The Effect of Pre-Kindergarten Academy Participation and English Language Learners' Literacy Acquisition

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FALCULTY APPROVAL

The Effect of Pre-Kindergarten Academy Participation and English Language Learners’ Literacy Acquisition

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ABSTRACT

The purpose of this experimental research project was to determine whether Dynamic Indicator of Basic Early Literacy Skills (DIBELS) reading scores of ELL’s who attended PKA exceeded those of ELL’s who did not attend. To accomplish this purpose, a review of selected literature was conducted, essential baseline data were obtained and analyzed, and related conclusions and recommendations were formulated.

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CHAPTER 1

Introduction

Background for the Project

> The United States becomes more ethnically and linguistically diverse every year. More than 90 percent of new residents come from non-English-speaking countries. The number of students with non-English-speaking backgrounds represents the fastest growing group of this population. In the last decade, the total student enrollment in public schools increased by only 14 percent, while the number of English learners grew 70 percent and is projected to grow even more. The 2000 census identified 20 percent of school-aged children as non-native English speakers (Herrell and Jordan, 2004, p.1X.)

As alluded to in the above statement, today's teachers are faced with enormous challenges in the classroom and must meet the needs of an increasingly diverse

population each year, while being judged by standardized test scores achieved by their students.

The No Child Left Behind Act of 2001 (NCLB), has further impacted the field of education, especially with regard to closing the achievement gap of ethnic minority students, particularly English Language Learners (ELL's). Early identification of children, specifically those identified as ELL's, at-risk for academic success and implementing an effective pre-kindergarten academy can overcome the barrier of the achievement gap by not only preparing students for overall school readiness, but also providing focused and targeted literacy intervention instruction.

Statement of the Problem

A study of current student demographics in the Yakima School District (YSD) revealed approximately 75 percent of students enrolled were of Hispanic ethnicity, and the majority of whom reading below grade level. Among this population large numbers were identified as ELL's, whose native language was Spanish. In view of these findings, language

instruction specific to reading literacy was needed to close the achievement gap.

The need to address this problem in the primary grades was of particular importance. Accordingly, YSD administrators made the determination to implement a Pre-Kindergarten Academy program (PKA) to improve reading skills at the kindergarten grade level.

Phrased as a question, the problem which represented the focus of the present study may be stated as follows: Did reading scores of ELL's students enrolled in PKA as measured by the DIBEL assessment, exceed those of ELL students not enrolled in the PKA?

Purpose of the Project

The purpose of this experimental research project was to determine whether Dynamic Indicator of Basic Early Literacy Skills (DIBELS) reading scores of ELL's who attended PKA exceeded those of ELL'swho did not attend. To accomplish this purpose, a review of selected literature was conducted, essential baseline

data were obtained and analyzed, and related conclusions and recommendations were formulated.

Delimitations

The present study included students who participated in the YSD's 2005 Pre-Kindergarten Academy (PKA) at Whitney Elementary. The writer (Rachel L. Gonzalez-Garza), specifically utilized data collected from the DIBELS assessment during the 2005-2006 school year. The literacy program taught during the PKA incorporated the Road to the Code phonics program.

The study utilized the following experimental and control groups:

Experimental group (X): Seven ELL's who participated in the PKA.

Control group (Y): Seven randomly selected ELL students who did not participate in the PKA.

Assumptions

The researcher (Rachel L. Gonzalez-Garza), made the basic assumption that ELL students who participated in the PKA would achieve higher reading

scores on the DIBELS assessment when compared with ELL students who did not participate in PKA. A further assumption was made that the researcher, a certified teacher, possessing training specific to the Road to the Code phonics program was qualified to provide instruction essential to the study.

Hypothesis

English Language Learning students who participated in the PKA will achieve higher scores on the DIBELS assessment than their ELL peers who do not attend PKA.

Null Hypothesis

English Language Learning students who participated in the PKA will show no significant difference in DIBELS assessment scores based on the participation in the PKA. Significance was determined for $p>$ at 0.005, 0.01, and 0.001 levels.

