2016

A Mixed-Methods Study of Academic Achievement and Parental Perspectives in a Dual Language Program

Nicole Folsom
Loyola University Chicago

Recommended Citation

LOYOLA UNIVERSITY CHICAGO

A MIXED-METHODS STUDY OF ACADEMIC ACHIEVEMENT AND PARENTAL

PERSPECTIVES IN A DUAL LANGUAGE PROGRAM

A DOCTORAL RESEARCH PROJECT SUBMITTED TO

THE FACULTY OF THE GRADUATE SCHOOL OF EDUCATION

IN CANDIDACY FOR THE DEGREE OF

DOCTOR OF EDUCATION

PROGRAM IN SCHOOL PSYCHOLOGY

BY

NICOLE C. FOLSOM

CHICAGO, ILLINOIS

AUGUST 2016

ACKNOWLEDGEMENTS

TABLE OF CONTENTS

LIST OF TABLES

ABSTRACT

Bilingual education has been a controversial topic in the United States. There is a substantial literature base indicating the effectiveness of dual language programs in a variety of settings, but simply calling a program dual language does not automatically result in positive outcomes for students. It is essential for school districts to understand the outcomes of their specific dual language programs in their unique contexts. The purpose of this mixed-method, longitudinal analysis was to examine the English academic performance of students participating in a dual language program utilizing existing reading and math data. The researcher also employed survey methods to examine parental perspectives of the dual language program. The research questions for this study were as follows: 1) Is there a significant difference in the reading performance of Spanish learners in the dual language program versus English learners in the dual language program versus English proficient students in monolingual programming for each cohort entering kindergarten in the 2007-2008 school year to the 2014-2015 school year? 2) Is there a significant difference in the math performance of Spanish learners in the dual language program versus English learners in the dual language program versus English proficient students in monolingual programming for each cohort entering kindergarten in the 2007-2008 school year to the 2014-2015 school year? 3) How satisfied are parents of students participating in the dual language program with the overall program, as well as with their child's academic performance and second language acquisition?

CHAPTER 1

INTRODUCTION

There are a number of terms used to identify students who are linguistically diverse. The term "English learner" is utilized in this study because it is asset-based rather than deficit-based such as the term "limited English proficient." Burr, Haas, and Ferriere (2015) define English learner as the following:

> An individual ages 3–21 who is enrolled or preparing to enroll in an elementary school or secondary school; who was not born in the United States or whose first language is a language other than English, who is a Native American or Alaska Native or a native resident of the outlying areas and comes from an environment where a language other than English has had a significant impact on his or her level of English language proficiency, or who is migratory, has a first language other than English, and comes from an environment where a language other than English is dominant; and whose difficulties in speaking, reading, writing, or understanding the English language may be sufficient to deny him or her the ability to meet the proficient level of achievement on state assessments, the ability to successfully achieve in classrooms where the language of instruction is English, or the opportunity to participate fully in society. (p. 3)

The population of students who are English learners is rapidly increasing in the United States. In the school district in which this study takes place, the percentage of English learners increased from 1.6% in 2004 to 4.1% in 2014 (Northern Illinois University, 2014). According to Christian, Howard, and Loeb (2000), "school districts around the country are challenged by the increasing linguistic diversity of their student populations" (p.258). There are abundant data to indicate that the collective academic performance of English learners is significantly below that of their monolingual English-speaking peers. Approximately one-fourth of English learners drop out of school, and a significant number of English learners are experiencing academic difficulties (Rhodes, Ochoa, & Ortiz, 2005; Thomas & Collier, 2012).

Bilingual Education

Models

According to Rhodes et al. (2005), in the United States, there are a variety of models for providing services to English learners in schools. Pullout English as a Second Language (ESL) programs focus on developing a student's English-language skills in a pullout setting. Content-based ESL/sheltered English programs focus on teaching academic material in English with accommodations for language. The goal of pullout ESL and content-based ESL/sheltered English programs is for English learners to acquire English, not to maintain their native language. Transitional/early-exit bilingual education programs initially use the child's native language and then transition to an English-speaking environment. These programs are generally two to four years in length. The goal of these programs is to teach the child English, but at the expense of his or her native

language, making the program a subtractive bilingual education program. Maintenance/late-exit bilingual education programs are similar to transitional/early-exit bilingual education programs, but they are offered for a greater length of time, usually four to six years, and they use the child's native language to a greater extent. The goal of maintenance/late-exit bilingual programs is to assist the child in maintaining his or her native language while acquiring English, making them additive bilingual education programs (Rhodes et al., 2005).

