning. Further development of the WASL became the responsibility of the Washington State Office of Superintendent of Public Instruction when the Commission on Student Learning was dissolved in 1999. The WASL was used to meet state and federal testing

requirements including that of the No Child Left Behind Act signed in January of 2002. The WASL measured student learning of skills and knowledge important to children's success in school and life. Educators used WASL results to improve teaching and to do a better job of meeting every student's academic needs. The WASL was a mix of multiple-choice, short-answer and extended-response questions. In addition to demonstrating content knowledge, students were also expected to apply their thinking skills to solve problems and explain their answers. The WASL also had no testing time limits, so students could take their time. Students in grades 3-8 and 10 took the WASL each spring in reading and math. Students also were tested in writing in grades 4, 7 and 10, and science in grades 5, 8 and 10. Students needed to show they have a certain level of skill in reading, writing and math to be eligible to graduate.

OSPI (n.d.) also stated that a student's performance on the reading, math and science WASL was reported using scale scores. Scale scores were three-digit numbers that were used to place the student into one of four levels: Advanced (Level 4), Proficient (Level 3), Basic (Level 2) and Below Basic (Level 1). A scale score of 400 was assigned to a student who had just barely met the state standard; this score is at the lower end of Level 3. Students scoring in Level 4 were said to have exceeded the state standard. Students with scores in Level 1 or Level 2 had not met standard. Students generally had to achieve a score that represented approximately 60 to 65 percent of the points possible on each test to pass. That score or above meant they had met the required standard for

proficiency in that particular subject. Results were reported for individual students, schools, districts and the state according to four performance levels defined by the State Board of Education.

All students who were English Language Learners had to participate in all WASL tests scheduled for their grades regardless of the number of years they had been in the U.S. The only exception was students who were in their first year of enrollment in U.S. schools. These students were not required to participate in reading or writing tests, but they had to take the math and science exams. In addition to participating in WASL, ELL students needed to take annually the Washington Language Proficiency Test - II (WLPT-II) in reading, writing, speaking and listening. On the 2008 fourth grade WASL, on the reading assessment, there was a large discrepancy between the Latino and Caucasian population for the state of Washington. There was also an even larger discrepancy between the ELL and Caucasian population. In reading, 46.2% of Latino students did not meet the standard while only 21.7% of Caucasian students did not meet the standard. In reading, 68.8% of ELL students did not meet the standard. The difference found between Latino, ELL and Caucasian students on the WASL demonstrated a great concern in light of the exam meeting state and federal testing requirements including that of the NCLB. Bilingual language education has become a major part of education in Washington State (OSPI, n.d.).

Beginning in the spring of 2010, the state replaced the WASL with two new tests: the Measurements of Student Progress (MSP) in grades 3-8 and the

High School Proficiency Exam (HSPE). The new state assessment will adhere to the same guidelines for ELL students as during the WASL (OSPI, n.d.).

Summary

ELL students have required additional services in order to develop their English literacy skills and individual potential within the school system. Dual language programs have provided additional services to ELL students to develop their English skills and individual potential within the school system. Educators have used WASL results to improve teaching and to do a better job of meeting every student's academic needs.

CHAPTER 3

Methodology and Treatment of Data

Introduction

The purpose of this experimental research study was to determine the extent to which WASL reading scores of participating fourth grade students improved following a one year program of dual language instruction. To accomplish this purpose, a review of selected literature was conducted. Additionally, the researcher included details concerning participants, instruments, design, procedure, treatment of the data and summary.

Methodology

The researcher for this paper followed the dual language 50/50 model. Half the day the students were taught in their first language (L1) Spanish. The subjects consisted of language arts, science and social studies. The remainder of the day the students were taught in their second language (L2) English. The subjects consisted of language arts and mathematics. This experimental research project involved collecting numerical data to test the hypothesis and to answer questions about the current subject of study.

Participants

Participants in the study included seventeen native Spanish speakers. All were considered English Language Learners by the Shelton School District based on the student's 2008 performance on the Washington Language Proficiency Test. All participants were enrolled at Evergreen Elementary School. The population included boys and girls, all of whom were of Hispanic ethnicity. There were a

total number of 10 girls and 7 boys. Their age ranged from 9 to 10 years old.

Instruments

Participating students' 2007-2008 third grade and 2008-2009 fourth grade WASL reading scores were obtained from the Shelton School District. This approach involved collecting numerical data to test the hypothesis. The students took the test in the spring. The WASL was a standardized test that measured students' achievement in reading, writing, mathematics and science. As with all standardized tests, the WASL test was administered, scored and interpreted in the same way for all students. The reading portion of the WASL consisted of a series of multiple choice questions and written answer questions. According to the state of Washington's Office of Superintendent of Public Instruction (OSPI) (2009), the idea behind standardized testing is that one can generalize from a student's performance on the test to what a student knows and is able to do in the subject area assessed by the test. It is expected that if a student does well on the test, the student also does well in the subject area as a whole. If a student tests poorly on the test, the student also does poorly in the subject area as a whole. The Washington assessment system is a system of assessment tools that took rigorous steps to ensure the validity and reliability of the WASL test.