Significance of the Project

Research conducted by Slaby, Loucks, & Stellwagon (2005) evidenced that regular attendance in a preschool program lessoned the performance gap for

minority students. Preschool programs also established a foundation for children's subsequent school success by imparting basic knowledge related to, e.g., colors, shapes, numbers, how to get along with classmates, how to live by the rules in school, and an emphasis on explicit early literacy instruction. Thus, ELL's, that attended the YSD's Pre-Kindergarten Academy, were better prepared to achieve school readiness goals set by the DIBELS assessment, which would positively influence their literacy skills at the start of kindergarten.

Procedure

Procedures employed in the present study evolved several stages including:

1. The PKA which provided a basis for the present study was established at Whitney Elementary during the summer of 2005.
2. The researcher, the sole teacher for the PKA at Whitney, implemented the program during June and July 2005. The Road to the Code phonics program was utilized as the instructional

model, along with essential kindergarten skills and knowledge related to e.g. colors, shapes, numbers, how to get along with classmates, and how to live by the rules in school.

3. During August 2005, students who participated in the researcher’s PKA at Whitney Elementary were identified.
4. In September 2005, experimental and control groups for the present study were identified and pre-tested, using the DIBELS assessment.
5. Experimental and control groups were post-tested in May, 2006.
6. Essential data were obtained and analyzed throughout 2006 which provided information needed to formulate related conclusions and recommendations.

Definition of Terms

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

ELL's. English Language Learning students whose first language is not English.

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.

PKA. Pre-Kindergarten Academy a program to prepare incoming kindergarten students for school in the Fall.

t-test. Inferential statistics technique used to determine whether the means of two data groups are significantly different from one another.

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

Road to the Code Phonics. Phonics based program that introduces letter names and sounds.

Acronyms

ECERS. Early Childhood Environmental Rating Scale

ELL's. English Language Learners

ESEA. Elementary and Secondary Education Act

NCBL. No Child Left Behind

NCTM. National Council of Teachers of Mathematics

PKA. Pre-Kindergarten Acasdemy

PMVT. Primary Measures of Vocabulary Test

WJ. Woodcock Johnson

YSD. Yakima School District

CHAPTER 2

Review of Selected Literature

Introduction

The review literature and research summarized in chapter 2 has been organized to address the following topics:

- Child Development Programs and School Readiness.
- Development in Mathematics Competency and Closing the Achievement Gap.
- Benchmark Assessment.
- Promoting literacy in English Language Learning Through Brain-based Learning.
- Summary

Data currently primarily within the last 10 years were identified through an on-line computerized literature search of the Educational Resources Information Center (ERIC), the Internet and Proquest. A hand-search of related, supplemental materials was also conducted.

Child Development Programs and School Readiness

The researchers, Bryant, Taylor, Poe, Peisner-Feinberg, & Bernier (2003) affirmed, the primary goal of Smart Start was to ensure that all children entered school healthy and prepared to succeed. The approach that Smart Start has taken required local community partnerships plan how best to meet their own community's needs, improve and expand existing programs for children and families, and design and implement new programs. By legislative mandate, partnerships splurged at least 70% of their funds on childcare. Statewide, about half this amount was spent on child care subsidies for poor or working class families and about half was spent on child care quality improvement activities such as, on site technical assistance, license upgrades, and higher subsidies for families to purchase higher child care quality.

Bryant et al. (2003) further studied, the procedure used in this study which included 110 Smart Start participating centers whose directors mailed

recruitment letters to parents of all children expected to attend kindergarten in the fall of 2002. Children whose parents consented were included in the study, up to six per classroom. In total, the researchers assessed 512 children. The average length of time children had attended their center was 23 months; 57% had attended their center for over a year. The Early Childhood Environmental Rating Scale (ECERS) was the measuring tool used to assess seven general areas: Personal care routines; furnishings and how arranged for children; language-reasoning experiences; fine and gross motor activities; creative activities; social development; and adult needs. Scores on each of the 37 items can range from one to seven, with the overall mean score used as a global measure of quality of childcare.

