

IMPLICATIONS FOR DUAL LANGUAGE ADMINISTRATIVE  
LEADERSHIP: A COMPARISON OF THE ENGLISH READING ACHIEVEMENT  
OF THIRD GRADE STUDENTS AMONG THREE INSTRUCTIONAL PROGRAMS  
IN A RURAL SCHOOL DISTRICT

A Dissertation

by

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## ABSTRACT

This quantitative study is derived from a need to know how the leadership can support the teachers in a Two Way Dual Language (TWDL) program and a need of a comparative analysis to compare the English reading Texas Assessment of Knowledge and Skills (TAKS) scores achievement of Spanish and English speakers in third grade enrolled in a Two Way Dual Language (TWDL), Bilingual Transitional (BT) program and an English-only (EO) instructional program in a rural district.

A comparative analysis was conducted for the following comparisons: (a) compare the TAKS reading scores of native speaker of Spanish in a Two Way Dual Language program to native speaker of Spanish in a Bilingual Transitional program (b) compare the English TAKS reading scores of native speakers of Spanish (NSOS) in a Two Way Dual Language program to native speakers of English (NSOE) in an English-only program (c) compare the English TAKS reading scores of native speaker of English in a Two Way Dual Language program to native speaker of English in an English-only program (d) compare English TAKS reading scores of native speaker of English to the native speaker of Spanish in a Two Way Dual Language program.

The research indicates that English TAKS scores of native speaker of English in the Dual Language program had a higher score than those English reading TAKS scores of native speaker of English in the English-only program. The English reading TAKS scores of native speaker of Spanish in the Dual Language Program indicated no evidence for the difference in the English reading scores between the native speakers of English in

the English-only program. Also, the English reading TAKS scores of native speaker of English in the Dual Language program had higher English reading TAKS scores than native speaker of Spanish in the Dual Language Program. The participants consisted of 205 students: 46 native speakers of Spanish (NSOS) and 162 native speakers of English (NSOE).

## DEDICATION

I dedicate this dissertation to my Lord, Jesus Christ; to my dad, Martin Hernandez Sr. who now enjoys eternity in God's presence and my mom, Maria del Socorro Hernandez; my god-parents, Salvador and Leonor Rodarte; to my children, Veronica T. Cook and Victor Isaac Trejo; my brothers, Juan Jose Hernandez and Martin Hernandez Jr.; and my sweet sister, Carolina H. Martinez. This dissertation is also dedicated to all who prayed and supported me through this journey. Lastly, I dedicate this dissertation to my grandchildren, Alicia Rose Cook and Benjamin Wilde Cook, may their days be as joyful and full of love, as the joyful and loving days they give me.

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## CHAPTER I

### INTRODUCTION

The United States becomes more ethnically and linguistically diverse in population each year, particularly the Hispanic population. The U.S. Census Bureau (2012) projections show that the Hispanic population would more than double, from 53.3 million in 2012 to 128.8 million in 2060. Consequently, by the end of the period, nearly one in three U.S. residents would be Hispanic, up from about one in six today.

This is a massive projected increase in the Hispanic population representation. According to Passel and Cohn (2008), by 2050, the non-Hispanic White population will increase more slowly than other racial and ethnic groups. Therefore, Whites are predicted to represent the minority group at 47%. Passel and Cohn (2008) conveyed that most of the predicted increase in population from 2005 to 2050 will be due to new immigrants and their U.S.-born descendants. They will account for 82% of the nation's population growth, which represents 117 million more people by 2050 (Passel & Cohn, 2008).

In the 2011 American Community Survey (U.S. Census Bureau, 2011), it was indicated that 13% of the population was foreign born, and an estimated of 20.6 % of those individuals spoke a language other than English. Of the foreign-born individuals, 51.5% reported not speaking English very well, and the U.S. Census Bureau (2011) classified this group as limited in English proficiency. This increased majority of the population has affected schools. For instance, the total school enrollment was close to 49.5 million, but out of this enrollment, there were 5.3 million identified as English language learners. Therefore, 11% of the students in United States schools were English

learners. The 5.3 million students did not include the students who had passed their English language proficiency test but were still grappling with academic English (NCELA, 2011).

Data from the National Clearinghouse for English Language Acquisition (NCELA, 2011) showed that from the 1998-1999 school year through the 2008-2009 school year, the number of identified students with limited English proficiency in public schools kindergarten through twelfth grade increased 51%, while the total native English pre-kindergarten through twelfth grade population increased by only 7.2 %. Such a dramatic increase continually challenges educators to provide effective language programs with quality instruction for students who are culturally and linguistically diverse.

According to Aguirre-Baeza (2001) Two Way Dual Language schools are a possible solution to the growing LEP population. Aguirre-Baeza (2001) state that “educational leaders have to promote true bilingualism that includes biliteracy. A successful Dual Language program must have successful leadership. Consequently, bilingual education advocates have to continue to insist that knowing how to speak one language is not good enough” (Aguirre-Baeza, 2001).

According to The Condition of Education (2011) White students at twelfth grade scored 27 points higher in reading than Black students and 22 points higher than Hispanic students. Similarly, white students at fourth grade scored 25 points higher in reading than the Hispanic students. Unfortunately, the achievement gap among the White population and the Hispanic population is still wide. Clearly, the goal today is still

to close this achievement gap according to secretary Arne Duncan who encourages educators to close the achievement gap, so that all students can graduate from high school and succeed in college and careers U. S. Department of Education (2010).

In his 2012 speech, The U.S. Secretary of Education, Arne Duncan, again remarked that students not only confront an achievement gap, but they also confront an opportunity gap that is unacceptably wide as stated in the U. S. Department of Education Speech, (2012). Through years of research, Thomas and Collier (2004) suggested that Dual Language programs may lead to grade-level and above-grade-level achievement in mastering a second language and possibly help to close the gap (Thomas & Collier, 2004).

Viewing at possible bilingual education settings, it is appropriate to consider The Texas Education Code §89.1205 (1996) classified four bilingual education programs:

- *Transitional bilingual/early exit*: a bilingual program that serves students identified as students of limited English proficiency in both English and Spanish and transfers a student to English-only instruction not earlier than two or later than five years after the student enrolls in school;
- *Transitional bilingual/late exit*: a bilingual program that serves students identified as students of limited English proficiency in both English and Spanish and transfers a student to English-only instruction not earlier than six or later than seven years after the student enrolls in school;
- *Dual Language immersion/Two Way*: a biliteracy program that integrates students proficient in English and students identified as students of limited

English proficiency in both English and Spanish and transfers a student identified as a student of limited English proficiency to English-only instruction not earlier than six or later than seven years after the student enrolls in school; or

- *Dual Language immersion/one-way*: a biliteracy program that serves only students identified as students of limited English proficiency in both English and Spanish and transfers a student to English-only instruction not earlier than six or later than seven years after the student enrolls in school.

The Center for Applied Linguistics (2012) has collected data and monitored the growth of Two Way programs in United States since 1991 through the *Directory of Two Way Immersion Programs in the U. S.*, which lists 422 programs in 31 states, and the District of Columbia. This directory lists Two Way immersion (TWI) programs in United States that serve students in pre-K through twelfth grade (Center for Applied Linguistics, 2012).

Dual Language programs strive to develop bilingualism and biliteracy skills in all students, language minority and language majority alike (Torres-Guzman, 2002). Y. Freeman, Freeman, and Mercuri (2005) explained that Dual Language programs were given a variety of names such as: Dual Language education (DLE); developmental bilingual education (DBE); Two Way Bilingual Education (TWBE); immersion (TWI); dual immersion (DI) or enriched education (EE). Freeman, et al. (2005) further stated that DL programs included common characteristics:

- students include native English-speakers;

- students are integrated during most content instruction;
- instruction is provided in two languages;
- students become proficient in two languages; and
- students' achievement in English for all students is equal to or exceeds that of students learning in English-only (p. xiv).

Christian (1996) informs that “It is important to note that this educational approach does not emphasize language development over academic and social development; the goal is to balance development in all three areas” (p. 67). Researchers, Lindholm-Leary, 2001 and Thomas & Collier, 2002 in the fields of bilingual and Dual Language education indicated that academic achievement is very high for both language minority and language majority students participating in a Two Way Dual Language program when compared to students receiving English instruction only (Lindholm-Leary, 2001; Thomas & Collier, 2002). The Center for Applied Linguistics (CAL, 2012) suggested that nationally, the 50/50 model is the most frequently reported of Dual Language programs (Lara-Alecio, Galloway, Irby, Rodriguez, & Gomez, 2004). The Center for Applied Linguistics (2012) directory showed that about 75% of DL programs were situated in the early elementary grades while 25% continued in secondary grades.

A report prepared by Lara-Alecio et al. (2004) indicated that overall, 53 of the campuses' DL programs receive federal funding with an average award of \$498, 874 over a three to five year period. The significant federal support for DL programs contributes to the growth of DL models in Texas and calls into question the sustainability of these programs should an alternate funding source not be found.

Leadership is key to successful program implementation and maintenance (Alanis & Rodriguez, 2008; Lindholm-Leary, 2001; Aguirre-Baeza, 2001), especially with program implementations that require a radical shift from the school community's traditional educational philosophies. Dual Language programs require a different support system than previous ESL and bilingual education programming (Gomez, 2006). This research proposes that Dual Language program implementation is a second-order change. Cuban defines a second-order changes as changes that “introduce new goals, structures, and roles that transform familiar ways of doing things into new ways of solving persistent problems” (p. 342).

This research identifies Dual Language program implementation as a second-order change based on the program's goal of biliteracy, as well as the requirements of continuous professional development, parent training, program maintenance, school-wide and community-wide buy-in and support (Howard, Sugarman, Christian, Lindholm-Leary & Rogers, 2007; Lindholm-Leary, 2005). Rosa Molina, former Assistant Superintendent in California, confirms that —this shift, however natural it might seem, requires extensive training in and understanding of the principles of second language acquisition, even among experienced practitioners (as cited in Cloud, Genesee, & Hamayan, 2009, p. 81). This study considers the claim that such reform requires strong leadership for the program to be successful, specifically principal leadership.

### *Statement of the Problem*

In 2011, the Texas Education Agency (TEA, 2010) reported that there were 830,795 English language learners (ELLs) representing 16.9% of the entire student population enrolled in public schools in the 2010-2011 school year. Therefore TEA, (2010), endorses the fact that the ELLs have increased in large numbers in our schools.

Fifteen years ago, Riley (2000), former Secretary of Education, challenged educators to provide a quality education for Hispanics. Riley considered the nation's largest minority group of students to be educated in the public schools. He informed the public that bilingual programs were working well in many states toward the goal of bi-literacy, and they will continue to work well if set clear performance measures and resources are provided to meet the rising demand (Riley, 2000).

According to Thomas and Collier (2002), enrichment 90/10 and 50/50 one-way and Two Way developmental bilingual education (or Dual Language, bilingual immersion) were the only programs to date that assisted bilingual students to reach the 50th percentile in both the first and the second language in all subjects. Thomas & Collier, 2002 and Linholm-Leary, 2001 reported that academic achievement is very high for both language minority and language majority students participating in the program when compared to students receiving English instruction only (Lindholm-Leary 2001; Thomas & Collier, 2002).

During the 2005-2006 school year, a suburban rural district in Texas began its fourth year of a Two Way Dual Language program funded through a Rural Comprehensive School Grant launched in 2001. After four years of the Dual Language

program, data was needed to communicate the results of the students' English reading academic achievement in the Two Way Dual Language program as compared to other district's educational programs. TWDL comparative studies have been conducted for urban districts (Lindholm-Leary 2001; Thomas & Collier, 2002); however, comparative TWDL studies are needed for rural districts because this area of study is under-researched. This rural district did not have a comparative analysis of the different programs for English Language Learners, and the administrators needed additional information to support the teachers in a Two Way Dual Language program. Alanis & Rodriguez (2008) found in their case study that teachers must adjust their philosophy, their teaching strategies and their view of English Learners. "As teachers shift their beliefs about second language acquisition to one of enrichment versus one of remediation, the entire focus of the curriculum begins to shift as well... This cannot happen without an administrator who understands the nature of bilingualism and the importance of advocacy for teachers, students, and biliteracy" (p.316). Therefore, without strong leadership from the administrator, the Dual Language program may fail to close the problematic achievement gap as intended.

### *Purpose of the Study*

Elmore (2003) proposed that principals are working hard enough, but their success or failure relies more on where they choose to focus their efforts. Principals are struggling to identify their role in leading a Two Way Dual Language program, when it is perceived as a bilingual education department initiative. Additionally, Dual Language



programs are being compromised in exchange for easier bilingual or ESL programming that offer quicker results (Collier & Thomas, 2009):

Principals perform the role of gatekeeper to a new program (Fullan, 2001). If a principal fails to view Dual Language programs as a second-order change then the gate of program understanding begins to close and the program will lose effectiveness.

Without strong leadership fad cycle tendencies will dominate, including flawed understanding of the Dual Language program.