The focus of this study is on two-way immersion/dual language bilingual education programs. Programs are considered "two-way" when the program consists of both English learners and learners of the partner language (i.e. the language other than English). The goal of these programs is for both English learners and learners of the partner language to become bilingual and biliterate; two-way immersion/dual language bilingual education programs are additive in nature (Rhodes et al., 2005). Two-way immersion/dual language bilingual education programs are also considered enrichment for the learners of the partner language. The researcher in this study utilizes the term "dual language" because it is the term used most frequently in United States public schools in recent years (Thomas & Collier, 2012).

Dual language programs include the following core components: (a) instruction takes place in two languages, with the partner language used for a minimum of 50% of the students' instructional day; (b) students and teachers use only one language at any given class/time period without concurrent translation; and (c) students participate in the

program for a minimum of six years (Lindholm-Leary, 2005; Thomas & Collier, 2012; Torres-Guzmán, Kleyn, Morales-Rodriguez, & Han, 2005).

The two most popular models of language distribution in dual language programs are the 90:10 and 50:50 models. In the 90:10 model, students are immersed in the partner language for 90% of instruction during the first two years of schooling. There is a gradual increase of instructional time in English as students progress through the program, until reaching a 50:50 distribution of language, which helps students transfer skills from the partner language to English. In the 50:50 model, an equal percentage of instructional time is given to English and the partner language from the first year of schooling (Thomas & Collier, 2012). Collier, Thomas, and Tinajero (2006) indicated that the 90:10 model is more efficient and effective, but in some settings, the 50:50 model is easier for key stakeholders to comprehend.

In dual language programs, literacy instruction is provided in both the partner language and English over the course of the program. There are three possibilities for approaching initial literacy instruction: (a) partner language first; (b) both languages simultaneously; or (c) native language first; partner language first and native language first are both sequential approaches, while both languages at the same time is a simultaneous approach. There are benefits and challenges to each of these three options for initial literacy instruction. For example, when instructing in both languages simultaneously, the model currently used in the dual language program in this study, students learn literacy skills that support the work they complete in academic content areas in both languages, but this model requires educators to carefully plan and

coordinate instruction to build literacy in both languages while scaffolding to meet the needs of students from the two native language groups (Howard & Sugarman, 2009).

Controversy

Bilingual education has been a controversial topic in the United States, and there are a variety of misconceptions related to the impact of bilingual education on academic outcomes and English acquisition. According to Ovando (2003), "convincing politicians and the public that bilingual education is a theoretically sound and effective way to educate not only language-minority students but also language-majority students has been difficult" (p. 15). Although research has indicated positive long-term outcomes for bilingual education, additive bilingual programs, in which students maintain their native language, are much less common than less effective pullout and content-based ESL programs (Rhodes et al., 2005). Historically, parents, school officials, and policy makers have demonstrated concerns that significant native language instruction may be detrimental to development in English (Bae, 2007; Thomas & Collier, 2012). The concept of teaching students English by providing native language instruction can be counterintuitive to stakeholders (Lindholm-Leary, 2012; Ovando, 2003).

According to Hamayan, Genesee, and Cloud (2013), in order to build a solid foundation for a successful dual language program, support for the program must be garnered by dispelling myths and ensuring that key stakeholders have a clear understanding of the benefits of bilingualism. Some stakeholders may believe that young children are "linguistic sponges" that can acquire a second language easily and quickly with little formal instruction, when in fact, second language learning can take children up

to five to seven years to achieve cognitive/academic language proficiency. Another myth is that more time in English in school equates to higher levels of academic success in English; in reality, research indicates that more instruction in English does not result in better outcomes for either native English speakers or English learners (Hamayan et al., 2013).