A score of five on the ECERS was considered good and a seven was excellent. Researchers often used five as a threshold for high quality. For round one, the percentage of centers scoring five or above increased steadily from 1994 to 2002. For Rounds three and

four, the percentage of centers in the highest category in 1999 was about the same as in 1996, but a large increase was present in by 2002. With the child care quality data in hand, researchers gathered data related to children's skills and abilities through use of the primary measures of vocabulary test (PMVT) and the Woodcock Johnson (WJ) standardized tests to measure outcomes for school readiness. Three developmental domains were targeted: Language and literacy; numeracy; and social emotional development. Within these domains a total of eleven child outcomes were identified with a predicted score of about 100 for the average child. The average child in this study scored below the national average on the PMVT and numeracy (WJ Applied Math). However, the average child knew the rote skills of counting and naming letters fairly well. In the social development domain, children in this sample scored at the national average on positive social behaviors (Bryant, et al.).

In sum, Bryant, et al. arrived at two conclusions:

1. Since 1994, childcare quality in the sample of North Carolina childcare centers had steadily and significantly improved over time.
2. Children that attended higher quality centers, which participated in Smart Start, scored significantly higher on measures of skills and abilities that were important in school success, compared to children from lower quality centers.

The North Carolina results confirmed that higher quality preschool classrooms were positively associated with children's knowledge and skills for school readiness. Smart Start appeared to be effective in improving childcare quality and children's outcomes (Bryant et al.).

Lamy, Barnett, & Jung (2005) found that effective preschool programs provided a foundation for children's subsequent school success by imparting such educational basics as: Colors, shapes, numbers, letters, how to look at a book, how to get along with classmates, and how to live by the rules in school.

Overall, South Carolina ranked fourth in the nation based on program accessibility, resources, and quality.

The participants in a case study conducted by Lamy et al. (2005) were categorized in two student groups. One group currently attending kindergarten, who also attended the state-funded preschool program the previous year, was called the Preschool or experimental group. The second group currently attending the state-funded preschool program, was called the No Preschool or control group. According to these authorities, the effect of state-funded preschool on children's print awareness scores was statistically significant for South Carolina's program. South Carolina's preschool program increased children's print awareness scores by 18.9 percentage points, an improvement of 71 percent of a standard deviation on the print awareness subtest.

The researchers established, that the study's findings provided evidence confirming: (1)the positive impact of South Carolina's state-funded preschool

program on children’s language and literacy skill development; and (2)that South Carolina’s programs produced the kinds of effects that lead to increased school success and later improvements in children’s reading skills (Lamy et al.).

Development in Mathematics Competency and Closing the Achievement Gap

Vanderhevden, Broussard, Fabre, Stanley, Legendre, & Creppel (2004) referenced five principles considered essential for effective mathematics instruction, by the National Council of Teachers of Mathematics (NCTM). These included:

1. Equity as a primary characteristic of effective math instruction.
2. Skill targeted curriculum sequenced across the schooling years.
3. Adequate teacher preparation and skill competency concerning children’s learning needs and how to support student skill mastery.

4. A learning approach that provides instruction in important skills and practice in problem-solving or skill application.
5. Instructionally meaningful assessment integrated with the instructional program to guide teaching and to optimize learning focused on the development of mathematics competence.

In addition, Vanderheyden, et al. discovered, effective instruction, meaningful assessment, and teachers who were adequately prepared to support the mastery of identified important skills were key elements essential for developing mathematics competence. In addition, these researchers concluded the benefits of early intervention in developing mathematic skills remained firmly established.