The purpose of this study is to build on the knowledge of the success of Dual Language programs and provide fundamental leadership knowledge for principals who administer Dual Language programs. This study informs administrators of implications for Dual Language administrative leadership and also compares the reading achievement of third grade Spanish and English students enrolled in a Two Way Dual Language program, a transitional bilingual program, and an English-only instructional program.

### *Research Questions*

This study was guided by the following research questions:

1. To what extent do native speaker of Spanish reading TAKS scores differ based on their participation in either a Two Way Dual Language program or a transitional bilingual program?
2. To what extent do native speaker of Spanish reading TAKS scores differ based on their participation in a Two Way Dual Language program compared to English speakers in an English-only program?

3. To what extent do native speaker of English reading TAKS scores differ based on their participation in either a Two Way Dual Language program or an English-only program?
4. Is there a significant difference between English reading scores of native speaker of English and native speaker of Spanish (ELLs) who have participated in a Two Way Dual Language program?

### *Significance of the Study*

According to the U. S. Census Bureau (2011), the Hispanic population increased by 15.2 million between 2000 and 2010, accounting for over half of the 27.3 million increase in the total population of the United States. Changes in demographics drive schools to examine alternative programs for intervention (Ovando & Collier, 1998).

Research continues to suggest that Dual Language programs offer the best education for ELLs. This research study is based on evidence that reveals that Dual Language programs may offer English Language learners the best chance to close the achievement gap with their native-English speaking peers (Thomas & Collier, 1997).

This dissertation research is needed for several reasons: (a) to identify the administrator's responsibilities that are crucial to the sustainability of a Two Way Dual Language program. The findings of this study have possible implications for a deeper knowledge of how to support administrators as leaders of Dual Language programs. It also deepens the knowledge of districts in choosing what type of bilingual programs to implement to improve the reading achievement of students, and (b) to inform parents

and community members of ELLs who want to enroll their children in Dual Language programs. This comparative analysis will further provide a strong confirmation for the administrators and the community to know what is the best bilingual program for their students in the achievement of English reading. Administrators and the community need have a deeper comprehension and knowledge of how students acquire a second language, and to know how to support the Dual Language programs that are being implemented.

### *Operational Definitions*

The findings of this study are to be reviewed within the context of the following definitions of operational terminology:

#### **Academic Language**

Academic Language can be defined as the language used to read, write, listen, and speak in content classes, to perform academic tasks, and demonstrate knowledge of the subject standards (Echevarria, Vogt, & Short, 2013).

#### **English Immersion**

"English language learners who are placed in all English-only classrooms with teachers who are trained to teach second language learners" (Y. Freeman, et al., 2005, p. 15).

**English Language Learners (ELLs)**

An active learner of the English language who may benefit from various types of language support programs. This term is used mainly in the United States to describe K-12 students (National Council of Teachers of English, 2008).

**ESL Pullout**

"English language learners are placed in all English-only classrooms and are pulled out during the instructional day for additional instruction using ESL methods" (Y. Freeman et al., 2005, p. 15).

**Limited English Proficient (LEP)**

A student whose primary language is a language other than English and whose English language skills are such that the student has difficulty performing ordinary class work in English (Texas Education Code §29.052, 1995).

**Maintenance or Late Exit Bilingual Education**

"English language learners receive instruction in both the first or native language for four to six years. They are later transitioned into English instruction" (Y. Freeman et al., 2005, p. 16).

**Native Speaker of English (NSOE)**

"Native speaker of English is a student whose first or dominant language is English. In this study, language proficiency was determined by a home language survey" (Y. Freeman et al., 2005, p. 40).

### **Native Speaker of Spanish (NSOS)**

"Native speaker of Spanish is a student whose first or dominant language is Spanish. In this study, language proficiency was determined by a home language survey" (Y. Freeman et al., 2005, p. 40).

### **Structured English Immersion**

"English language learners are placed in all English classrooms and do not receive special services" (Y. Freeman et al., 2005, p. 15).

### **Texas Assessment of Knowledge and Skills (TAKS)**

A completely revised standardized testing program implemented during the academic year of 2003-2004 across all public campuses in the State of Texas. The Texas Assessment of Knowledge and Skills (TAKS) includes a more advanced alignment with the Texas Essential Knowledge and Skills (TEKS) than any other assessment format. TAKS has been developed to better reflect good instructional practice and more accurately measure student learning (TEA, 2006a).

### **Transitional Bilingual Education / Early Exit Bilingual Education**

"English language learners receive part of their instruction in their first or native language for one to three years. They are later transitioned into English instruction" (Y. Freeman et al., 2005, p. 15).

## **Two Way Dual Language (TWDL) or Two Way Bilingual Immersion (TWBI) Program**

"English-speakers and ELLs receive instruction in the first or native language and English with the goal of bilingualism and biliteracy. For the present study, the first or native language is Spanish" (Y. Freeman et al., 2005, p. 16).

### *Delimitations*

My study was delimited to four elementary schools in a rural suburban public school district in Texas. Participants for this study were students who met the following criteria: (a) were classified as third grade students in the school records; (b) were enrolled in Grade 3 in school year 2005-2006; (c) were enrolled in either in a Two Way Dual Language, a transitional bilingual program, and English-only instructional program, and (d) students enrolled in the Two Way Dual Language program participated in the program for at least three years.

### *Limitations*

- The findings from this study may not be generalized beyond the rural district participating in the study.
- The study only investigated the English reading achievement at the end of third grade, providing information on the short-term effects of one year (only) for the three instructional language programs.

- The baseline data was not available for this study. Therefore, we have no way of knowing growth from inception.

### *Assumptions*

Findings of this study were preceded by the following assumptions:

- The Two Way Dual Language program, bilingual late-exit transitional program, and the English-only instructional program were strong and effective programs that followed strictly the school district guidelines for the third grade students.
- The instructional programs kept their fidelity over the years and had similar instructional practices and procedures, while the students had access to comparable materials and resources.
- The researcher was impartial and objective in the analyses of data.
- The English reading TAKS test was used in this study a valid measure of achievement.
- The method proposed and described offers the most logical and appropriate design for this particular research project.

## CHAPTER II

### LITERATURE REVIEW

#### *Introduction*

Bilingual education is one of the most controversial issues in U. S. public education (Baker, 2011; Baker & de Kanter, 1981; Crawford, 2008; Freeman, 2007; Gandra & Hopkins, 2010; Rossell & Baker, 1996; Rossell & Kuder, 2005). Much of the controversy has focused on how long it takes for learners to reach high levels of English proficiency and what role does the student's native language play in the instructional process (Brisk, 2006; Hayes, Rueda, Chilton, Velasco, & Pelayo, 2007; Moughamian, Rivera, & Francis, 2009; Slavin & Cheung, 2003). Researchers have also focused on demonstrating which approach works best in developing academic language literacy, either through bilingual instructional programs or English-only programs (Baker & Kanter, 1981; Cheung & Slavin, 2005; Francis, Lesaux, & August, 2006; Hakuta, Butler, & Witt, 2000; Rossell & Baker, 1996; Rossell & Kuder, 2005). Therefore, leaders in education need to be aware of how students acquire a second language and what impact various types of educational programs have on the student achievement of ELLs (Schroth, G. & Littleton, M., 2001) "The school site principal must be knowledgeable about dual language education and committed to the program" (Freeman Y. S., Freeman D. E., & Mercuri S. P., 2005 p. 76).

Therefore, the focus of this literature review involves three central points. The first point is the implications for effective educational leadership for Dual Language



programs. The second point is the methodology of two conceptual hypothesis about how ELLs acquire a second language, which are the developmental interdependence hypothesis and the threshold hypothesis. The final point is a description of various educational programs researchers have shown to be most effective for ELLs when developing literacy in an English-only (EO) program or developing literacy in two languages, such as in a Two-Way Dual Language (TWDL) program or a transitional bilingual program (BTP).

### *Dual Language Leadership*

Aguirre-Baeza (2001) states that the success of Dual Language schools depends upon the leadership of these schools. Leaders will have to be constructivists, sharing leadership responsibility with the teachers, staff, students, and community members. (Aguirre-Baeza, 2001) Alanis and Rodrigues (2008) also state that principals of Dual Language programs are responsible for not only modifying their own paradigm, but to also leading the reform on their campus (Alanis & Rodriguez, 2008).

Dual Language program leaders require a paradigm shift. Covy (1989) explains that a paradigm is a person's frame of reference for understanding issues and developing opinions. The Dual Language program's implementation requires not only a paradigm shift, but also a change in the entire school culture (Howard, Sugarman, Christian, Lindholm-Leary & Rogers, 2007). Therefore, principals' views and understanding of multiculturalism, second language acquisition processes, and the values they attribute to certain languages, come from a Two Way Dual Language education paradigm.

Educational leaders can ensure that everyone shares in the vision and goals of Two Way Dual Language schools by creating caring leadership. In shaping the school culture, administrators shape students' and teachers' thinking and action in school (Aguirre-Baeza, 2001). The campus leaders, the principals, have a huge responsibility to not only shape their paradigms in relation to the change, but to lead each school's belief and support of change (Alanis & Rodriguez, 2008).

Marzano, Waters, & McNulty (2005) conducted a meta-analysis of research on school leaders and examined the relationship between student achievement and school-level leadership. According to Waters and Cameron (2007) this research produced three major findings: (a) leadership makes a difference on student achievement; (b) leadership responsibilities and associated practices correlated with student achievement; and (c) not all strong leaders have a positive impact on student achievement. The researchers concluded there are two possible explanations of the differential impact of leadership: (1) leaders must have the "right" focus of leadership, and (2) the "differential impact of leadership" is the order of magnitude of change. Simply stated, even when principals focus on the right classroom and school practices, they must understand the implications these changes have for stakeholders and adjust their leadership behaviors accordingly. "Differential impact of leadership" might be related to a leader's understanding of their leadership initiatives as first-order and second-order change for staff and the shareholders (Waters and Cameron 2007, pgs. 3-11).

Cuban (1988) defines the two types of change: First-order change and second-order change. First-order changes aim to "improve the quality of what already existed –

what had come to be called traditional schooling - and not to alter the existing organizational structures” (p. 342). Waters and Cameron (2007) further define first-order change as a “perceived extension of the past, within existing paradigms, consistent with prevailing values and norms and implemented with existing knowledge and skills” (p. 28).

Waters and Cameron (2007) define second-order change as a “perceived break with the past, outside of existing paradigms, conflicted with prevailing values and norms, and requiring new knowledge and skills to implement.” (p.28) Second-order changes identified by Hallinger (2003) are the domain of transformational leaders – those changes that require deeper levels of commitment and collaboration, a shared vision and sense of purpose from all members of the organization. “Leadership must be conceptualized as a mutual influence process, rather than as a one-way process in which leaders influence others. Effective leaders respond to the changing needs of their context” (p. 346).

Lindholm-Leary (2001) informs that successful outcomes for the Dual Language programs “require a clear understanding of the Dual Language program and full implementation of the various characteristics associated with high quality programs.” Lindholm-Leary, (2001) recommends that instructional leadership should come from an “individual who has extensive knowledge of the language education model being implemented at the site, second language development, bilingual and immersion education theory and research, instructional methodologies, effective classroom practices, and the belief that the selected language education model can work once it is

implemented correctly” (p. 30). To implement correctly, Waters and Cameron (2007) explain that “principals must understand and accurately estimate the order of magnitude of their improvement initiatives for all stakeholders. Moreover, they must also understand the change process-that is, they must understand which leadership responsibilities to emphasize and how to emphasize them when working with stakeholders for whom the change may have different implications” (p. 29). Therefore, a Two Way Dual Language principal should have not only a first-order but, a second-order change to be effective in leading the teachers, staff and community correctly.

Waters & Cameron (2007) articulate that there are seven leadership responsibilities correlated with second-order change that have positive change:

1. Knowledge of curriculum, instruction, and assessment: the leader is knowledgeable about instructional practices and assessment practices and provides conceptual guidance for teachers regarding effective classroom practice.
2. Flexibility: the leader is comfortable with major changes in how things are done, encourages people to express opinions contrary to those with authority, adopts leadership style to needs of specific situations, and can be directive or non-directive as the situation warrants.
3. Change agent: consciously challenges the status quo, is comfortable with leading change initiatives with uncertain outcomes, and systematically considers new and better ways of doing things.

4. Ideals and beliefs: communicates and operates from strong ideals and beliefs about schooling.
5. Monitor and evaluate: monitors the effectiveness of school practices and their impact on students.
6. Intellectual stimulation: ensures teachers and staff are aware of the most current theories and practices and makes the discussion of these a regular aspect of the school's culture.
7. Optimize: inspires and leads new and challenging innovations (pgs. 32-43).