Furthermore, some stakeholders may argue that dual language programs are not appropriate for all students, such as students with special needs or learning difficulties. On the contrary, Hamayan et al. (2013) indicated the following:

> Overall, available research indicates that students who experience socioeconomic disadvantages, difficulties in their first language, and in the case of English-speaking students, those with low academic ability, are not put at greater risk in DL [dual language] programs than similar students in English-only programs and, at the same time, they benefit from enhanced levels of bilingual competence. (p. 36)

In some states with high populations of English learners, such as Arizona and California, current policies significantly restrict bilingual education programs (Marian, Shook, & Schroeder, 2013). In California, Proposition 227 banned bilingual education. Bilingual programs were only allowed after parents requested a waiver to select bilingual instruction for their children, essentially limiting participation in bilingual instruction to children whose parents were informed and organized (Lopez, 2013). In Illinois, where this study takes place, the school board of a large unit school district voted to end the dual language program, which served over 300 students, at the end of the 2014-2015 school

year. Following dissent from parents and the election of several new school board members, the dual language program was reinstated for the 2015-2016 school year. This local example illustrates the possibility of dissolution of dual language programs due to challenges such as poor outcomes, financial constraints, and lack of buy-in from key stakeholders such as school boards, administrators, and community members. It is essential for educators to understand the benefits of bilingual education and dual language programs in order to provide the best chance of academic success for English learners.

Response to Intervention for English Learners

When working with English learners who are struggling academically, educators must determine whether differences in academic performance of an English learner are due to language differences or a disability. In a response to intervention model, educators must examine a student's achievement in comparison to "true peers," who have similar language proficiencies, culture, and experiential background, rather than in comparison to national norms (Brown & Doolittle, 2008; Rhodes et al., 2005). A student in the dual language program may demonstrate academic performance that is below the expected standards for monolingual classrooms, but it is possible that the student's performance would not be discrepant in comparison to peers in the dual language program. Currently in the school district in which this study takes place, there are no local norms for students in the dual language program that compare performance to "true peers." Comparisons could be made within one dual language classroom in a school, but the number of comparable peers in the classroom is limited; a much larger sample would be available by

collecting data across the school district. In the absence of this information, it is unclear how academic performance of students in the dual language program compares to academic performance of students in monolingual classrooms and if there are any differences based on grade level.

The lack of local norms comparing students in the dual language program to "true peers" is detrimental to accurately identifying students for special education services. A concern for culturally and linguistically diverse students, including English learners, is the possibility of disproportionate representation in special education (Hosp, n.d.). According to the Illinois State Board of Education (2002), disproportionate representation in special education "refers to having significantly higher or lower percentages of [culturally and linguistically diverse students] when compared to the average percentage of students in special education and/or the percentage of Euro-American, monolingual-English speaking students in special education" (p. 1). Without local norms for students in the dual language program, school districts are at risk of identifying students as meeting the criteria for a disability when in fact they do not have a disability, overlooking a disability and not addressing it in a student's educational program, or assigning a student to an inappropriate disability category (Illinois State Board of Education, 2002). All of these possibilities could result in a significant negative impact for a student.

Context of Study

This study takes place in a large suburban unit school district with a Spanish/English dual language program. The dual language program in the school district

started in the 2008-2009 school year with kindergarten and first grade classes. In the 2015-2016 school year, there are dual language classrooms in six schools including five elementary schools and one middle school. Three of the five elementary schools are fully implemented with classes in kindergarten through fifth grade. The other two elementary schools are partially implemented with classes in kindergarten through third grade; a fourth grade class will be added in the 2016-2017 school year and a fifth grade class will be added in the 2017-2018 school year. The 2015-2016 school year is the first year in which dual language classes are offered in eighth grade; current eighth graders participated in the initial dual language cohort as first graders in the 2008-2009 school year. Participation in the dual language program is voluntary, with a lottery if there are more applicants than spots available. Priority is given to students with siblings in the dual language program. One elementary school and the middle school are magnet sites in which students across the district can attend; the dual language classrooms in the other four elementary schools only include students who live within that school's boundaries.

The dual language program follows the 80:20 model, a version of the more widely researched 90:10 model. In the 80:20 model, 80 percent of instruction is provided in Spanish and 20 percent of instruction is provided in English in kindergarten and first grade. The percentage of instruction provided in English increases by 10 percent each year until the ratio becomes 50:50 in fourth grade. In the middle school, which includes grades six through eight, the language distribution is determined by course. Prior to the 2015-2016 school year, math instruction was provided in Spanish in kindergarten through fifth grade, but a change was made to deliver math instruction in English starting in third

grade. Literacy instruction is provided in both languages simultaneously starting in kindergarten; literacy instruction also follows the Spanish to English progression of the 80:20 model. Prior to the 2014-2015 school year, literacy instruction in the dual language program utilized a sequential model. The dual language program utilizes the same curriculum as the monolingual programming, with Spanish translations and resources.