Slaby, et al., credited a recent survey of 2,314 California children, which identified a significant gap in kindergarten mathematics readiness between affluent and middle class children. The survey report concluded that the performance gap for minority students would be lessened with regular attendance in

a preschool program. In addition, the researchers noted, for children to be proficient in mathematics by 2014 as required by the No Child Left Behind Act, all children needed to enter kindergarten ready to learn. A high quality kindergarten program has been acknowledged as the best investment for improving achievement. These researchers found a high quality program consisted of:

1. Sufficient time.
2. Precise targeting.
3. Thoughtful focus.
4. Accountability for results.

Slaby el al., also referenced a program designed for 4-year-old students in the Salinas, California, City School District. The mission of the school district was to: Prepare 4-year olds for kindergarten by having them know school routines, letter names, their name, numbers, colors, and how to play with others. In a five-year time span, eight elementary schools added preschool programs, which operated 180 days a year with morning and afternoon sessions. Despite their

poverty level, preschoolers exceeded No Child Left Behind benchmarks. All second and third graders were administered the California State Standards Test. Twenty-four percent of students who attended preschool scored average and above in English/Language Arts compared to 10 percent of students who had not attended preschool. The same was true for mathematics. Fifty percent of students who had been preschoolers scored average and above compared to 34 percent of non-preschoolers. These authorities concluded, while the achievement gap was difficult to close and many external and internal, factors were involved, a structured preschool program offered one of the best ways to help close that gap.

Benchmark Assessments

The National Reading Council produced a comprehensive report on the nation's reading achievement status and found that children of color and those raised in poverty continually documented at risk for academic failure. Jenkins, Miranda, & Rock (2004) found when children begin to transition from

learning to read to reading to learn, those who had difficulty reading have a harder time exploring and comprehending science, literature, history, mathematics and other core academic subjects. Additionally, Jenkins et al. stated, poor skills in reading are associated with poverty, unemployment, and dropping out of high school, which were all predictive of a hardship future.

The researchers indicated class size and teacher quality as risk factors for reading difficulties. Teachers in schools with a high ethnic minority enrollment and/or high percentage of students eligible for free or reduced lunch were less likely to have master's degrees than teachers in schools with low ethnic minority enrollment and or low percentage of students eligible for free or reduced-price lunch.

Jenkins et al., cited DIBELS as a set of tasks designed to assess fundamental reading skills through the use of seven assessment measures:

1. Letter-naming fluency
2. Initial sound fluency

3. Phoneme segmentation fluency
4. Nonsense Word fluency
5. Oral reading fluency
6. Story retell (optional)
7. Word use fluency (optional)

Jenkins et al. further stated, DIBELS enabled educators to efficiently identify students who require additional reading intervention. The general assessment was completed three times per year: fall, winter, and spring terms.

Participants in the study conducted by the researchers Jenkins, Miranda, and Rock (2004) were two kindergarten classrooms in a large urban elementary school in the Midwest. The DIBELS assessment was administered to these participants three times during the school year. Students were selected based on two criteria:

1. If they were identified as at-risk by their performance on the fall administration of the DIBELS.

2. Parent or legal guardian provided written consent for their child to participate in the intervention study.

Two boys and three girls met these criteria and made up the intervention sub-sample. The remaining two students, both girls, served as the control group. The intervention was conducted for 16 weeks (e.g., from mid January to mid-May). Group 1, consisted of three students, the intervention was implemented twice a week. For group 2, which consisted of two students, the intervention was implemented three times per week. Each intervention session was 30 minutes in length. The two students in the control group received no special intervention; however, all the kindergarten children participated in an extra reading assistance program.

Data results in this study indicated that three of the five students who received intervention met benchmark in the winter term. While the other two students made progress and were very close to benchmark; it would be expected that they would

continue to make progress and achieve benchmark by spring.

Brain-Based Learning in English Language Acquisition

What could educators do to unlock the bilingual mind for literacy? To begin, interactive teaching elements emerge from the core principles directing brain-based learning. These interactive teaching elements have enhance learning in the classroom in three ways.