Waters and Cameron (2007) advice that while the principal emphasizes the seven responsibilities positively correlated with second-order change, the transitional team can share the following four responsibilities that need extra attention to avoid negative consequences of the second-order change:

1. Culture: help articulate a vision or picture of where the transitional team encourages positive attitudes. The team focuses on successes and interprets disappointment as opportunities for improvement. The transitional team helps clarify parts that individuals can play in successfully implementing changes.
2. Order: plan and stage ceremonial events that honor the past, clarify what is ending, and what is beginning. The transitional team develops or negotiates temporary agreements or policies to provide new structures to guide and support behavior as new norms emerge.
3. Communication: listen to concerns about clarity of the plan for change, implementation of the plan, and needed support. The transitional team

continually articulates the new direction of the organization, clarifies and simplifies, when possible, helping individuals see connections between shared values and aspirations and new direction, focusing on the relative advantage of changes to everyone involved. The transitional team highlights short-term successes to feature evidence of impact as well as learning opportunities.

4. Input: encourage and actively seek experiences of the staff with implementation. The transitional team plans and facilitates periodic study sessions to learn what is working, what is not working, and to reiterate the reasons or purpose for the change initiative (p. 43).

### *Conceptual Framework*

According to Hoy and Miskel (2001), theory is directly connected to practice because theory forms a frame of reference for the leader. As leaders go through the process of theorizing, they are provided with a general kind of analysis of daily practices. Therefore, theory guides decision making for all educational leaders (Hoy & Miskel, 2001). It is important that leaders across the country grasp the theories about how ELLs acquire a second language to obtain the necessary guidance for implementing promising practices that will better meet the academic and linguistic needs of ELLs in an effort to close the achievement gap.

## **The Developmental Interdependence Hypothesis**

The developmental interdependence hypothesis focused primarily on the concept of *language transfer* (Cummins, 1993), sometimes referred to as *cross-linguistic influence* (Odlin, 2005). Ellis (2008) defined *language transfer* as “any instance of learner data where a statistically significant correlation (or probability-based relation) is shown to exist between some feature of the target language and any other language that has been previously acquired” (p. 351). Students who are instructed in their first language (L1), develop proficiency in their first language (Cummins, 1981a). When students are provided with enough exposure to the second language (L2) and are motivated to learn it, the first language proficiency skills transfer to the second language proficiency (Freeman & Freeman, 2011). Consequently, academic knowledge, skills, literacy development, concept formation, learning strategies, and processes learned in the first language are transferred to the second language (Cummins, 1981a, 1981b, 1993). For the purposes of this study, L1 refers to the student’s native language, Spanish. The L2 refers to the student’s second language, English.

Language transfer led to an added idea called the *Common Underlying Proficiency* (CUP) model of bilingualism (Cummins, 1981a). The CUP model is pictured as two visible icebergs above an ocean surface, The CUP model of bilingualism was summarized by Baker (2011) in six parts:

1. When a person owns two or more languages, there is one integrated source of thought.

2. Bilingualism and multilingualism are possible because people have the capacity to store two or more languages.
3. Information processing skills and educational attainment may be developed through two languages.
4. The language the student uses in the classroom needs to be well developed to process the cognitive challenges of the classroom.
5. Speaking, listening, reading or writing in the first or second language helps the whole cognitive system to develop; however, if students are insufficiently developed in the second language, the system will not function at its best.
6. When one or both languages are not functioning fully, cognitive functioning and academic performance may be negatively affected. (p. 166)

Cummins (1979) also found that everyday conversational language could be acquired in two years while the more complex language needed to comprehend the curriculum could take five to seven or more years to develop. In his studies, Cummins (1979, 1981a, 1984, 2000b, 2008a) named these distinctions *Basic Interpersonal Communicative Skills* (BICS) and *Cognitive/Academic Language Proficiency* (CALP). Because of various controversies among researchers, Cummins (2008a) changed the terms to *conversational fluency* in place of BICS and *academic language proficiency* in place of CALP.

According to Baker (2011), BICS or conversational fluency, occurred in a face-to-face conversation when nonverbal clues such as gestures were used to promote the comprehension of the verbal language. This situation was referred to as *context*



*embedded*. However, CALP, or academic language proficiency, occurs when higher order thinking skills were required to comprehend academic literature. Nonverbal clues were not visible to the naked eye if only text was read without pictures. Therefore, language was not embedded from a meaningful context. This was referred to as *context reduced*. CALP was specific to the context of instruction.

### **The Threshold Hypothesis**

The second conceptual framework was Cummins (1976, 2000) threshold hypothesis. Overall, Cummins (2000) hypothesized that students needed to have a certain level of literacy in the native language to develop literacy effectively in the second language. The threshold theory was closely related to Cummins' interdependence hypothesis, explicitly in the transfer process (Baker, 2011). Students needed to acquire sufficient linguistic skills in their native language to support the transfer of linguistic skills into English (Baker, 2011; Durgunoglu, 2002). Freeman and Freeman (2011) explained that the threshold theory determines the “conditions under which transfer takes place” (p. 231). Freeman and Freeman (2011) also clarified the meaning of the word threshold as “to enter a home or a building, it is necessary to cross a threshold—that raised board below a door” (p. 231). Cummins (2000) illustrated his hypothesis by picturing students crossing the different thresholds as they acquired academic proficiency in both languages. Each threshold represented a level of language competence that might affect the cognitive development of the student (Baker, 2011; Cummins, 2000a; Freeman & Freeman, 2011).

In the first threshold level, students had BICS or conversational fluency in both languages, but they had a low level of CALP or academic proficiency in both languages (Baker, 2011; Cummins, 2000a; Freeman & Freeman, 2011). Therefore, this lack of proficiency might have negative cognitive effects because students did not have the minimum control of the language to deal with the academic demands of the classrooms (Baker, 2011). Students typically had enough language control at the social conversational level, in other words, the students had BICS, but they were lacking CALP, the rigid academic dimension of the language required to comprehend academic concepts in school (Freeman & Freeman, 2011).

In the second threshold level, students had developed age and grade-level academic proficiencies, CALP, in only one of the two languages (Baker, 2011; Cummins, 2000; Freeman & Freeman, 2011). At this level, it was unlikely for the students to have either positive or negative cognitive consequences because they were able to function academically in only one of the languages (Cummins, 2000). Therefore, Freeman and Freeman (2011) emphasized the importance of teachers assessing the students' proficiency levels constantly in both languages and not just in the students' dominant language.

In the third threshold level, students finally obtained CALP, high academic proficiency, in both languages (Freeman & Freeman, 2011). Students at this level were almost "balanced" bilinguals because they could effectively work in the academic setting of both languages (Baker, 2011; Cummins, 2000).

Cummins (2000) believed that bilingual students at the third threshold level generally outperform their monolingual counterparts academically because true bilinguals possess the cognitive advantages, CALP, of both languages. Cummins (1979) established that the development of proficiency in a second language is partly dependent on the level of proficiency already achieved in the learners' first language. Therefore, the more proficient the learners were in the first language, the easier they would develop proficiency in a second language. This dissertation originated from this hypothesis, and investigated which educational program would be more effective at increasing the English reading achievement of ELLs.

Researchers used Cummins' (1979) developmental interdependence hypothesis and the threshold hypothesis to report what specific bilingual educational practices make ELLs successful. Investigators, such as Collier and Thomas (1989), examined the effect of the first language development on second language acquisition to determine how quickly ELLs could become proficient in academic English while receiving all of their academic instruction in English. Collier and Thomas (1989) collected data from 1977 to 1987 from standardized test scores of 2,014 language minority students in fourth, sixth, and eleventh grades. Tests were first given to the students two years after they entered the United States. The students received ESL pullout instruction, and were taught only in regular classrooms. The students did not receive any content area ESL instruction. The results confirmed Cummins' (1981a) assumptions that it takes five to seven years for immigrants to reach CALP, grade-level norms in academic English.

Additionally, Collier and Thomas (1989) confirmed that cognitive-academic second language proficiency does not occur quickly, but is a developmental process that takes a significant number of years. Collier and Thomas (1989) claimed that students between the ages of eight and twelve acquire second language in a faster and more efficient way. However, the students will still take a long time to go through the developmental process. Collier and Thomas (1989) also discovered that students' length of residence in the United States, grade-level achievement, and age on arrival were other important factors to consider in defining the time it takes for ELLs to acquire academic language proficiency.

Thomas and Collier (2002) conducted another five-year national research study from 1996 to 2001 to research instructional effectiveness for language minority students. The study examined the various types of educational programs provided for English language learners for long-term academic achievement in grades K-12. The research confirmed Cummins' (1979) developmental interdependence hypothesis because Thomas and Collier (2002) reiterated that the strongest predictor for student achievement in a second language is the amount of CALP, through formal academic instruction, a student holds in the first language. The more CALP at grade-level the student possesses, the higher the academic achievement of the student in the second language. Thomas and Collier's (2002) study also revealed that ELLs who received four to five years of BICS and CALP in L1 and were taught in English-only settings in the United States scored 6 NCEs higher in English reading in eleventh grade. Students who received one to three

years of BICS and CALP in L1 and were taught in English-only settings scored lower in English reading in the eleventh grade.

Thomas and Collier's (2002) national study publicized several important points that support this study of the comparisons of various educational programs for ELLs. For instance, these researchers highlighted that Dual Language programs were the only programs found that supported students to fully reach the 50th percentile in both L1 and L2 in all subjects and to maintain that level of high achievement, or reach even higher levels.

The students achieved well above the 50th percentile in all subject areas on norm-referenced tests in English. The students also equaled or outperformed their comparison groups of students who were schooled in one language.

The native-Spanish-speakers in Two Way Dual Language (TWDL) programs outperformed native English-speakers, when tested in their native language, from first to eighth grades in reading achievement across the curriculum (Thomas & Collier, 2002). Furthermore, these students remained significantly above grade level at every grade level except sixth grade (at the 49th NCE), reaching the 64th NCE (74th percentile) in eighth grade.

In a 50/50 TWDL program, Spanish-speaking immigrants after 1 to 2 years of instruction at a school in the United States, achieved at a median of the 62nd NCE (71st percentile) in third to sixth grade. The immigrants who arrived on or above grade level, maintained on or above grade level performance in Spanish in the succeeding two years. In addition, the students in a 50/50 TWDL program who were former ELLs attending a

high-poverty, high-mobility school, met 58 % or exceeded the Oregon state standards in English reading by the end of third and fifth grades. The significant academic performance obtained by TWDL students can be explained by the threshold theory because these students were balanced bilinguals who were able to function in both languages reaching the third-threshold level Cummins (1979).

Several researchers in the United States (e.g., Collier, 1992) demonstrated that language minority students with higher levels of CALP, academic and literacy skills in their native language, reached higher levels of literacy and academic skills in English. Bilingual programs were successful with ELLs because they provided ELLs with instruction in their native language as well as instruction in the second language (Cummins, 2000).

### *Language Instructional Programs*

The National School Boards Association (2012) reminded educators that the Elementary and Secondary Education Act (n.d.), reauthorized as the No Child Left Behind Act (NCLB) of 2001, mandated educators to ensure that (a) children who are limited English proficient, including immigrant children and youth, achieve English proficiency and develop high levels of academic achievement in English, and meet the state academic achievement standards (*ESEA* Section 3102(1)), (b) high-quality Language Instruction Educational Programs (LIEPs) are developed to assist educators in teaching ELLs (*ESEA* Section 3102[3]), and (c) school districts are required to evaluate

their LIEPs regularly to ensure that students are meeting the standards (U.S. Department of Education, 2012).

Freeman and Freeman (2011) called attention to the fact that there are LIEPs that are *subtractive*, where the student's L1 is slowly replaced by the L2, and there are programs that are *additive*, where students add or acquire another language (Cummins 2000). This research study compared the reading achievement of third grade students in three different LIEPs in Texas: a Two Way Dual Language program, an *additive* program; a transitional bilingual program, a *subtractive* program; and an English as a Second Language program, a *subtractive* program. The LIEPs are divided into two categories (a) programs that develop literacy in English-only, and (b) programs that develop literacy in two languages (NCELA, n.d.).

### **Programs that Develop Literacy in English-Only (EO)**

There are four types of LIEPs in the category of programs that develop literacy in English-only (NCELA, n. d.): sheltered English instruction, structured English immersion (SEI), ESL pull-out, and ESL push-in. These programs are all subtractive programs because students are immersed from the beginning in all-English instruction, and there is no added language involved (Freeman & Freeman, 2011). The U. S. Department of Education (2012) indicated that these programs may be a more practical choice for schools or school districts where the state restricts the use of the native language for the academic instruction of ELLs or for the schools that have a need for linguistically qualified teachers (Department of Education , 2012).

### **Sheltered English Instruction (SI)**

According to Echevarria, Vogt, and Short, (2008) sheltered instruction is an approach to teaching content concepts to English language learners (ELLs) through various strategies such as visuals and modified text; while at the same time, promoting the students' English language development. Consequently, students learn the academic language and the content concepts simultaneously. Echevarria and Graves (2003) defined the word *sheltered* as instruction that “provides refuge from the linguistic demands of mainstream instruction which is beyond the comprehension of ELLs” (p. 53).