Action Research

This is an action research study rather than a traditional educational research study. In action research, school personnel accept the role of researchers and examine their own practice within their classrooms and schools (Efron & Ravid, 2013). The researcher in this study is a school psychologist in the school district in which the study takes place, currently working in two of the six schools in the school district in which there are dual language classrooms. The researcher will examine existing student academic achievement data and distribute and analyze parent surveys, but surveys will be anonymous and there will be no direct contact with participants.

According to Efron and Ravid (2013), action researchers are not concerned with whether the information gained through their studies is relevant and replicable in other settings, but rather, their goal is to improve their own practice and make positive changes in their specific settings. Although there is a strong research base establishing the positive outcomes related to dual language programs, as will be evidenced in the literature review, labeling a program as "dual language" does not automatically produce outcomes consistent with the literature. Program administrators must ensure that their programs include the essential components of dual language programs identified by the research,

and the program design must align with the social context and the needs of the specific population (Gómez, Freeman, & Freeman, 2005; Howard, Sugarman, Christian, Lindholm-Leary, & Rogers, 2007; Lindholm-Leary, 2012; Torres-Guzmán et al., 2005). Furthermore, it is recommended that programs engage in regular assessment of student progress in order to make adjustments to programs to maximize student outcomes (Hamayan et al., 2013). According to Hamayan et al. (2013), "without clear objectives, it is difficult to gauge student progress and to know whether the program is succeeding" (p. 24).

With increasing populations of English learners and traditionally low academic performance of these students, there is a need for effective educational programming for English learners that demonstrates positive outcomes and is supported by key stakeholders. This longitudinal analysis will benefit key stakeholders such as school personnel, parents, and community members by providing evidence of the program's outcomes. There will also be benefits to students, as an evaluation of outcomes will hold the school district accountable for ensuring that the dual language program is appropriately meeting student needs and students are accurately identified for additional interventions, supports, and/or special education services.

Purpose

The purposes of this mixed-method longitudinal analysis were: (1) to analyze the English academic performance of students participating in a dual language program utilizing existing reading and math data; and (2) to employ survey methods to examine parental perspectives of the dual language program. Consistent with the literature base,

the researcher hypothesized that there would be positive outcomes for both English and Spanish learners, as well as high parental satisfaction with the dual language program (Alanis & Rodriguez, 2008; Cobb, Vega, & Kronauge, 2006; Marian et al., 2013; Shneyderman & Abella, 2009; Thomas & Collier, 2012). The researcher hypothesized that any differences between academic performance of students in the dual language program in comparison to academic performance of students in monolingual programming that may be identified in early elementary school would decrease by the time students reach late elementary school and middle school due to increasing English language proficiency and number of years in the dual language program (Thomas & Collier, 2012).

Research Questions

Is there a significant difference in the reading performance of Spanish learners in the dual language program versus English learners in the dual language program versus English proficient students in monolingual programming for each cohort entering kindergarten in the 2007-2008 school year to the 2014-2015 school year?

Is there a significant difference in the math performance of Spanish learners in the dual language program versus English learners in the dual language program versus English proficient students in monolingual programming for each cohort entering kindergarten in the 2007-2008 school year to the 2014-2015 school year?

How satisfied are parents of students participating in the dual language program with the overall program, as well as with their child's academic performance and second language acquisition?

CHAPTER II

LITERATURE REVIEW

Theoretical Framework for Bilingual Education

Dual language programs are built upon a strong theoretical framework that

supports the benefits of bilingual education (Thomas & Collier, 2012). Opposition to

bilingual education can arise because its rationale is contrary to the widely held beliefs

related to language acquisition (Ovando, 2003). Ovando (2003) stated that:

Intuitively, one would think that a person learns another language by using it

frequently and by avoiding use of one's native language. While using a new

language is crucial to developing communicative and academic competence in

that language, the quality of the instructional process is equally important. (p. 16)

Cummins (1981) posited that there are two different types of language

proficiency. Basic interpersonal communication skills (BICS) include cognitively

undemanding displays of language proficiency in social situations such as basic

vocabulary and pronunciation, whereas cognitive/academic language proficiency (CALP)

refers to language skills necessary for processing and making meaning of language

independent of situational clues, which is essential for meaningful engagement in many

academic tasks. Cummins (1981) postulated that given the research findings indicating

the benefits of bilingual education programs, there must be interdependence between a

child's native language (L1) and second language (L2) CALP. Instruction in L1 promotes "the deeper cognitive and academic skills that underlie the development of literacy in both the bilingual's languages" (Cummins, 1981, p. 23). Cummins (1981) attributed this transfer to a common underlying proficiency in which experience with either language can promote development of proficiency underlying both languages.