1. Orchestrated immersion.
2. Relaxed alertness.
3. Active processing (Spears & Wilson, 2005).

These three interactive teaching elements played a similar environmental role. For example, students bring a variety of experiences and shades of differing perspectives to school. These culturally, linguistically, and ethically diverse backgrounds and experiences have provided a powerful opportunity for everyone to learn more through research-based innovative methods and in new stimulating classroom environments. Hunter, (1982), described how Meaning

has been identified as one of the most important propellants of learning. However, true meaning exists in the interrelationships of each students' past knowledge and experience. In the school setting, brain-based learning suggests meaningful learning to happen in authentic contexts.

Figure 1 displayed the relationship of present learning to past experience and to future learning. The Figure has provided an outline depicting the importance of connecting past knowledge with present learning to future situations. The role of past learning, or prior knowledge, was vital to the learner to assimilate into new learning, or it may not be accepted. The teacher must be the cohesive glue that connects teaching from previous lessons to present lessons so that ELL's can cross over and link the information (Jensen, 2006).

FIGURE 1. Increasing Instructional Effectiveness in Elementary, Secondary Schools.

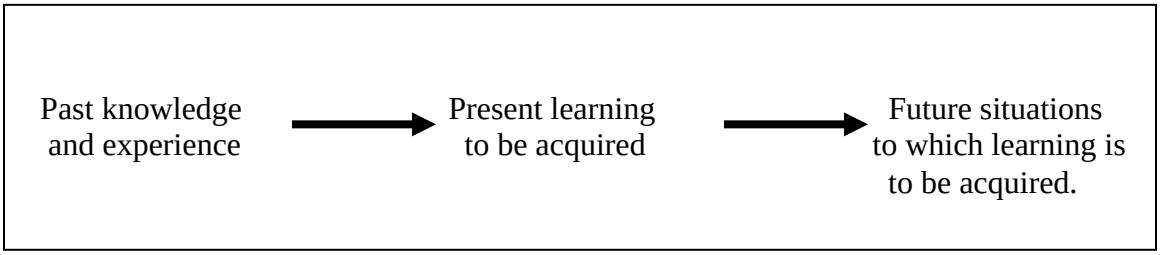

FIG. 1. Source From "Mastery Teaching," By Hunter, M., (1982, p.51). Increasing Instructional Effectiveness in Elementary, Secondary Schools. El Segundo, CA: TIP Publications

Figure 2, illustrated the relationship between the cognitive, linguistic, socio-cultural, and developmental dimensions in the literacy events that an individual acts upon (Kucer, 2005). Another important objective of brain-based learning was to develop a sense of deeper meaning as opposed to surface meaning. Through the occurrence of literacy events in all the developmental dimensions, an individual can then elicit deep meaning (Jensen, 1996).

FIGURE 2. Curricular Conversations: Themes in Multilingual and Monolingual Classrooms