### **Structured English Immersion (SEI)**

NCELA, (n.d) states that the goal of structured English immersion is for the ELLs to acquire fluency in the English language. ELLs are taught in a self-contained classroom with other native English-speaking students. English language is used to teach the content concepts with teachers who are trained to make the concepts comprehensible. The teachers may adjust their instruction to the student's language proficiency level to assist the students to comprehend the content concepts of the lesson (D. Freeman & Freeman, 2011; NCELA, n.d).

In 1998, Ovando and Collier explained that the word *structured* referred to the use of highly *structured* materials used to teach students the English language step-by-step. Ovando and Collier (1998) further explained that programs such as Distar Reading, Language and Arithmetic were used as the initial instruction for students with disabilities. The program did not prove to be effective because as the students moved up



in grade level, their scores dropped. For instance, students had difficulty comprehending more cognitively complex work by fifth and sixth grades (Ovando & Collier, 1998). Thomas and Collier (2002) found that ELLs in this type of program did not make as much progress in reading and math as ELLs in other bilingual programs.

### **ESL Pull-Out Program**

ESL pull-out programs are generally referred to as *English Language Development* (ELD) programs (Baker, 2011). Baker (2011) described ELD programs as ones where ELLs are placed in mainstream classrooms and then pulled out of class during classroom instructional time for *compensatory* lessons. The *compensatory* lessons may be lessons that focus on grammar, vocabulary, and communication skills in English (Baker, 2011; NCLA, n.d.). D. Freeman and Freeman (2011) explained that ELLs are pulled out of their classrooms at various times to receive ESL support. For instance, students may be pulled out for an hour a day, or for twenty minutes a day, or twenty minutes twice a week. At the secondary level, students may have an entire period scheduled for their ESL class. Students may be given a separate lesson with other students from the same grade or placed in a group with students from various grade levels.

Freeman and Freeman (2005) observed that minor academic progress is made in the ESL pull-out program and once the students are mainstreamed, the gap between ELLs and native English-speakers is rarely closed. Consequently, many students drop out of school before they graduate (Freeman & Freeman, 2005). This information is valuable when considering what programs to choose for ELLs in the schools. Schmoker

(1999) reminded educators that “when we begin to more systematically close the gap between what we know and what we do, we will be on the cusp of one of the most exciting epochs in the history of education” ( p. 70).

### **ESL Push-In Program**

The ESL push-in program is also referred to as *ESL Pull-in content instruction*. In this program, an ESL teacher, specialist, or aide is pulled into the classroom to assist students for about two to three years (D. Freeman & Freeman, 2011). They assist students by providing ESL strategies, clarifications or oral translations of the lessons or translations of worksheets and tests. The instruction is provided in English with some native language support if needed (NCLA, n. d.). By the end of high school, many of these students drop out or are in the lowest fourth of their class (D. Freeman & Freeman, 2011).

One way the ESL push-in program can be more effective is to have the classroom teacher and the ESL specialist work together as a team to plan or co-teach the lessons. The ESL teacher can provide suggestions for teaching the language, and the classroom teacher can provide the content concepts for the lesson (Ovando & Combs, 2012).

### **Programs that Develop Literacy in Two Languages**

There are five types of LIEPs in the category of programs that develop literacy in two languages (NCELA, n.d.): early-exit transitional, late-exit transitional, heritage language, one-way Dual Language, and Two Way Dual Language. The early-exit

transitional program is a *subtractive* program because students' L1 is replaced by L2. The goal of the early-exit transitional program is to have students become *monolingual*. The other four programs are considered additive programs (Freeman & Freeman, 2011). The goal of additive programs is to have students become *bilingual*, developing social and academic proficiency levels in both English and their native language (Baker, 2011). ELLs, who struggled while in ESL or transitional programs that were later placed in Dual Language programs, were experiencing phenomenal gains (Lindholm-Leary, 2001; Thomas & Collier, 2002).

### **Early-Exit Transitional Programs**

Freeman and Freeman (2011) reported that in the early-exit transitional program, students' transition from speaking the native language into speaking English in the classroom is within the first three years of school. Teachers provide students instruction using the first language until students have developed enough English proficiency to be taught in English-only. When a non-English speaker enters school at second grade or later, the student usually receives less than three years of instruction in the first language. Upper grade teachers are encouraged to get students speaking English as quickly as possible (Freeman & Freeman, 2011).

Thomas and Collier (2002) reported that students usually lose their first language proficiency because the language is not developed beyond the first two to three years of instruction. When students test in high school, many score below the 50th percentile on the standard reading test (Freeman & Freeman, 2011; Thomas & Collier, 2002).

### **Late-Exit Transitional Programs**

Freeman and Freeman (2011) expressed that the goal of late-exit transitional programs was to have students become bilingual and biliterate. Instruction is provided in both languages for four to six years with teachers that are fluent in both languages. The native language is used for beginning instruction at lower grades, and the instruction gradually transitions into English until students are placed into mainstream classrooms with their English-speaking peers. The programs vary depending on the levels of literacy provided in L1. Thomas and Collier (2002) concluded that students in the late-exit transitional program achieved above the 50th percentile on standardized tests (Freeman & Freeman, 2011; Thomas and Collier, 2002).

### **Heritage Language Program**

The goal of this program is for students to have literacy in two languages (U.S. Department of Education, 2008). Therefore, teachers who are fluent in both languages provide instruction in both languages. This program targets non-English-speakers or students who have weak literacy skills in L1 (U. S. Department of Education, 2008). Students use their native, ethnic, home or heritage language to maintain and preserve their ethnic language and culture (Baker, 2011).

### **One-Way Dual Language Program**

The One-Way Dual Language program is also referred to as Dual Language (DL). In this program, ELLs are segregated and placed in one group (one-way) developing full literacy skills in L1 and L2 (Freeman & Freeman, 2011; OELA, 2008).

For instance, this one group of students may be taught reading through the 90/10 model (Christian, Howard, Lindholm-Leary, Rogers, & Sugarman, 2007). In a 90/10 model, 90 % of instruction is provided in the first language in kindergarten or first grade and 10 % of instruction is provided in English. As the student progresses to the next grade level, 80 % of instruction is provided in the first language and 20 % of instruction is provided in English. In the third year of the program, 70 % of instruction is provided in the first language and 30 % of instruction is provided in English. Thus, as the student reaches the fifth year of schooling, the instruction is provided 50 % in the first language and 50 % in English (Christian, Howard, Lindholm-Leary, Rogers, & Sugarman, 2007).

Alanis (2000) made a distinction between Two Way programs and one-way programs: Two Way programs involve two different language groups learning through two different languages, while one-way programs are comprised of only one language group learning through two languages. Because students in a one-way group remain in the same group throughout the years, ELLs have very little language interaction with native English-speakers, so the opportunity to participate in authentic language interaction is lost (Ovando & Combs, 2012).

### **Two Way Dual Language (TWDL) Programs**

Two Way Dual Language programs are also called *Two Way Maintenance Bilingual* or *Two Way Immersion*. The main goal is for both minority and majority students to become bilingual and biliterate (Torres-Guzman, 2002). Calderón and Carreón (2000), and Lindholm-Leary (2004) reported that there were four crucial components of the TWDL (1) two languages are used for instruction and classwork, with

50% of the native language used during the instructional day, (2) one language is used during instructional periods. Therefore, the concepts are taught in one language and are reinforced across the two languages in a spiraling curriculum. There are no translations or mixture of languages during instruction, thus students are not given the opportunity to tune out the second language and wait for instruction in their first language, (3) both ELLs and native English-speakers work in both languages in a balanced proportion. Teachers may alternate the language of instruction by theme or subject area, by time of day, or by day of the week, and (4) both ELLs and native English-speakers are grouped together for most content instruction. According to Lindholm-Leary (2004), Two Way Dual Language programs are commonly divided into two models: 90/10 model and 50/50 model. In the 90/10 model, the time allocated for instruction in each language varies across the grade levels, similar to the one-way Dual Language model. For instance, if a Two Way Dual Language program was arranged to teach reading to Spanish speaking students and English speaking students, both groups of students in kindergarten and first grade would spend 90 % of their instructional day with content delivered in Spanish. Conversely, 10 % of their instructional day would be delivered in English primarily to develop oral language proficiency for the Spanish-speaking students. Reading instruction begins in Spanish for Spanish and English-speakers. In second and third grades, both groups spend 80 % of their class time using Spanish and 20 % of their class time using English. As in the previous grade levels, most content is taught in Spanish. In second grade, English time is still largely devoted to developing students' pre-literacy skills and academic language proficiency for the Spanish-speakers.

By third grade, students begin formal reading in English. In fourth and fifth grades, instructional time is balanced equally, 50/50, between English and Spanish (Lindholm-Leary, 2004).

In the 50/50 model, (Gomez, Freeman & Freeman, 2005; Lindholm-Leary, 2004) the instructional time is divided 50/50 between English and Spanish. All students learn to read in their first language in kindergarten through second grade. Reading instruction in the second language begins in third grade. Lindholm-Leary (2004) cautioned educators stating that “good instruction is even more complicated in Dual Language programs because of added goals of bilingualism, biliteracy, and multicultural competence, and the constant need to integrate and balance the needs of the student groups” (p. 14).

Instructional time for the two languages may be divided in a number of ways: half day, alternate day, or even alternate week. Ovando and Collier (1998) advised that if two teachers are teaching, each teacher is responsible for instruction in one of the languages; the goal is academic growth (Ovando & Collier, 1998).

Two Way Dual Language programs can be implemented in schools where there are a limited number of bilingual teachers. Teachers can team teach on alternate days or weeks. A bilingual teacher can also provide Spanish instruction to one group in the morning and another group in the afternoon (Gomez et al., 2005; Lindholm-Leary, 2004). Freeman and Freeman (2011) reported that students in Dual Language programs outperformed students in transitional or developmental bilingual education programs and scored above the 50th percentile on standardized tests (D. Freeman & Freeman, 2011).

## **Two Way Dual Language Programs Compared with English-Only Programs**

Alanis (2000) compared the reading achievement of ELLs in English-only classrooms to the achievement of students in Two Way Dual Language classrooms. Alanis (2000) conducted a study of a 50/50 Two Way model program implemented for at least three years in a West Texas district with a 76 % Hispanic population. The languages used in the study were Spanish and English with the goals of reaching high levels of academic achievement and acquiring English and Spanish oral proficiency. The sample consisted of 85 fifth-grade Two Way bilingual students compared with 80 students from fifth-grade English-only classrooms.

The English Texas Assessment of Academic Skills (TAAS) test scores were used to compare the academic achievement of students in the Two Way program to the academic achievement of students in English-only classrooms. On the English reading TAAS results, the Two Way Dual Language students scored equal to or better than students in the English-only classrooms. The Two Way students also made gains in reading from third to fifth grade. On the English math TAAS results, the Two Way students scored equal to but not better than students in English-only classrooms. The Two Way students also made gains in math from third to fifth grade. The TAAS results indicated that the students who had been in the Two Way program for the longest time made the most gains in English academic achievement (Alanis, 2000). Alanis' research was important to this study because this study also researched the reading scores of ELLs in a 50/50 Two Way program compared to the reading scores of students in English-only classrooms and students in transitional bilingual classrooms.



## **Two Way Dual Language Programs Compared to Transitional Bilingual Programs**

Lopez and Tashakkori (2006), and Lindholm-Leary (2001) investigated how the academic achievement of ELLs in TWDL programs compared to the academic achievement of students in Transitional Bilingual Programs (TBP). Lopez and Tashakkori (2006) compared the Spanish and English achievement of ELLs participating in three Two Way Dual Language programs to the achievement of ELLs participating in three transitional bilingual programs.

The six schools were located in a large school district in the southeastern part of the United States and had similar demographic characteristics such as percent of students identified as ELLs, ethnic composition, and percent of students receiving free and reduced lunch. Using a mixed method design, information was collected from fifth-grade students who entered kindergarten or first-grade students with different levels of English proficiency. The Florida Comprehensive Assessment Test (FCAT) (Florida Department of Education, 2002) was used to measure the state's academic standards. The *Evaluación de Desarrollo de la Lectura* (EDL) (Ruiz & Cuesta, 2000) was used to measure the Spanish reading skills. This is the Spanish version of the Developmental Reading Assessment (DRA). The TWDL program followed a 60/40 model, 60 % instruction in English and 40 % instruction in Spanish. The students in the BTP stopped receiving instruction in their native language after reaching a certain level of English proficiency.

Lopez and Tashakkori (2006) determined that there were no significant differences in English academic achievement in reading and in other content areas such as mathematics and science in the FCAT between children who participated in the

TWDL program and those who participated in the BTP. Students enrolled in the TWDL program developed oral English at a faster rate and performed better on measures of reading in Spanish.

Lopez and Tashakkori (2006) concluded that regardless of the type of program, students who were most proficient upon entering kindergarten or first grade also scored the highest on measures of academic achievement in English five years later in fifth grade. The researchers also stated that the type of program in which the students were enrolled made no differential impact on their achievement; however, they noted that TWDL programs facilitated the development of literacy abilities in the students' first language. The students who participated in a TWDL program, which emphasized bilingualism and biliteracy, became more proficient readers in both languages. On a final note, regardless of the program of participation, the academic performance of the students after five years in the study was still behind when compared with the scores from native-English speaking students.