Educators must be mindful not to focus too much attention on the external features of language (i.e. BICS), which can be deceptive, without considering the role of language in complex thought processes, which are essential for long-term academic success (Bylund, 2011; Rhodes et al., 2005). According to Bylund (2011), "if a child receives instruction in a language they have yet to master without intentional effort to build transfer between L1 and L2, their development of organized conceptual structures may be disrupted" (p. 6). Thomas and Collier (2012) indicated that research on the relationship between native language and cognition suggests that children should continue developing thinking skills in L1 until at least age 12. Research indicates that "the strongest predictor of L2 achievement is amount of L1 schooling; the more L1 grade level schooling, the higher L2 achievement" (Thomas & Collier, 2002, p. 7). When students are encouraged to lose their native language while acquiring a second language, such as in subtractive bilingual programs, they tend to struggle academically as the curriculum becomes increasingly complex (Thomas & Collier, 2012). When students develop strong oral and literacy skills in L1, these skills transfer from L1 to L2, facilitating second language acquisition (Christian et al., 2000; Lindholm-Leary, 2001). The cross-linguistic transfer of skills from L1 to L2 is possible due to common

underlying proficiency. According to Feinauer, Hall-Kenyon, and Davidson (2013),

"literacy-related abilities, the abilities crucial for success in school, are part of an

underlying proficiency that students can access in their L1 in order to gain proficiency in

related literacy skills in their L2" (p. 438).

When students continue to develop cognitively in their first language as they

acquire a second language, there are cognitive advantages such as increased flexibility in

thinking and problem solving (Thomas & Collier, 2012). In order to allow bilingualism to

exert a significant long-term effect and positively impact cognitive growth, a child must

attain a certain minimum level of proficiency in both languages (Hamayan et al., 2013;

Lindholm-Leary, 2001).

Furthermore, language learning is regarded as a sociocultural phenomenon in

which student interactions are vital to the learning process (de Jong, 2002; Thomas &

Collier, 2012). Students learn language best when language is the medium of instruction

and they have meaningful experiences in the second language that connect to existing

knowledge (Thomas & Collier, 2012). According to Christian et al. (2000), rather than

second language acquisition being the exclusive focus of instruction, such as in foreign

language programs or ESL programs, the second language is the medium of instruction in

dual language programs. In dual language programs, students simultaneously learn

language and academic content in the second language because they have a genuine need

to communicate. The interaction of native English speakers and English learners creates

an environment that fosters authentic, meaningful interactions and provides proficient

language models of each language (Christian et al., 2000). The importance of native

English speaker and English learner interactions has been emphasized for successful

second language acquisition and growth of positive cross-cultural relationships (de Jong,

2002).

History of Dual Language Programs

According to Ovando (2003), the language ideology in the United States, and

consequently the education of English learners, has been shaped by changing political,

social, and economic forces. Thomas and Collier (2012) reported that in the 1700s and

1800s, as immigrants came to the United States from a variety of regions in the world,

there was a period of openness to language diversity. In the late 1800s and during the two

world wars in the 1900s, the United States went through a period of restricting the use of

languages other than English (Thomas & Collier, 2012). Societal changes after World

War II led to the re-emergence of bilingual education (Ovando, 2003). Ovando (2003)

indicated that Fidel Castro's Cuban Revolution of 1959 prompted the first two-way

bilingual education program in 1963. Cuban refugees who settled in Miami envisioned

that they would only be in the United States for a short period of time prior to returning to

Cuba, so they established a program at Coral Way Elementary School in which 50% of

instruction was provided in English and 50% of instruction was provided in Spanish

(Ovando, 2003; Thomas & Collier, 2012). After the success of this program, bilingual

education spread to many other states in the country (Thomas & Collier, 2012).