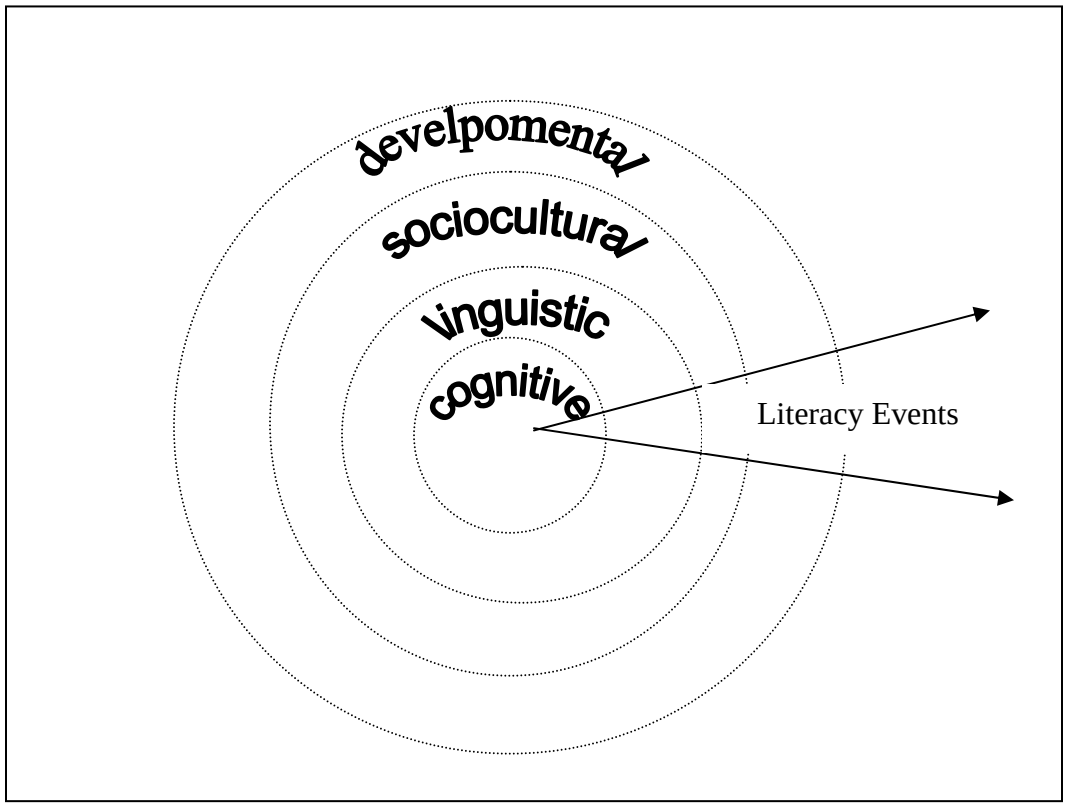

FIG. 2. From "Dimensions of literacy," By Kucer, S. B., Silva, C., & Delgado-Larocco, E. (1995). Curricular Conversations: Themes in Multilingual and Monolingual Classrooms (p. 59). York, ME: Stenhouse.

Summary

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

1. Preparing all students for academic success through effective childcare centers, preschools, or prekindergarten academies was considered essential for school readiness.
2. Early intervention with skill-targeted instruction in mathematics has helped to overcome achievement gap barriers.
3. Skill targeted benchmark assessments such as the DIBELS, provided a jumpstart to literacy intervention instruction.
4. The influence of brain-based research on English Language Acquisition has facilitated a rich learning experience and for second language learners, while providing a framework for optimal literacy learning.

Chapter 3

Methodology and Treatment of Data

Introduction

The purpose of this experimental research project was to compare whether Dynamic Indicator of Basic Early Literacy Skills (DIBELS) reading scores of ELL's who attended PKA exceeded those of ELL's who did not attend. To accomplish this purpose, a review of selected literature was conducted, essential baseline data were obtained and analyzed, and related 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 data, and summary.

Methodology

The researcher utilized a *t*-test for independent samples to assess the effectiveness of the Yakima School District's Pre-Kindergarten Academy to improve reading scores of participating students. The DIBELS

reading assessment provided essential baseline data needed to formulate related conclusions and recommendations. This test determined whether the means of two independent samples were significantly different. Significance was determined for p≥ at 0.005, 0.01, and 0.001 levels.

Participants

The present study included students who participated in the YSD's 2005 Pre-Kindergarten Academy (PKA) at Whitney Elementary. For purposes of this study, participants were organized into the following experimental and control groups:

Experimental group (X): Seven ELL students who participated in PKA.

Control group (Y): Seven randomly selected ELL students who did not attend PKA.

Instruments

In September 2005, experimental and control groups for the present study were identified and pre-tested, using the DIBELS assessment. Experimental and control groups were post tested in May, 2006.

Essential DIBELS baseline data were obtained and analyzed throughout the 2006 school year.

Design

This experimental research design, utilized a *t*-test for independent samples to determine whether the means of two data groups were significantly different. This involved pre and post testing two groups of students as follows:

Experimental group (X): Seven ELL students who participated in PKA.