Lindholm-Leary (2001) conducted a large-scale longitudinal study and compared various factors. This research study focuses on the comparison of the reading achievement of students in various educational programs. Therefore, in the Lindholm-Leary study, the reading achievement section between Two Way Dual Language, transitional bilingual, and English-only programs were included. The reading achievement data were organized by grade level and three different educational programs: The three different programs were two different TWDL programs, transitional bilingual programs, and English-only (EO) programs. All schools were located in

California, except for one located in Alaska. The study used two different types of Dual Language models, the 90/10 model and the 50/50 model. There was a *high density* of minority students in some of the schools that implemented the 90/10 model, the 90/10 model was grouped into two categories, *90HI* and *90LO*. The 90HI represented *high* ethnic density for the schools whose density was greater than 66% minority students. The 90LO represented *low* ethnic density for the schools with fewer than 66% minority students.

The sample consisted of 6,209 students ranging from kindergarten through seventh grade. The primary grade levels (kindergarten through second grades) provided most of the data; however, the upper grade levels (seventh and eighth grades) generated very little data. Three different norm-referenced achievement tests were used for this study: the Comprehensive Test of Basic Skills (CTB/McGraw-Hill, 1981), the Metropolitan Achievement Test (Harcourt, 1992), and the CAS2. The students' scores were compared to the state averages using NCEs. The results were reported as follows:

### **Reading Achievement in the First Language for English and Spanish-Speakers**

Lindholm-Leary (2001) reported that students in the Dual Language programs made significant progress in their reading achievement in the first language. Their reading performance was comparable to their peers and the reading achievement in the first language was consistent in longitudinal and cross-sectional results.

English-speakers in the 90/10 programs performed below grade level in the first and second grades and performed average in third through seventh grades. Their scores were comparable with the statewide average (55–61) to very high (74–78). At the first

and second grade levels, students in 90/10 programs were reading in Spanish only. Consequently, the state average reading scores were low compared to the 50/50 peers and the English-only peers in English-only classrooms.

Spanish-speakers in the 90HI and 50/50 programs scored average at most grade levels and comparable to statewide averages for Spanish-speaking students tested in Spanish. However, peers in 90LO, BTP and EO programs scored below grade level and much lower than the statewide averages for limited English proficient students. In the 90/10 programs, there was a minor drop in Spanish at the fourth and fifth grades as students focused more on reading skills in English. They scored between the 34th to 39th NCE at sixth grade, and the 43<sup>rd</sup> NCE at seventh grade. Lindholm-Leary (2001) also conducted a variance analysis that showed that there was a significant interaction between program type and language background. The results revealed that 90HI programs promoted higher reading performance for Spanish-speakers. In the 90LO programs, English-speakers showed higher reading scores.

### **Reading Achievement in the Second Language for English and Spanish**

#### **Speakers**

Students in the Dual Language program also demonstrated growth in reading and language achievement in their second language. English-speaking students' reading achievement in Spanish varied according to the program. In the 90HI programs, students scored in the average range in Spanish at the primary levels. However, in 90LO programs, the scores were average to below average. Therefore, not reaching the statewide norms for Spanish-speakers. Formal reading instruction in English began at

third grade. By the end of third grade, the English-speaking students' scores were comparable to statewide averages. The data showed that English-speaking students had the ability to transfer their reading skills from Spanish to English. These results clearly showed that English-speaking students in the Dual Language programs were able to catch up and surpass the students in English-only classrooms.

Spanish-speakers also varied in their English reading achievement. The 90LO students scored higher than 90HI students in first, second, and fifth grades. In both 90HI and 90LO programs, students scored somewhat below grade level by seventh grade. Students in the 50/50 program performed higher than students in the 90/10 program in the third and fourth grades, but not in the fifth and sixth grades. In sixth grade, Spanish-speaking students in all Dual Language program types (50/50, 90LO, 90HI) scored comparably. Lindholm-Leary (2001) concluded that long-term achievement in English reading was equivalent for Spanish-speaking students in both 90/10 and 50/50 Dual Language programs. The findings of this research show no evidence to suggest that participation in Dual Language programs delay the native language development of Spanish or English-speakers (Lindholm-Leary, 2001).

The Dual Language program used a 50/50 Dual Language model named the *Gomez and Gomez Model* or the *50-50 Content Model* (Gomez et al., 2005). One of the unique characteristics of the model is that it does not require a 50/50 balance of native English-speakers and native Spanish-speakers. Therefore, the implementation of this model has been successful for districts that have a high-density population of Latino students.

Gomez et al. (2005) explained that the *50-50 Content Model* divides the students' languages, by subject rather than time. Each content area is taught in one language, except for language arts, which is taught in two languages. In the first two years of implementation, language arts is provided for both groups in the primary language. After the first two years, language arts is taught in the second language (first through fifth grades) to both groups. Providing language arts in L1 develops vocabulary and content concepts in reading and writing. In pre-kindergarten through fifth grades, math is taught in English for both groups, and science and social studies are taught in Spanish for both groups.

In the Gomez et al. (2005) study, English and Spanish-speakers were paired, one English speaker with one Spanish speaker. The pairing of students customarily changed on a weekly basis. In pairs, students went to *bilingual learning centers* in pre-kindergarten and first grade. The goal was to have the bilingual pairs work on self-directed learning activities for twenty minutes a day. Later, in second through fifth grades, the bilingual pairs participated in *bilingual resource centers* that contained project-based activities and materials that were available in English and Spanish.

Students were also homogeneously grouped for fifteen to twenty minutes of vocabulary enrichment in L1 to help them refine the concepts taught in the L2. The lessons were taught immediately following the vocabulary enrichment. The lessons were mostly literature based or in the form of games given for approximately thirty minutes twice a week. The school campus participated in a daily activity named *language of the day*. The entire campus alternated the use of Spanish and English each day for morning

announcements and activities such as storytelling, music, computer lab, physical education, and library time. This allowed all staff members to support and encourage the students to practice the new language.

The sample for the Gomez et al. (2005) study was taken from five schools across two school districts in the Rio Grande Valley region of south Texas. Gomez et al. collected over 240 Mexican American students' achievement scores. Texas uses the Texas Assessment of Knowledge and Skills (TAKS) to assess students. In District A, the model was implemented at three elementary campuses in prekindergarten through first grade starting in the year 2000. At the end of spring 2003, 117 Spanish-speakers were tested and out of those 117 students, 103 (88%) met the reading standard. There were 56 English-speakers tested and out of the 56 students, 51 (91 %) met the reading standard. Therefore, in all, 173 students were tested, and 154 (89%) met the third grade reading standard on the TAKS.

In 1997, the second district in Gomez et al. (2005) study, District B, used the model at two elementary campuses for a minimum of three to six years. The TAKS test was administered to fifth grade students in spring 2003. In reading, 68 students were tested from both campuses and 61 (90%) met the reading standard. It was also noted that 14% met the reading standard and 18% met the math standard with high commendation scores, according to Gomez et al. (2005).

Freeman, Freeman, and Mercuri (2005) stated that in spite of the variations and struggles, there was overall success with Dual Language programs. Schools that were previously rated low performing have become high performing schools after

implementing Dual Language programs. Alanis (2000), Thomas and Collier (1997), and Lindholm-Leary (2001) clearly demonstrated that the most powerful models of effective schooling for English language learners are the Dual Language programs. Thomas and Collier (1997) stated that what was astounding to her was that these programs were also dynamic models for school reform for all students. Alanis (2000) stated that one reason to increase Dual Language programs in schools is the strong desire from everyone to improve academic achievement for all language minority children while adding a second language for English-speakers. According to Calderón and Carreón (2000), site-based decision making has enabled schools, such as the schools that border Mexico, to implement Extended bilingual programs in which minority and majority students can become bilingual, biliterate, and bicultural. Administrators and teachers in these open-minded schools have sought ways to develop student-centered programs, which are integrated with whole-school efforts to improve and enrich instruction for all students. Freeman et al. (2005) expressed that:

Program leaders, working with teachers, have improvised to adapt proven models to fit the students, teachers, and available resources. Dual Language education has had such spectacular results, especially for English language learners, that educators are willing to make the necessary modifications to implement a program that will help their students (p. 39).

Schmoker (1999) stated that schools improved when administrators united purpose and effort by keeping everyone's eyes on the prize, which has been to improve student learning. Smith and Andrews (1989) stated that "the average school



administrator does not fail to reflect, but simply reflects on lesser things than the purpose of schooling and curriculum and instruction issues” (p. 4). Studies on effective schools (Smith & Andrews, 1989) reminded leaders that “the responsibility for improving instruction and learning rests in the hands of the school principal” (p. 1). Freeman et al. (2005) recommended that “the school principal must be knowledgeable about Dual Language education and committed to the program. This means that there must be an investment of time and energy on the part of the principal” (Freeman et al., 2005, p. 76). Freeman et al. (2005) reminded educators that administrative leaders need to monitor the implementation of the programs to ensure consistent planning, curriculum implementation, and classroom organization. Leaders need to provide and participate in on-going professional development for teachers through consultants, school visits, and conferences to maintain their knowledge of the program. District staff and principals need to provide necessary funding for rich and varied materials in both languages in all content areas. When schedules are organized, time needs to be provided for teachers to plan and problem-solve together during the week. Administration must also provide positive feedback to encourage students, teachers, and other staff and make all participants feel appreciated (Freeman et al., 2005).

### *Summary*

In Chapter II, I provided researched suggestions for administrative leaders as they make their second-order change to lead the Dual Language program. I also provided a detailed description of two conceptual hypotheses about how ELLs can acquire a

second language. This chapter also included a synthesis of reviewed literature related to different educational programs focused on the academic achievement of English language learners. Several descriptions of educational programs that were implemented in schools across the United States during my study were presented to compare Dual Language programs to Bilingual Transitional Programs, and to English as a second language programs. Dual Language educational programs have proven most effective for ELLs. The achievement in reading standards has increased in schools that have implemented the TWDL model.

## CHAPTER III

### METHODOLOGY

#### *Introduction*

The purpose of this study was to determine the impact of the Two Way Dual Language program on academic achievement of third grade students in the area of English reading. TAKS scores were used to compare the reading achievement of students enrolled in the Dual Language with the reading achievement of students enrolled in a transitional bilingual program and an English-only instructional program. In this chapter, I specifically restated the research questions and describe the research design, setting, sample schools, instrumentation, data collection, and data analysis.

#### *Research Questions*

This study was guided by the following research questions:

- To what extent do native speaker of Spanish reading TAKS scores differ based on their participation in either a Two Way Dual Language program or a transitional bilingual program?
- To what extent do native speaker of Spanish reading TAKS scores differ based on their participation in a Two Way Dual Language program compared to English speakers in an English-only program?

- To what extent do native speaker of English reading TAKS scores differ based on their participation in either a Two Way Dual Language program or an English-only program?
- Is there a significant difference between English reading scores of native speaker of English and native speaker of Spanish (ELLs) who have participated in a Two Way Dual Language program?

### *Research Design*

This study used a causal comparative research design, also called ex post facto research. Because the independent variable already occurred, ex post facto research was non-experimental. Ex post facto research can provide valuable information on important issues when it is applied properly (Patten, 2005). This design allows for the discovery of possible causes of a current condition in a situation where a variable cannot be manipulated (Patten, 2005).

This quantitative research design was selected because it allowed for a comparison of English reading TAKS scores among three groups of ELLs who participated in three different educational programs, and one English-speaking group that participated in the Dual Language program. The students had different educational experiences. Student TAKS test scores were gathered at the end of third grade, 2006, to compare the reading achievement in English of ELLs between the Two Way Dual Language program, the transitional bilingual program, and the English-only program. The students who participated in the Two Way Dual Language program had been in the

program since kindergarten or first grade. The Hawthorne effect was minimized since the research study was conducted well after initial program participation.

### *Setting*

District ABC (names of all schools were changed to protect privacy) was a chosen sample site because this district was a semi-rural region that was experiencing an increasing growth in the Hispanic population in Texas. In the past 7 years, there was a 16.9 % increase in the Hispanic population. In the school year 2005-2006, the Hispanic population was 1,631 students which represented a 32.4% of the total population. By comparison, the 2013-2014 school year showed the Hispanic population was at 2,764 students which represented 48.4% of the total population (see Table 1). In the year 2005-2006, District ABC served over 5,000 students and was composed of seven campuses: one high school, ninth to twelfth grades; one junior high school, seventh and eighth grades; one middle school, fifth and sixth grades; and four elementary schools, pre-kindergarten to fourth grade. District ABC was located in a semi-rural/agricultural region with rapid residential and commercial development. District ABC had four recognized campuses and one was named a 2004 TEA distinguished performance school. In 2005, the district won TEA gold performance acknowledgements.