In Canada, the first bilingual immersion school was created in 1963 for English speakers to learn in both English and French (Thomas & Collier, 2012). Unlike the two-way dual language program in Florida, which included both English learners and Spanish learners, the program in Canada utilized a one-way model in which only one language group (e.g. French learners) is instructed in two languages (Thomas & Collier, 2012). This program "has spread throughout Canada and to this day remains dramatically successful, demonstrating that students can study the curriculum using the non-majority language at least half of the instructional time with no loss to academic success in their primary language" (Thomas & Collier, 2012, p. 10).

When educators in the United States heard about the success of dual language programs in Canada, they started implementing different forms of the Canadian model in schools throughout the country (Thomas & Collier, 2012). According to the Illinois Resource Center (2012), there are 19 school districts in Illinois, where this research study takes place, with dual language programs. Despite research clearly indicating that quality bilingual programs promote academic success, bilingual education continues to be controversial in the United States (Ovando, 2003). In June 1998, California voters passed Proposition 227, which directed that English should be the primary medium of instruction for English learners, posing a threat to bilingual education programs (Lindholm-Leary, 2001; Ovando, 2003). Current policies in states such as Arizona and California continue to severely restrict bilingual education programs (Marian et al., 2013). Advocates for bilingual education must continue to dispel misconceptions and demonstrate that

bilingual education is a theoretically sound and effective method of educating both English learners and students proficient in English (Ovando, 2003).

Goals and Essential Components of Dual Language Programs

Educators in the United States are faced with challenges related to student populations with increasing linguistic diversity, and bilingualism is increasingly recognized as a valuable ability; dual language programs offer opportunities for both English learners and students proficient in English (Christian et al., 2000). According to Lindholm-Leary (2005), the goals of dual language programs are for students to develop high levels of literacy and oral language skills in both English and the partner language, demonstrate academic achievement at or above grade level in both languages, and exhibit positive attitudes toward school, themselves, and other cultures. Dual language programs emphasize the development of language, academics, and cultural competence (Christian et al., 2000; Lindholm-Leary, 2012). Howard et al. (2007) indicated that "in dual language programs, the need for a clear commitment to a vision and goals focused on bilingualism, biliteracy, and multicultural competence has been demonstrated in studies" (p. 23).

Dual language programs include several non-negotiable components: (a) instruction takes place in two languages, with the partner language used for a minimum of 50% of the students' instructional day; (b) students and teachers use only one language at any given class/time period without concurrent translation; and (c) students participate

in the program for a minimum of six years (Lindholm-Leary, 2005; Thomas & Collier, 2012; Torres-Guzmán et al., 2005).

Thomas and Collier (2012) reported that instruction in the partner language must occur for at least 50% of the instructional day in order to accomplish the goal of full proficiency in both languages because "students have greater access to English outside of school as well as inside school" (p. 33). Traditionally, research indicates that dual language programs should separate the two languages for optimal language development because language switching can allow students to "tune out" while their non-dominant language is being used because they know that instruction will be repeated in the other language (Collier et al., 2006; Lindholm-Leary, 2001; Thomas & Collier, 2012). Finally, in order to reach grade level academic achievement in a second language, research clearly indicates that all students must receive "a minimum of six years of high quality, grade level, cognitively challenging academic work through the two languages" (Collier et al., 2006, p. 27). Native language instruction helps English learners reach full cognitive maturity and accelerates their growth in order to catch up and keep up with the academic performance of their peers who are proficient in English (Collier et al., 2006).

The first and third non-negotiable components are generally agreed upon, but there have been some more recent updates to the second non-negotiable component which advocates for strict separation of languages. According to Escamilla et al. (2014), an increasing number of scholars currently argue that strictly separating languages is not always appropriate. Dual language teachers should purposefully utilize cross-language

strategies, which should not be confused with concurrent translation, which should still not be utilized in a dual language classroom. Escamilla et al. (2014) provided the following definitions:

> Concurrent translation involves continuous and direct translation of statements, instructions or concepts from one language to another, which often results in students tuning in only to the language in which they are most proficient. Making cross-language connections is a strategic method used by a teacher to help students connect what they know in one language with what they are learning in another. (p. 8)

> Escamilla et al. (2014) advocate for continued use of strong language models and opportunities for practicing and using language, but conclude that dual language teachers must be able to examine or reference both languages in a single environment in order for students to truly become biliterate. Hamayan et al. (2013) recommend crafting opportunities to draw students' attention to cross-linguistic similarities and differences to boost metalinguistic awareness and encourage students to utilize resources of both English and the partner language when reading, learning new skills, or solving problems. For example, when a student is in the early stages of learning to read in his/her second language and he/she has difficulty reading a new word, the dual language teacher may encourage the student to think about how they would figure out a new word in their native language.