Control group (Y): Seven randomly selected ELL students who did not attend PKA

Procedure

Procedures employed in the present study evolved several stages including:

1. The PKA which provided a basis for the present study was established at Whitney Elementary during the summer of 2005.
2. The investigator, Rachel L. Gonzalez-Garza, the sole teacher for the PKA at Whitney, implemented the program during June and July

2005. The Road to the Code phonics program was utilized as the instructional model, along with essential kindergarten skills and knowledge related to e.g. colors, shapes, numbers, how to get along with classmates, and how to live by the rules in school.

3. During August 2005, students who participated in the researcher's PKA at Whitney Elementary were identified.
4. In September 2005, experimental and control groups for the present study were identified and pre-tested, using the DIBELS assessment.
5. Experimental and control groups were post-tested in May, 2006.
6. Essential data were obtained and analyzed throughout 2006 which provided information needed to formulate related conclusions and recommendations.

Treatment of the Data

The researcher gathered statistical data for use in conducting the study in September 2005 and again in May 2006. Data were then analyzed using the STATPAK statistical software, a data analysis program which accompanied Educational Research: Competencies for Analysis and Application (Gay & Airasian, 2003). The researcher performed two separate *t*-tests to assess the hypothesis and null hypothesis. The first *t*-test performed was to determine significance in the experimental group. The second *t*-test performed was to determine significance in the control group. The following formula was used to test for significance:

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

A study of current student demographics in the Yakima School District (YSD) revealed approximately 75 percent of students enrolled were of Hispanic ethnicity, and the majority of whom reading below grade level. Among this population large numbers were identified as ELL's, whose native language was Spanish. In view of these findings, language instruction specific to reading literacy was needed to close the achievement gap.

The need to address this problem in the primary grades was of particular importance. Accordingly, YSD administrators made the determination to implement a Pre-Kindergarten Academy program (PKA) to improve reading skills at the kindergarten grade level.

Chapter 4 has been organized to include: An introduction, description of the environment, hypothesis, null hypothesis, findings, and summary.

Description of the Environment

The present study included students who participated in the YSD's 2005 Pre-Kindergarten Academy (PKA) at Whitney Elementary. The writer (Rachel L. Gonzalez-Garza), specifically utilized data collected from the DIBELS assessment during the 2005-2006 school year. The literacy program taught during the PKA incorporated the Road to the Code phonics program.

The study utilized the following experimental and control groups:

Experimental group (X). Seven ELL students who participated in the PKA.

Control group (Y): Seven randomly selected ELL students who did not participate in the PKA.

Hypothesis

English Language Learning students who participated in the PKA will achieve higher scores on the DIBELS assessment than their ELL peers who do not attend PKA.

Null Hypothesis

English Language Learning students who participated in the PKA will show no significant difference in DIBELS assessment scores based on the participation in the PKA. Significance was determined for p> at 0.005, 0.01, and 0.001 levels.

Results of the Study—tables 1 and 2

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 using the DIBELS reading scores while Table 2 represented the distribution of *t* with 12 degrees of freedom. Significance was determined for p> at 0.05, 0.01, and 0.001 levels.

Table 1.

t-test for Independent Samples--September 2005 DIBELS scores

As indicated in Table 1, the mean of group X was 6.14, while the mean of group Y was 6.43. The degree of freedom was 12 and the t-value was –0.09. The values used to determine significance were published in the textbook Educational Research: Competencies and Applications (Gay & Airasian, 2006, pg. 349).

Table 2

Distribution of t with 12 degrees of Freedom--

September 2005 DIBELS scores

Distribution of *t* with 12 Degrees of Freedom

	0.05	0.01	0.001
t-value	-0.09	-0.09	-0.09
df	2.179	3.055	4.318

Because of these findings the following can be said:

	0.05	0.01	0.001
Null Hyp.	Accepted	Accepted	Accepted
Hypothesis	Not supported	Not supported	Not supported

Findings-- September 2005 DIBELS scores

Data presented in Tables 1 and 2 were used to compare ELL students who attended PKA with ELL students who did not attend PKA. Results indicated that mean scores of students who attended PKA (i.e. 6.14) than the mean score for students in group Y (i.e.6.43). Through statistical analysis, it was

determined there was not significant differences between treatment and control groups at the level of p≥ 0.05 (2.179). All other levels (0.01 and 0.001) showed no significance.