Design

Essential baseline data was obtained for use in the present study from the participating students' third grade 2007-2008 WASL reading scores and the students' fourth grade 2008-2009 reading scores. The design used was the one-group pretest-posttest design. This design used a single group that was pretested

(2007-2008 WASL), exposed to a treatment (dual language 50/50 model) and posttested (2008-2009 WASL).

The disadvantages of this design were many because many factors were not controlled. If the students scored better on the posttest than on the pretest, it could not be assumed that the better score was due to the treatment. History (something could have happened to the students that made them perform better the second time), maturation (one year of school/developmental growth), testing/instrumentation (students could have learned something on the pretest or familiarity with the test) and statistical regression (pure luck, guessing badly by chance on multiple choice questions) were not controlled (Gay, Mills & Airasian, 2006).

Procedure

The researcher for this paper followed the dual language 50/50 model. All students received dual language instruction for their entire fourth grade of schooling. Instruction was provided during the language arts class for approximately two (2) hours daily. Half the day the students were taught in their L1 (Spanish). The subjects consisted of language arts, science and social studies. The remainder of the day the students were taught in their L2 (English). The subjects consisted of language arts and mathematics. The researcher obtained WASL reading scores from the 2007-2008 and 2008-2009 school years of the seventeen participating students.

Procedures undertaken in the present study evolved in several stages. Permission to undertake the study was obtained from Dr. Stephen Warner,

principal, Evergreen Elementary School, during summer quarter, 2008. Third grade WASL reading scores were then obtained and recorded in the fall of 2008. Students participated in Evergreen's 50/50 dual language program in the academic school year of 2008-2009. All students received dual language instruction for their entire fourth grade of schooling. Instruction was provided during their language arts class for approximately two (2) hours daily. Half the day the students were taught in their native language (Spanish). The subjects consisted of language arts, science and social studies. The remainder of the day the students were taught in their L2 (English). The subjects consisted of language arts and mathematics. Participants took the 2008-2009 fourth grade WASL reading tests in the spring of 2009. Fourth grade WASL reading scores were then obtained and recorded in the fall of 2009.

Treatment of the Data

The treatment of the data for this experimental research study was obtained using the t Test for nonindependent samples. The number of students passing the reading WASL in 2008 and the number who passed the 2009 reading WASL was also presented.

Summary

The purpose of this experimental research study was to determine the extent to which WASL reading scores of participating fourth grade students improved following a one year program of dual language instruction. Participants in the study included seventeen native Spanish speakers. The population included boys and girls, all of whom were of Hispanic ethnicity. All students received dual

language instruction for their entire fourth grade of schooling. Instruction was provided during their language arts class for approximately two (2) hours daily. The researcher obtained WASL reading scores from the 2007-2008 and 2008-2009 school year of the seventeen participating students.

CHAPTER 4

Analysis of the Data

Introduction

The researcher, a veteran elementary teacher specializing in dual language instruction had observed that English Language Learners needed special language assistance to perform well on the reading component of the Washington Assessment of Student Learning. Accordingly, after providing dual language instruction for these students throughout the 4th grade, the researcher obtained and analyzed the students' WASL reading scores to measure possible improvement.

Description of the Environment

The researcher obtained WASL reading scores from the 2007-2008 and 2008-2009 school year of seventeen participating native Spanish speakers. All seventeen participating native Spanish speakers were considered English Language Learners by the Shelton School District based on the student's 2008 performance on the Washington Language Proficiency Test. All participants were enrolled at Evergreen Elementary School. The population included boys and girls, all of whom were of Hispanic ethnicity. All students received dual language instruction for their entire fourth grade of schooling. Instruction was provided during their language arts class for approximately two (2) hours daily.

The researcher followed the dual language 50/50 model. Half the day the students were taught in their L1 (Spanish). The subjects consisted of language

arts, science and social studies. The remainder of the day the students were taught in their L2 (English). The subjects consisted of language arts and mathematics.

Hypothesis

Fourth grade native Spanish speakers who received dual language instruction daily, for one (1) year, will evidence improvement in their WASL reading scores.

Null Hypothesis

Fourth grade native Spanish speakers who received dual language instruction daily, for one (1) year, will not evidence improvement in their WASL reading scores.

Results of the Study

The results of the data for this experimental research study were obtained using the t Test for nonindependent samples. The t score for this study was $t = 1.33$, $df = 16$, probability level $2.12 = .05$. Based on the data, the null hypothesis, fourth grade native Spanish speakers who received dual language instruction daily, for one (1) year, will not evidence improvement in their WASL reading scores, was accepted (not rejected). The hypothesis, fourth grade native Spanish speakers who received dual language instruction daily, for one (1) year, will evidence improvement in their WASL reading scores, was not supported.

The data from this research showed the number of students passing the reading WASL in 2008 was 18% (3 out of the 17 students). From this same group of students, the number who passed the 2009 reading WASL was 35% (6 out of

the 17 students). This indicates educational significance, but not statistical significance.