Furthermore, dual language teachers should utilize bridging, which is, "a time when connections are made about content and language through the active use of two languages" (Hamayan et al., 2013, p. 96). Bridging gives students English vocabulary for lessons taught in the partner language, and vice versa (Hamayan et al., 2013). Bridging recognizes that because bilinguals transfer what they learn in one language to the other language, they need opportunities to attach language to content but do not have to re-learn content in each language (Beeman & Urow, 2013). According to Escamilla et al. (2014), "Creating space for bilingualism and the strategic use of language is not meant to replace the need to spend significant amounts of time focusing on only one language at a time" (p. 69). Cross-language strategies and bridging do not negate the second non-negotiable component, but rather they indicate that the second non-negotiable component should be interpreted as the exclusion of concurrent translation, not the exclusion of any language mixing.

Additionally, effective dual language programs have a cohesive, school wide vision and positive school environment, effective leadership and administrative support, academically challenging curriculum that aligns with standards and assessment, a strong and ongoing program planning process, assessment and accountability, high-quality teachers, and family and community involvement (Howard et al., 2007; Lindholm-Leary, 2001; Lindholm-Leary, 2005). These factors create a framework for effective language education programs, and "the results of extant research clearly show that a successful

program requires careful consideration of many effective features to attain success"
(Howard et al., 2007, p. 40).

Effectiveness of Dual Language Programs

Several researchers have examined the effectiveness of bilingual education, but
Thomas and Collier (1997) were some of the first researchers to conduct a study
examining English learners' long-term performance by type of bilingual program being
offered. Long-term achievement of English learners from 1982 to 1996 was analyzed in
six types of bilingual programs: (a) dual language; (b) maintenance; (c) transitional
bilingual along with content-based ESL; (d) transitional bilingual along with pullout
ESL; (e) content-based ESL only; and (f) pullout ESL only. Thomas and Collier (1997)
found that all programs produced initial, positive, short-term gains in English reading
skills, but dual language programs produced the best long-term outcomes.

Thomas and Collier (2002) conducted another five-year research study in five
urban and rural research sites across the country to examine the types of United States
school programs provided for English learners from 1996 to 2001. Results of this study
confirmed findings of the 1997 study. Dual language programs were the only programs
that assisted students in reaching the 50th percentile in both L1 and L2 in all subjects.
Students maintained that level of high achievement, or reached even higher levels of
achievement, through the end of the schooling, and the fewest number of dropouts came
from dual language programs. Native English speakers in dual language programs
maintained their English while adding a second language and achieved well above the

50th percentile in all subject areas on norm-referenced tests in English. Additionally, native English speakers in dual language programs performed at or above their comparison groups being schooled in monolingual classrooms on all measures (Thomas & Collier, 2002). Thomas and Collier (2002) concluded that the findings of their studies had major implications for parents of English learners and school staff. According to Thomas and Collier (2002):

> Parents who refuse bilingual/ESL services for their children should be informed that their children's long-term academic achievement will probably be much lower as a result, and they should be strongly counseled against refusing bilingual/ESL services when their child is eligible. (p. 318)

Thomas and Collier (2012) indicated that placement in all-English instruction in a mainstream classroom is the "worst choice the community can make for the English learner" (p. 27). Many English learners instructed in mainstream English settings drop out before completing high school, and those who stay in school are among the lowest achievers, performing at the 9th-12th percentile (Thomas & Collier, 2012). According to Rhodes et al. (2005), research has demonstrated that students instructed in bilingual programs, such as dual language, that allow them to maintain their first language achieve at or above the national norm on standardized academic assessments. Unfortunately, relatively few English learners are instructed in these programs in comparison to those educated in ESL, transitional, and English-only settings (Rhodes et al., 2005).