Table 3 indicated the results of the *t*-test using May 2006 DIBELS scores while Table 4 represented the distribution of *t* with 12 degrees of freedom.

Table 3

Summary of *t*-test for Independent Samples for May 2006 DIBELS scores

The mean of group X was 58.29, while the mean of group Y was 45.00. The degrees of freedom at 12 and the t-value was 1.35.

Table 4

Distribution of t with 12 degrees of Freedom—May 2006 DIBELS scores

Distribution of t with 12 Degrees of Freedom

	0.05	0.01	0.001
t-value	1.35	1.35	1.35
df	2.179	2.179	2.179

Because of these findings the following can be said:

	0.05	0.01	0.001
Null Hyp.	Accepted	Accepted	Accepted
Hypothesis	Not supported	Not supported	Not supported

Findings-- May 2006 DIBELS scores

Data obtained were used to compare the ELL students who attended PKA with Ell students who did not attend PKA. The results did not demonstrate a difference in the mean in students that had attended PKA. Through statistical analysis, it was determined there was no significant differences between treatment and control groups at all levels of $p \geq 0.05(2.79)$, 0.01 (3.055) and 0.001(4.318) 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 September 2005 DIBELS hypothesis was not supported at $p \geq 0.05$ level. This meant that the ELL students who participated in the PKA performed similarly as their ELL peers that did not attend PKA.
2. The May 2006 DIBELS hypothesis was not supported which meant there was no significant difference

in the DIBELS assessment between the ELL PKA students and the ELL non-PKA students.

3. The null hypothesis was accepted regarding the PKA DIBELS scores (i.e. There was no significant difference in the scores of ELL students who attended PKA as compared to ELL students who did not attend PKA).
4. The fundamental research question on which the study focused indicated that ELL students who attended the Yakima School District Pre-Kindergarten Summer School Academy program scored similarly on the DIBELS to their ELL non attending PKA peers. When the ELL PKA students are given the opportunity to learn in a small group/class setting with strategic phonemic awareness skill instruction, the students caught up to their ELL non-PKA attending peers and scored correspondingly alike on the DIBELS through the 2005-2006 school year.

Chapter 5

Summary, Conclusions and Recommendations

Summary

The purpose of this experimental research project was to determine whether Dynamic Indicator of Basic Early Literacy Skills (DIBELS) reading scores of ELL's who attended PKA exceeded those of ELL's who did not attend. To accomplish this purpose, a review of selected literature was conducted, essential baseline data were obtained and analyzed, and related conclusions and recommendations were formulated.

Conclusions

Based on the review of selected literature and major findings produced from the present study, the following conclusions were reached:

1. Child development programs and school readiness is dependent upon effective preschool programs that provide a foundation for children's subsequent school success.

2. Development in mathematics competency and closing the achievement gap was dependent upon meaningful assessment integrated with the instructional program to guide teaching and to optimize student learning.
3. DIBELS assessment allowed educators to efficiently identify students who require additional reading intervention to reach the goal of benchmark mastery.
4. Three interactive teaching elements emerge from the core principles directing brain-based learning ultimately promoting literacy in English language learning and English language acquisition.

Recommendations

As a result of the conclusions cited above, the following recommendations have been suggested:

1. To prepare all students for academic success through effective childcare centers, preschools, and/or PreKindergarten academies.

2. To provide early intervention with skill-targeted instruction in the academic subject areas of literacy and mathematics.
3. To provide a jumpstart to literacy intervention instruction with skill targeted benchmark assessments such as the DIBELS.
4. To provide a framework for optimal literacy learning on English Language Acquisition through the teaching practices of brain-based research.

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