A detailed description of District ABC was provided to demonstrate the increase in not just the Hispanic population, but also a 7.9% increase in the ELL population, along with a 12.8% decrease in the White population. In 2005-2006, District ABC had a total of 5,028 students. Out of the total enrollment (1,631), 32.4 % were Hispanics; (812)

**Table 1. Student Demographics for District ABC**

Demographic Group	2005-06		2013-14	
	Count	Percent	Count	Percent
Hispanic	1,631	32.4	2,764	48.4
Black	812	16.1	613	10.7
White	2,517	50.1	2,127	37.3
Other	68	1.4	201	3.6
Economically Disadvantaged	2,618	52.1	3,726	65.3
English Language Learner	770	15.7	1,346	23.6
Total Enrollment	5,028	100.0	5,705	100.0

16.1% were Black; (2,517) 50.1 % were White; (68) 1.4% were others; (2,618) 52.1% were economically disadvantaged; and (770) 15.7 % were English Language Learners (1,258) (Table 1). In 2013-2014, District ABC had a total of 5,705 students. Out of the total enrollment (2,764), 48.4% were Hispanics; (613) 10.7 % were Black; (2,127) 37.3% were White; (201) 3.6 % were others; (3,726) 65.3 % were economically disadvantaged; and (1,346) 23.6% were English Language Learners (see Table 1 above).

*Purposive Sample of Schools*

Four elementary schools with very similar environments in the same small community were selected for the sample of this study. The difference in the four elementary campuses are the three different types of educational programs for ELLs. I investigated the comparison of the TAKS English reading scores of ELLs at the end of third grade in the four elementary campuses within three different educational programs. The district approved access to conduct my study and favorably welcomed the study

with open-mindedness. Therefore, the data was available to me and would give valuable information based on the topic of my research in comparing the Two Way Dual Language program to the transitional bilingual program to the English-only instructional program. The University IRB approved the study on February 23, 2007.

It was important to include all the students who took the third grade TAKS test in English reading. The students who were included were instructed in the Dual Language program, and other students included were instructed in a Bilingual Transitional program or an English-only instructional program. The district provided the reading TAKS scores for all students. Therefore, the quantitative sample was a purposive sample that consisted of a total of 205 third grade students: 43 native speakers of Spanish and 162 native speakers of English. Next, I described the four schools: Campus A, Campus B, Campus C, and Campus D. Demographic information for each school is shown in Table 2 on the next page, followed by a description of each school.

**Table 2. School Demographic Information**

School Name	Campus (A)	Campus (B)	Campus (C)	Campus (D)
Type of Educational Program and Number of Students per program	Dual Language NSOS = 18 NSOE= 21 English-only NSOE= 66	Transitional Bilingual NSOS= 13 English-only NSOE = 46	Transitional Bilingual NSOS = 12 English-only NSOE= 68	English-Only NSOE= 27
2005-2006 Ethnic Breakdown from TEA	11.4% AA 40.4% H 46.9% W	15.2% AA 49.3% H 34.9% W	1.9% AA 30.7% H 66.4% W	75.7% AA 10.1% H 13% W
2006-2007 Ethnic Breakdown from TEA	11.9% AA 41.4% H 45.4% W	12.6% AA 54.4% H 32.6% W	1.5% AA 30% H 67.2% W	69% AA 20.7% H 10.3% W
2005-2006 % LEP and % Economically Disadvantaged	29.2% LEP 55.6% ED	35.5% LEP 70.4% ED	55.6% LEP 56.6% ED	5.3% LEP 78.1% ED
2006-2007 % LEP and % Economically Disadvantaged	30.1% LEP 52% ED	38.2% LEP 72.7% ED	21.4% LEP 52.2% ED	26% LEP 83.8% ED
2005-2006 Accountability Rating	Recognized	Recognized	Recognized	Recognized
2006-2007 Accountability Rating	Acceptable	Recognized	Acceptable	Recognized

*Note. Adapted from Texas Education Agency (2011). Academic Excellency Indicator System. Retrieved January 27, 2012 from*

*<http://www.tea.state.tx.us/perfreport/aeis/>*



## Dual Language Campus A

From year 2005-2006 to 2006-2007, Campus A did not have significant change in student demographics. There was a 3.6% increase in the economically disadvantaged population. The accountability rating for the 2006-2007 was *acceptable* whereas in the previous year the campus rating was *recognized*. This campus had an English-only instructional program and a Two Way Dual Language program, which began its implementation in 2002-2003 in kindergarten. Campus A maintained the Dual Language guidelines since the beginning of the Dual Language program. In 2005-2006, there were a total of 701 students, and in 2006-2007, there were a total of 712 students. In 2006-2007, the school had 11.4% African American students, 40.4 % Hispanic students, and 46.9% White students. There were 29.2% ELLs and 55.6% economically disadvantaged students.

TEA rated Campus A as *recognized* for the 2005-2006 school year. In 2006, *recognized* meant that 70% of the students passed the reading, writing, math and science TAKS (TEA, 2006a). TEA rated Campus A as *academically acceptable* for the 2006-2007 school year. In 2007, *academically acceptable* meant that 65% of the students passed the reading and writing TAKS, 45% passed the math TAKS, 65 % passed the social studies TAKS, and 40 % passed the science TAKS (TEA, 2007).

The district chose this school to have a two way Dual Language program. The Dual Language program at Campus A had two classes for the program at each grade level from kindergarten to fourth grade: one class for native speakers of English and one class for native speakers of Spanish. Students in this Dual Language program applied to

the program by filling out an application, and students were selected for the program by lottery. A waiting list for this Dual Language program existed. Initial literacy instruction in this program was 50% in English and 50% in Spanish for all students in the Dual Language program.

The sample from Campus A included all 21 native speakers of English (NSOE) and all 18 native speakers of Spanish (NSOS) who were enrolled in the Dual Language program since kindergarten or first grade, and who had completed the fourth grade in 2007. The sample also included all 66 NSOE students enrolled in the English-only program. This campus did not provide a transitional bilingual program.

### **Campus B**

From year 2005-2006 to 2006-2007, Campus B did not have significant change in student demographics. However, there was a 5.1% increase in the Hispanic population. The accountability rating for the 2005-2006 was *recognized* and remained *recognized* for the 2006-2007 school year. This district chose this school to have a Bilingual Transitional program. Campus B had an English-only instructional program and a late-exit transitional bilingual program. In 2005-2006, there were a total of 619 students, and in 2006-2007, there were a total of 605 students in the school. In 2006-2007, the school had 12.6 percent African American students, 40.4 % Hispanic students, and 32.6 % White students. There were 38.2 % ELLs and 72.7 % economically disadvantaged students.

TEA rated Campus B as *recognized* for the 2005-2006 and 2006-2007 school years. In 2007, *recognized* meant that 75 % of the students passed the reading, writing,

math and science TAKS (Texas Education Agency, 2007). In the transitional bilingual program, ELLs were exited out of the program by the end of third or fourth grade. No transitional bilingual program for any ELLs in fifth or sixth grade existed. The sample from Campus B included all 46 native speakers of English (NSOE) enrolled in the English-only program and all 13 native speakers of Spanish (NSOS) enrolled in the transitional bilingual program.

### **Campus C**

From year 2005-2006 to 2006-2007, Campus C had one significant change in student demographics. There was a 31.2% decrease in the Limited English Proficiency (LEP) population. The accountability rating for the 2005-2006 was *recognized* and the rating changed to *acceptable* for the 2006-2007 school year. The district also chose this school to have a Bilingual Transitional program. Campus C had an English-only instructional program and a late-exit transitional bilingual program. In 2005-2006, there were a total of 593 students, and in 2006-2007, there were a total of 594 students in the school. In 2006-2007, the school had 1.5 % African American students, 30% Hispanic students, and 67.2% White students. There were 21.4% ELLs and 52.2% economically disadvantaged students. The TEA rated Campus C as *recognized* for the 2005-2006 school year. In 2006, *recognized* meant that 70% of the students passed the reading, writing, math and science TAKS (TEA, 2006a). TEA rated Campus C as *academically acceptable* for the 2006-2007 school year. In 2007, *academically acceptable* meant that 65% of the students passed the reading and writing TAKS, 45% passed the math TAKS, 65 % passed the social studies TAKS, and 40% passed the science TAKS (TEA, 2007).

In the transitional bilingual program, ELLs are exited out of the program by the end of third or fourth grade. No transitional bilingual program for any ELLs in fifth or sixth grade existed. The sample from Campus C included all 68 native speakers of English students (NSOE) enrolled in the English-only program and all 12 native speakers of Spanish (NSOS) enrolled in the transitional bilingual program.

### **Campus D**

From year 2005-2006 to 2006-2007, Campus D experienced the most change in student demographics. There was a 6.7% decrease of African American students. There was a 10.6% increase in Hispanic students. There was a 2.7% decrease of White students. There was a 31.3% increase in Limited English Proficiency. There was a 5.7% increase in economically disadvantage. The accountability rating for the 2005-2006 was *recognized* and remained *recognized* for the 2006-2007 school year. The district chose not to have a transitional bilingual program at this school. Campus D had an English-only instructional program and no late-exit transitional bilingual program. ELL students were transported to a nearby campus that provided a late-exit transitional program. In 2005-06, there were a total of 169 students, and in 2006-2007, there were a total of 184 students in the school. In 2006-2007, the school had 69% African American students, 20.7% Hispanic students, and 10.3% White students. There were 13.6% ELLs and 83.7% economically disadvantaged students.

TEA rated Campus D as *recognized* for the 2005-2006 and 2006-2007 school years. In 2007, *recognized* meant that 75% of the students passed the reading, writing, math and science TAKS (TEA, 2007). The sample from Campus D included all 27

native speakers of English students (NSOE) enrolled in the English-only instructional program.

### *Data Sources*

I analyzed the reading achievement of ELLs because it benefits English language development, and it was one of the district's goal for all students. The data sources used were the Texas Assessment of Knowledge and Skills (TAKS) and the Academic Excellency Indicator System (AEIS).

### **Texas Assessment of Knowledge and Skills (TAKS)**

The TAKS reading assessments evaluated some of the most critical parts of the state-mandated curriculum, the Texas Essential Knowledge and Skills (TEKS). This curriculum was specifically designed to help students make progress in reading by emphasizing the knowledge and skills most critical for student learning. Texas former and current educators were hired to provide valued input on the content and to develop the test objectives. Therefore, the TAKS was divided into test objectives that were assessed through multiple choice or a short answer questions. The test items were reviewed to ensure that test items represented what the students were taught in the classroom, and what the students should know a result of exposure to the state curriculum. For example, according to TEA (2006c) in 2006-2007, the third grade reading TAKS consisted of various items, which assessed four instructional objectives:

Objective 1: The student will demonstrate a basic understanding of culturally diverse written texts.

Objective 2: The student will apply knowledge of literary elements to understand culturally diverse written texts.

Objective 3: The student will use a variety of strategies to analyze culturally diverse written texts.

Objective 4: The student will apply critical-thinking skills to analyze culturally diverse written texts. (p. 4)

All students in Texas, including ELLs were taught the state mandated curriculum, Texas Essential Knowledge and Skills (TEKS). The TAKS reading test was a criterion-referenced test mandated by the state of Texas to assess grades three through twelve (TEA, 2006c). This instrument was a valid measure of yearly progress for ELLs.

### **TAKS Reliability**

According to TEA (2005), reliability is a manifestation of how well an assessment measures learning. TAKS can provide only estimates of achievement levels, so the TAKS scores contain a certain amount of error; test reliability measurements quantify this error (TEA, 2005). Test “reliabilities are based on internal consistency measures, in particular on the Kuder-Richardson Formula 20 (KR20) for tests involving dichotomously scored (multiple-choice) items and on the stratified coefficient alpha for TAKS tests involving a combination of dichotomous and polychromous (short-answer and extended response) items. Most internal consistency reliabilities are in the high 0.80s to low 0.90s range with reliabilities for TAKS assessments ranging from 0.81 to 0.93” (TEA, 2005, p. 133).

## **TAKS Validity**

According to TEA (2005), validity is the collecting of evidence that supports the intended proper interpretations or inferences made from the scoring results of an assessment. Content validity explains whether a test item clearly represents what students should know in the content of reading. Therefore, the process of aligning TAKS to the curriculum was very important in ensuring the highest level of content validity. Numerous committees of Texas educators were formed and consulted to review the test items, to reduce single source bias. The items were also reviewed to make sure questions which required problem-solving and high level cognitive skills were included. During different stages of the TAKS test development, several test reviewers confirmed that the test items were specifically aligned with the test objectives. Various representatives from other states provided suggestions to improve or eliminate test items that did not reflect the state curriculum (TEA, 2005). On the TEA (2003) website, criterion validity was further explained in that:

Validity indicates the relationship between test performance and performance on some other measure. This other measure can be evaluated concurrently or at a future point in time and is then correlated with the test score. In this way, the test score is compared with a criterion that is thought to be a reasonable estimate of the same construct the original test purports to measure. (TEA, 2005, p. 109)

## **Academic Excellency Indicator System (AEIS)**

Part of the data collected for the purposes of my study was obtained from the Academic Excellence Indicator System (AEIS). According to the TEA (2011), every

year, AEIS collects a wide range of information on the performance of students in each school and district in Texas. An annual AEIS report, which was available each year in the fall, was generated to gather this information. The report provided extensive information on school and district staff, finances, programs, and demographics (TEA, 2011).