Findings

As illustrated in Table 1, and from the resulting analysis of those data, the problem which represented the focus of the present study was answered in the affirmative.

Table 1: Summary of Evergreen ELL Students Who Passed/Improved their score on the Fourth Grade WASL in Reading

S T U D E N T	2008 WASL READING SCORE	PASSED 2008 WASL READING	2009 WASL READING SCORE	PASSED 2009 WASL READING	2009 WASL READING SCORE IMPROVEMENT
1	450	YES	400	YES	- 50
2	384	NO	377	NO	- 7
3	393	NO	400	YES	+ 7
4	400	NO	405	YES	+ 5
5	413	YES	403	YES	- 10
6	387	NO	380	NO	- 7
7	393	NO	380	NO	- 13
8	393	NO	397	NO	+4
9	384	NO	395	NO	+ 15
10	378	NO	377	NO	- 1
11	339	NO	385	NO	+ 46
12	355	NO	395	NO	+ 40
13	368	NO	385	NO	+ 17
14	406	YES	415	YES	+ 9
15	368	NO	415	YES	+ 47
16	362	NO	382	NO	+ 20
17	358	NO	369	NO	+ 11

Final WASL Reading Score Improvement (+) or (-): Indicates Improved (+) and Diminished (-) Performance on the 2009 Fourth Grade Reading WASL.

That is, when providing fourth grade native Spanish speakers with dual language instruction daily, for one (1) year, 65% of the students demonstrated improvement in their WASL reading scores.

An analysis of data presented in Table 1 has provided a convincing argument from which the researcher may conclude that fourth grade native Spanish speakers who received dual language instruction daily, for one (1) year, did evidence improvement from 18% to 35% in passing their WASL reading portion of the test.

Significantly, when comparing students' 2008 WASL reading scores with their 2009 WASL reading scores; all but six students demonstrated improvement in their WASL reading scores. Specifically, three of the students who did not pass the 2008 reading portion of the WASL, did so during the 2009 WASL.

Discussion

Based upon the preceding analysis of data, one may conclude and recommend that dual language programs be implemented to help ELL students perform well on the reading component of the Washington Assessment of Student Learning. If English language learners do not understand instruction provided in English, they will not learn. According to Krashen (1999), if students are taught Cognitive Academic Language Proficiency (CALP) skills in their first language, those CALP skills from the first language will transfer to the second language. Further, we are giving ELL students the best possible chance to improve their reading and ultimately pass the reading portion of the WASL. This writer believes that dual language programs help ELL students to best improve their reading in a

second language and also gives them the best opportunity to perform better on future high-stakes assessments used in Washington State.

Summary

Chapter 4 included discussion of the environment, hypothesis, results of the study, findings and discussion. Data supported the position that fourth grade native Spanish speakers who received dual language instruction daily, for one (1) year, evidenced improvement in their passing rate with regards to WASL reading scores.

Unfortunately, the statistical analysis did not support the hypothesis. A number of factors relevant to the study were not controlled. History and maturation were not controlled in the experimental design that was used. This compromises the conclusion that the dual language program was the major factor in the improved passing rate on the WASL.

CHAPTER 5

Summary, Conclusions and Recommendations

Summary

The purpose of this experimental research study was to determine the extent to which WASL reading scores of participating fourth grade students improved following a one year program of dual language instruction. To accomplish this purpose, a review of selected literature was conducted. Additionally, essential baseline data were obtained and analyzed from which related conclusions and recommendations were formulated.

Conclusions

From the review of selected literature presented in Chapter 2 and the analysis of data in Chapter 4, a number of conclusions were reached. First, ELL students required additional services in order to develop their English literacy skills to increase individual potential within the school system. Secondly, dual language programs have provided additional services to ELL students to develop their English skills and individual potential within the school system. Thirdly, educators have used WASL results to improve teaching and to do a better job of meeting every student's academic needs.

The hypothesis that fourth grade native Spanish speakers who received dual language instruction daily, for one (1) year, would evidence improvement in their WASL reading scores was answered in the affirmative. That is, when providing fourth grade native Spanish speakers with dual language instruction

daily, for one (1) year, 65% of the students demonstrated improvement in their WASL reading scores.

Unfortunately, a number of factors relevant to the study were not controlled. The participants did significantly better on the 2009 reading WASL than on the 2008 reading WASL with regard to obtaining a passing score. However, history and maturation were not controlled using a one-group pretest-posttest design.

Recommendations

Based on the conclusions cited above, the following recommendations have been suggested. First, to develop ELL students' English literacy skills and individual potential within the school system, public schools should provide additional services. Secondly, educators should develop English skills to provide for strong cognitive and academic language proficiency in students' first and second language. Thirdly, dual language programs should be provided as additional services to ELL students.

Educators responsible for ELL students' development should skillfully exploit WASL results or other future high-stakes assessments in the state of Washington to improve teaching and to do a better job of meeting every student's academic needs. Schools/school districts interested in using dual language instruction to improve fourth grade WASL reading scores of Native Spanish Speakers, may wish to utilize information contained in the present study or, they may wish to undertake research more suited to their unique needs.

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