The AEIS database constituted two large bodies of information identified as (a) TAKS and the State-Developed Alternative Assessment (whether SDAA or SDAA II) and (b) The Public Education Information Management System (PEIMS). The TAKS was a statewide-administered alternative assessment of student performance in all academic areas. The PEIMS database reported on student demographics, special program participation data, and student attendance.

The AEIS database reported on an immense gathering of data, not data solely from the TAKS (TEA, 2006b). School districts across Texas submitted their respective campus data in a standardized electronic format each year. These data were downloaded in Portable Document Format (PDF) for viewing and for the purpose of analysis.

#### *Data Collection*

During the data collection process of my study, various steps were followed. First, permission to conduct research in the selected school district was granted by the superintendent on November 9, 2007. Second, approval to conduct this study was obtained on February 3, 2007 from The Institutional Review Board (IRB). Third, quantitative information, including the standardized test scores for all of the students in



the sample, was gathered by the district who provided me with an excel file containing all the district's English reading TAKS scores for students at the end of third grade.

Fourth, all the English TAKS reading scores were collected and moved into a Statistical Package for the Social Sciences 22 (SPSS) database by school and program. At the final stage of my study, reports were gathered using the AEIS database to obtain demographic information for each of the selected elementary schools in the district downloaded straight from Texas Education Agency Academic Excellence Indicator System.

### *Variables*

Participation in a Two Way Dual Language program, transitional bilingual program, or English-only instructional program were the independent nominal variables, and reading achievement in English as measured by the TAKS scores was the dependent ratio variable.

### *Data Analysis*

The following steps were followed with the collected data as outlined by Gall, Borg, and Gall (2003). First step, descriptive statistics were calculated for third grade TAKS reading scores for each educational program to calculate the mean and standard deviations of each group. Conditioning on the predictors (program and language), the reading score does not show big deviations from normality. Specifically, skewness is between -0.041 to 1.35, whereas kurtosis is between -0.910 to 2.101, both are within acceptable ranges.

Second step, a one-way Analysis of variance (ANOVA) was conducted to determine whether reading scores differ across programs. Because the one-way ANOVA is an *omnibus* test statistic and cannot specify which groups were significantly different from each other, (only that at least two groups were), a *post-hoc* test, such as Tukey HSD, was necessary to determine which specific groups differed from each other (Tukey, 1949).

Third step, a post-hoc comparison was conducted using Tukey's procedure to control for Type I error. For each research question, an independent t-test was conducted to determine statistically significant differences in the TAKS reading scores between the groups for each research question.

## CHAPTER IV

### RESULTS

#### *Introduction*

This study informs administrators of implications for Dual Language administrative leadership and also compares the reading achievement of third grade Spanish and English students enrolled in a Two Way Dual Language program, a transitional bilingual program, and an English-only instructional program. All program comparisons used the third grade English reading Texas Assessment of Knowledge and Skills (TAKS) scale scores.

Students were not randomly selected for the sample. It was important to include all the students who took the third grade TAKS test in English reading to demonstrate a change or a higher reading score of those students who were instructed in the Dual Language program as compared to those students who were instructed in a Bilingual Transitional program or an English-only instructional program . Therefore, the quantitative sample is a purposive sample that consists of 271 third grade students: 46 English Language Learners, 204 English-speakers enrolled in the English-only instructional program, and 21 English-speakers enrolled in the Two Way Dual Language.

First step, descriptive statistics were calculated for third grade TAKS English reading scores for each educational program to calculate the mean and standard

deviations of each group. Conditioning on the predictors (program and language), the reading score does not show big deviations of normality.

**Table 3. Language Normality Test**

Spanish	Mean	N	Std. Deviation	Kurtosis	Skewness
All Programs	2348.71	214	155.325	-.899	.045
Dual Lang	2276.62	45	126.412	.729	.957
Total	2336.18	259	152.944	-.861	.192

**Table 4. Program Normality Test**

Programs	Mean	N	Std. Deviation	Kurtosis	Skewness
Dual Lang	2367.28	39	134.091	-.601	-.041
Transitional	2258.67	27	125.516	2.101	1.350
English	2340.74	193	157.094	-.910	.126
Total	2336.18	259	152.944	-.861	.192

Table 3 and Table 4, demonstrate that the reading score does not show big deviations from normality. Specifically, skewness is between  $-0.041$  to  $1.350$  whereas kurtosis is between  $-0.601$  to  $2.101$ , both are within acceptable ranges.

Second step, Table 5, a one-way ANOVA for Reading, was conducted to determine whether reading scores differ across programs.

**Table 5. ANOVA for Reading (2006) among Three Instructional Language Programs**

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	203965.527	2	101982.763	4.477	.012
Within Groups	5831162.944	256	22777.980		
Total	6035128.471	258			

Statistically significant difference is observed,  $F(2, 256) = 4.48$ , and  $p = .012$ ,  $\omega^2 = 0.026$ .

**Table 6. Multiple Comparisons Post-Hoc between Instructional Language Programs**

*Dependent Variable: Reading (2006)*

*Tukey HSD*

(I) Programs	(J) Programs	Mean Difference			95% Confidence			
					(I-J)	Std. Error	Sig.	Lower Bound
Dual Lang	Transitional	108.615*	37.785	.012	19.54	197.69		
	English	26.541	26.497	.576	-35.92	89.01		
Transitional	Dual Lang	-108.615	37.785	.012	-	-19.54	197.69	
	English	-82.074*	31.010	.023	-	-8.97	155.18	
English	Dual Lang	-26.541	26.497	.576	-89.01	35.92		
	Transitional	82.074*	31.010	.023	8.97	155.18		

*\*The mean difference is significant at the 0.05 level.*

Third step, Table 6, a post-hoc comparison between instructional language programs, was conducted using Tukey's procedure to control for Type I error.

Statistically, the Tukey HSD test shows students in the Dual Language program have a higher score than those students in the Transitional program,  $p = .012$ , whereas, students in the English-only program have a higher score than those students in the transitional program,  $p = .023$ .

For each research question, an independent t-test was conducted to determine statistically significant differences in the TAKS English reading scores between the different programs for each research question.

*Research Questions*

This study was guided by the following research questions:

1. To what extent do native speaker of Spanish reading TAKS scores differ based on their participation in either a Two Way Dual Language program or a Transitional Bilingual Program?

**Table 7. Native Speaker of Spanish Reading Scores in Two Way Dual Language vs. Native Speaker of Spanish Reading Scores in Transitional Bilingual**

	Programs	N	Mean	Std. Deviation	Std. Error Mean
Reading (2006)	Dual Language	18	2303.56	126.431	29.800
	Transitional	27	2258.67	125.516	24.156

**Table 8. Independent T-test for Reading between Native Speaker of Spanish in Two Way Dual Language vs. Native Speaker of Spanish in Transitional Bilingual**

Levene's for Equality of Variances				t-test for Equality of Means					
t-test for Equality of Means									
95% Confidence Interval									
	Sig.	Mean Std.			Sig.	Mean	Std. Error	Lower	Upper
	F	Sig.	T	Df	(2 Tailed)	Diff	Diff	Bound	Bound
Equal variances assumed	.107	.754	1.172	43	.248	44.889	38.304	-32.358	122.135
Equal variances not assumed			1.170	36.403	.250	44.889	38.361	-32.880	122.658

When comparing the two groups, Table 7 shows the mean score of Spanish speakers in the Dual Language program is 2304, whereas that in the Transitional program is 2259. T-Test for Equality of Means, Table 8, demonstrates that there is no evidence for the difference in reading scores between the Spanish speakers in the Dual Language Program and the Spanish speakers in the Bilingual Transitional program, as  $t(43) = 1.17$ , and  $p = .248$ .

2. To what extent do native speaker of Spanish reading TAKS scores differ based on their participation in a Two Way Dual Language program compared to English speakers in an English-only program?

**Table 9. Native Speaker of Spanish Reading Scores in Two Way Dual Language vs. Native Speaker of English in English-only**

	Programs	N	Mean	Std. Deviation	Std. Error Mean
Reading (2006)	Dual Language	18	2303.56	126.431	29.800
	English-only	193	2340.74	157.094	11.308

**Table 10. Independent T-test for Reading between Native Speaker of Spanish in Two Way Dual Language vs. Native Speaker of English in English-only**

	Levene's Test for Equality of Variances			t-test for Equality of Means					
	F	Sig.	T	Df	Sig. (2 Tailed)	Mean Diff	Std. Error Diff	Lower Bound	Upper Bound
Equal variances assumed	3.197	.075	-.975	209	.331	-37.185	38.157	- 112.40	38.036, T 7
Equal variances not assumed			-1.167	22.2 07	.256	-37.185	31.873	- 103.25	28.880 1

Table 9 shows the mean score of Spanish speakers in the DL program is 2304, whereas that of English speakers in the English-only program is 2341. T-Test for Equality of Means, Table 10, demonstrates that there is no evidence for the difference in reading scores between the two groups, as  $t(209) = -0.98$ ,  $p = .331$



3. To what extent do native speaker of English reading TAKS scores differ based on their participation in either a Two Way Dual Language program or an English-only program?

**Table 11. Native Speaker of English in Two Way Dual Language vs. Native Speaker of English in English-only**

	Programs	N	Mean	Std. Deviation	Std. Error Mean
Reading (2006)	Dual Language	21	2421.90	117.421	25.623
	English-only	193	2340.74	157.094	11.308

**Table 12. Independent T-test for Reading for Native Speaker of English in Two Way Dual Language vs. Native Speaker of English in English-only**

	Levene's Test for Equality of Variances				t-test for Equality of Means					
	F	Sig.	T	Df	Sig. (2 Tailed)	Mean Diff	Std. Error Diff	Lower Bound	Upper Bound	
Equal variances assumed	6.866	.009	2.297	212	.023	81.16	35.338	11.504	150.823	
Equal variances not assumed			2.898	28.436	.007	81.16	28.008	23.832	138.495	

Table 11 shows the mean score of English speakers in the DL program is 2422, whereas that of English speakers in the English-only program is 2341. T-Test for Equality of Means, Table 12, demonstrates that there is statistically significant difference

in reading scores between the two groups, as  $t(212) = 2.30, p = .023$ , with those in the Dual Language program having a mean 81 points higher than those in the English-only program.

4. Is there a significant difference between English reading scores of native speaker of English and native speaker of Spanish (ELLs) who have participated in a Two Way Dual Language program?

**Table 13. Native Speaker of English Reading Scores vs. Native Speaker of Spanish Reading Scores in Two Way Dual Language**

	Language	N	Mean	Std. Deviation	Std. Error Mean
Dual Language	English	21	2421.90	117.421	25.623
	Spanish	18	2303.56	126.431	29.800

**Table 14. Independent T-test for Reading between Native Speaker of English vs. Native Speaker of Spanish within the Two Way Dual Language**

	Levene's Test for Equality of Variances				t-test for Equality of Means				
	F	Sig.	T	Df	Sig. (2 Tailed)	Mean Diff	Std. Error Diff	Lower Bound	Upper Bound
Equal variances assumed	282	.599	3.029	37	.004	118.349	39.073	39.180	197.519
Equal variances not assumed			3.011	35.115	.005	118.349	39.302	38.572	198.126

Table 13 demonstrates that the mean score of English speakers in the DL program is 2422, whereas that of Spanish speakers in the same program is 2304. T-test for Equality of Means, Table 14, shows that there is statistically significant difference in reading scores between the two groups, as  $t(37) = 3.03, p = .004$ , with English speakers having a mean 118 points higher than Spanish speakers.

### *Summary*

In this chapter, I presented the quantitative results obtained from the descriptive and inferential statistical analyses of this study comparing the English reading achievement of third grade students enrolled in a Two Way Dual Language program, a transitional bilingual program and an English-only instructional program.

In summary, comparisons in English reading scores between the Spanish speakers enrolled in a Two Way Dual Language program compared to those enrolled in a transitional program, the data indicated that there is no significant statistical difference between the Two Way Dual Language and the transitional program. Nor is there evidence that they differ in their chances of passing the test.

In the comparison between Spanish speakers enrolled in the Two Way Dual Language program and English speakers in the English-only instructional program, the data revealed that there is no significant statistical difference between the Dual Language program and the English-only instructional program. Also there is no evidence that the two differ in their chances of passing the test.

In the comparison between English speakers in the Dual Language program and English speakers in the English-only program, the data indicates that there is a significant statistical difference between the Dual Language program and the English-only instructional program. The students in the Dual Language program have a mean 81 points higher than those in the English-only program.

Lastly, in the comparison between Spanish speakers and English speakers in the Dual Language program, the data shows that there is a significant statistical difference between English speakers and the Spanish speakers enrolled in the Two Way Dual Language program. English speakers have a mean of 118 points higher than Spanish speakers. Chapter V includes the conclusions, interpretations, and implications suggested by these results.

CHAPTER V  
IMPLICATIONS, AND RECOMMENDATIONS

*Introduction*

The purpose of the study is reviewed in this final chapter. In addition, the findings of the study are discussed, and the results for each question are summarized. Lastly, conclusions and recommendations for future research are presented.

*Purpose of the Study*

Hispanic students are the fastest-growing minority group in public schools (Passel, 2011; Passel & Cohn, 2008). Therefore, careful consideration should be placed on the academic and linguistic development of these students to ensure their academic success. Hispanic students are dangerously lacking in academic achievement when compared with other ethnic groups (Aud et al., 2011; Nord et al., 2011). In the United States, Hispanics already represent the largest percentage of the overall student population (Passel, 2011; Passel & Cohn, 2008). Therefore, their educational success or failure could have significant consequences on the economy, and in general, on the society as a whole (Freeman Y. S., Freeman D. E., & Mercuri S. P., 2005).

A considerable number of studies have been conducted to find ways to reduce the achievement gaps between Hispanic students and other students. Some researchers, for instance, have directed their efforts to demonstrating that using a certain language of instruction is the key factor to the success of Hispanic students (e.g., Lindholm-Leary,

2001; Torres-Guzman, 2002; Thomas & Collier, 2002, 2004; Y. Freeman, Freeman, & Mercuri, 2005). Therefore, schools should have effective programs in place to meet the linguistic needs of this growing student population.

The purpose of this study was to compare the reading achievement of third grade students enrolled in three instructional programs. Comparisons were made between the TAKS scores of third grade students enrolled in a 50/50 Two Way Dual Language program, a transitional bilingual program, and an English-only instructional program. A comparison was also made between the English reading scores of Spanish and English-speakers enrolled in the 50/50 Two Way Dual Language program.

#### *Summary and Discussion of Findings*

There are so many various types of instructional programs in reading for English language learners. It is important for all educators to know which programs produce higher achievement in reading. The purpose of research question 1 was to compare the third grade English reading TAKS scores of Spanish speaking students enrolled in a Two Way Dual Language program to English reading TAKS scores of Spanish-speakers enrolled in a transitional bilingual program. The results indicated that there is no significant statistical difference between the two programs (see Table 8, Chapter IV). This finding is supported by the threshold theory and the interdependence theory (Cummins, 1976). The threshold theory is related to the interdependence theory through the transfer process (Baker, 2011; Cummins, 1976). Students are functioning at the first and second level of the threshold theory. Students need to reach certain levels of

linguistic skills in L1 in order to support the transfer into L2 (Baker, 2011; Durgunoglu, 2002). Only *balanced bilinguals* fully receive the positive cognitive effects of being bilingual (Cummins, 2000; Freeman & Freeman, 2011). According to Freeman and Freeman (2011), "a balanced bilingual is someone who is equally competent in two languages" (p. 146).

Because in this study a late-exit transitional bilingual program was used to serve the transitional bilingual students, the threshold theory might explain the same cognitive and linguistic outcomes experienced by students in these groups. As mentioned previously, the complete benefits supported by the threshold theory are reached when students become bilingual (third threshold level) (Cummins, 2000). This finding is also supported by research from Thomas and Collier (2002). In their research, Two Way Dual Language students reached full bilingualism because the Two Way Dual Language model was used (Thomas & Collier, 2002). In this particular study, students in the transitional bilingual program were considered partially bilingual because they were developing L1 and developing L2 sequentially. These students presented linguistic characteristics that classified them at the second threshold level according to this theory (Cummins, 2000). In other words, students had developed age and grade-appropriate competencies in Spanish only, and their English was still developing in both programs.

The purpose of research question 2 was to compare the third grade English reading TAKS scores of Spanish-speakers enrolled in the Two Way Dual Language program to the third grade English reading TAKS scores of English-speakers enrolled in an English-only instructional program (EOS). The findings revealed that there is no

evidence for the difference in reading scores between the two programs. (see Table 11, Chapter IV). The finding in this research question is confirmed by several researchers (e.g., Reese et al., 2006). Reese et al. (2006) determined that students in English immersion and Dual Language programs outperformed students in developmental programs, because former students had received more English instruction than students did in developmental programs. Therefore the Spanish speakers enrolled in the Dual Language program had no difference in the reading scores than those students enrolled in the English-only program. Thomas and Collier's (2002) national study publicized several important points that support this study of the comparisons of various educational programs for ELLs. For instance, these researchers highlighted that Dual Language programs were the only programs found that supported students to fully reach 50<sup>th</sup> percentile in both L1 and L2 in all subjects and to maintain that level of high achievement, or reach even higher levels. The students achieved well above the 50<sup>th</sup> percentile in all subject areas on non-referenced test in English. The students also equaled or outperformed their comparison groups of students who were schooled in one language.

The purpose of research question 3 was to compare the third grade English reading TAKS scores of English speakers enrolled in the Two Way Dual Language program to the third grade English reading TAKS scores of English speakers enrolled in an English-only instructional program. According to the findings of this study, English speakers enrolled in the Two Way Dual Language program (DLE) had a higher mean rank and median in third grade English reading (see Table 14, Chapter IV) than the



English speakers enrolled in an English-only instructional program. Therefore, the English speakers enrolled in the Two Way Dual Language program performed better than the English speakers enrolled in an English-only instructional program (EOS) in third grade English reading TAKS. English speakers enrolled in a Two Way dual-language program scored 81 points higher than those enrolled in an English-only program. Several researchers support these findings (e.g., Alaniz, 2000; Calderon, 2000; Christian & Genesee, 2004; Reese et al., 2006).

Reese et al. (2006) determined that students in programs that spent more time on English instruction reached higher levels of English achievement. Similar results were found by Alaniz (2000) who investigated fifth-grade 50/50 dual-language students' English literacy achievement. In her study, she found that students in Two Way Dual Language programs scored equal or better on the English reading TAAS than students in all-English classrooms did, and they made gains in English reading from third to fifth grade.

Howard, E. R., Christian, D., & Genesee, F. (2004) examined the English reading achievement of ELLs in two different 90/10 Two Way Dual Language programs and compared their achievement to the district and state averages. Both groups of 90/10 Two Way Dual Language students outperformed their district and state peers on English reading achievement tests in fifth-grade. Calderon (2000) stated that high academic achievement was a critical feature of successful Dual Language programs.

The purpose of research question 4 was to compare the third grade English reading TAKS scores of Spanish speakers enrolled in a Two Way Dual Language

program to the third grade English reading TAKS scores of English speakers also enrolled in a Two Way Dual Language program. English speakers enrolled in the Two Way Dual Language program scored 118 points higher mean rank (see Table 16, Chapter IV) than the Spanish speakers enrolled in the Two Way Dual Language program. Therefore, the English speakers enrolled in the Two Way Dual Language program performed better than Spanish speakers enrolled in the Two Way Dual Language program in third grade English reading. These results further support other researchers such as Reese et al. (2006) who determined that students in programs that spent more time on English instruction reached higher levels of English achievement. Similar results were found by Alaniz (2000) who investigated fifth-grade 50/50 dual-language students' English literacy achievement. In her study, she found that students in Two Way dual programs scored equal or better on the English reading TAAS than students in all-English classrooms did, and they made gains in English reading from third to fifth grade.

Howard, E. R., Christian, D., & Genesee, F. (2004) examined the English reading achievement of ELLs in two different 90/10 Two Way Dual Language programs and compared their achievement to the district and state averages. Both groups of 90/10 Two Way Dual Language students outperformed their district and state peers on English reading achievement tests in fifth-grade. This research clearly shows that English speakers have an advantage if placed in a dual-language program because their achievement is higher than all others, and they are adding a second language, which may be a future benefit.

### *Implications and Recommendations for Practice*

The Center for Applied Linguistics (2012) provides administrators a tool that can be used to support the Dual Language program on various schools. The Guiding Principles for Dual Language Education (Howard, 2007) was developed as a tool to help support Dual Language programs (extended immersion, heritage language, foreign language immersion, or developmental bilingual programs) with planning and ongoing implementation. Grounded in evidence from research and best practices, the guiding principles address program issues in seven strands: Assessment and Accountability, Curriculum, Instruction, Staff Quality and Professional Development, Program Structure, Family and Community, and Support and Resources. The guiding principles were based on the Framework of Best Practices for New Mexico Dual Language Programs developed by Dual Language Education of New Mexico and were adapted by a national panel of Dual Language experts and reviewers (Howard, 2007). In addition to the Dual Language guidelines, the following are further recommendations.

### *Implications for School Administrators*

Although school administrators do not have as much direct daily contact with Hispanic students as classroom teachers, administrators can support the success of all students:

- Determine if the program for ELLs requires a second-order change (Waters and Cameron, 2007). For example, Dual Language principal should have not

only a first-order but, a second-order change to be effective in leading the teachers, staff and community correctly.

- Administrators should implement the seven leadership responsibilities correlated with second-order change that have positive change (Waters and Cameron, 2007).
  1. Knowledge of Curriculum, instruction and assessment
  2. Flexibility
  3. Change Agent
  4. Ideals and Beliefs
  5. Monitor and evaluate
  6. Intellectual stimulation
  7. Optimize
- Establish a transitional team who can share the following four responsibilities that need extra attention to avoid negative consequences of the second order change:
  1. Culture: help articulate a vision; encourages positive attitudes; interpret disappointment as opportunities for improvement; and clarify parts that individuals can play in successfully implementing changes.
  2. Order: plan and stage ceremonial events that honor past, clarify what is ending and what is starting; develops negotiates temporary agreements of policies to provide new structures to guide an support behavior as new norms change.

3. Communication: listen to concerns; clarifies and simplifies the new directions of the organization; help individuals to see connections between shared values and new direction.
  4. Input: encourage and actively seek experiences of the staff with implementation; facilitates study sessions to learn what is working; and reiterate the reasons or purpose for the change initiative.
- Support Hispanic students when consistently evaluating the Dual Language program and the program's teachers through professional learning communities (R. DuFour & R. Eaker, 1998).
  - Give equal prestige to both languages by, for example, promoting school-wide activities such as morning announcements in English and Spanish, and bringing key note speakers who address the audience in both languages.
  - Use the Guiding Principles for Dual Language Education to rate the Dual Language program ([www.cal.org/twi/guidingprinciples.htm](http://www.cal.org/twi/guidingprinciples.htm)).

### *Implications for Teachers*

The job teachers perform in the classroom is one of the main determinants for the academic success of their students because they are the ones who have the most direct contact with the students (Darling-Hammond et al., 2005). When working with Hispanic students, however, teachers should:

- Establish strong relationships with ELL students.

- Create various opportunities for students to work collaboratively in groups. Students in this study extensively described lessons that were engaging, fast-paced, hands-on, cognitively demanding, and fun. Based on students' elaborations, lessons appeared to be designed with differentiated instruction in mind, and individual student needs seemed to be targeted based on academic and linguistic readiness, interest, and the learning profiles of students. Discuss improvements and needs through professional learning communities (R. Defour & R. Eaker, 1998).
- Design and deliver lessons with clear and measurable content and language objectives.
- Understand key cultural elements in interacting with and educating Hispanic students, specifically for teachers in English-only classes.

### *Recommendations for Future Research*

This study focused solely on quantitative research of reading achievement.

Therefore, the findings in this research study suggest the following recommendations for further research:

- Qualitative research to investigate the degree in which Hispanic students validate or refute the findings in this quantitative study and to gather information on effective classroom practices or effective Dual Language teachers and students' perspectives of the Dual Language program.

- Future studies should be larger in scale using longitudinal research that focuses on classroom practices so that we know what really occurs in the classroom to increase the academic achievement of ELLs.
- Future qualitative studies to determine perspectives of administrators, teachers and students of the Two Way Dual Language program. Include written expression and mathematics achievement as dependent variables in a similar study to get a more comprehensive picture of academic achievement in general.
- Analyze reading achievement in Spanish to measure biliteracy. It would be worthwhile to investigate this area because academic and linguistic development in two languages is a goal of bilingual education programs.
- Future studies should be conducted to look at reading scores in Spanish reading for the native speaker of Spanish in a Two Way Dual Language program vs. the native speaker of Spanish in a Transitional Bilingual program.
- Continue to monitor the academic achievement of students in these three programs to the end of high school.

In conclusion, in the participating district, in order to meet the varied learning needs of students, elementary campuses implemented the three instructional approaches included in this research study's research design. The findings of the research study reflect that English speakers who participate in a Two Way Dual Language program have higher achievement in reading than students who participate in the late-transitional

bilingual program and the English-only instructional program. In addition, English speakers outperformed other students in reading and added a second language for their future use. The English learners enrolled in the Dual Language programs had higher achievement in TAKS reading than students enrolled in transitional or English-only programs, and there was a significant difference between the Dual Language performance and the English-only performance for English speakers. Two Way Dual Language programs are proven to work for English speakers.



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