A number of studies have examined academic performance outcomes of students in dual language programs with resoundingly positive results for both English learners and learners of the partner language. Lindholm-Leary and Borsato (2005) concluded that the Hispanic students participating in their study were more successful than the average Hispanic students depicted in the literature. Students instructed in a dual language program throughout elementary school scored at grade level in math in high school, and they were taking higher level college preparation math courses and earning mainly average grades in those courses (Lindhom-Leary & Borsato, 2005). On state-mandated tests of English academic skills, research has indicated that students in dual language programs perform at or above the performance of their peers in monolingual classrooms; these findings are contrary to the claim that instruction in a second language distracts students from mastering core academic subjects (Alanis & Rodriguez, 2008; Cobb, Vega, & Kronauge, 2006; Marian et al., 2013; Shneyderman & Abella, 2009).

Research shows that in dual language settings, it takes an average of six years to reach grade level curricular mastery in a second language (Thomas & Collier, 2012). De Jong (2002) found that English learners in a dual language program were well above the state and district average when compared to other English learners, but their scores in fifth grade were still below those of native English speakers in the district and state. Research studies may demonstrate lower academic outcomes in earlier grades, but benefits generally become apparent as students progress in the program (Thomas & Collier, 2012). Lindholm-Leary and Borsato (2005) found that Hispanic students in the

dual language program were below average on standardized assessments of academics in second grade but demonstrated average to above average performance in sixth and ninth grades. Alanis and Rodriguez (2008) reinforced the concept that substantial differences in program effects become cumulatively larger as students move past third grade when the curriculum becomes cognitively more intricate. The length of time participating in a dual language program is positively correlated with student academic achievement (Alanis & Rodriguez, 2008). According to Lindholm-Leary (2001), by sixth and seventh grade, on average, both English learners and Spanish learners in dual language programs perform at least at grade level in academic achievement assessments.

Although most dual language research has been conducted on Spanish/English programs, research studies have also investigated dual language programs with partner languages other than Spanish. Padilla, Fan, Xu, and Silva (2013) studied the listening/oral, reading, and writing progress in Mandarin of English learners and Mandarin learners in a Mandarin/English dual language program. The authors found that when compared to peers in monolingual classes, both English learners and Mandarin learners performed as well on standardized academic tests in English (Padilla et al., 2013). Similarly, Bae (2001) studied the writing performance of students in a Korean/English dual language program and found that by second grade, English writing skills of the students in the program were comparable to those of students in monolingual English classes. Research supports the benefits of dual language programs for student academic performance regardless of the students' background characteristics, program

type, or school characteristics (Lindholm-Leary, 2001). The effectiveness of bilingual education, particularly dual language programs, on student academic outcomes has been established by a strong literature base.

Parental Perspectives of Dual Language Programs

Researchers have examined teacher perspectives and student perspectives of dual language programs (Alanis & Rodriguez, 2008; Bearse & de Jong, 2008; Lindholm-Leary & Borsato, 2005; Torres-Guzmán et al., 2005). Although the buy-in of teachers and students is also crucial to the success of dual language programs (Thomas & Collier, 2012), in this study, the researcher focused on parental perspectives. Parents are key stakeholders that must be one of the first groups exposed to the research and rationale for dual language programs for children from diverse linguistic backgrounds, as parents are essential to the sustainability and success of dual language programs (López, 2013; Thomas & Collier, 2012). Some parents of English learners reject bilingual education services due to fear that their child will continue to lack proficiency in English because they are only learning in their native language (Rhodes et al., 2005). In some cases, school personnel do not provide parents with enough communication or accurate information regarding educational programming, leading to misconceptions and difficulties making informed decisions (Rhodes et al., 2005; Sheffer, 2003).

Parents choose to place their children in dual language programs for a variety of reasons. López and Tápanes (2011) found bilingualism was a key motivation for Latino parents enrolling their children in a Spanish/English dual language program in the

northeastern United States. Parents reported facing the "personal battle" of maintaining

the child's native language while understanding the importance of becoming proficient in

English. López and Tápanes (2011) reported that "many of these families have relatives

still living in the home country, providing a level of motivation for their children to learn

and continue to speak the home language" (p. 157). Several other research studies have

also cited maintenance of native language and culture as a parental motivation for

Spanish-speaking parents for enrolling their children in a dual language program. Other

widely cited reasons for selecting dual language programs for both English and Spanish-

speaking parents are the desire for children to be bilingual and biliterate, as well as

academic and career advantages (Gerena, 2010; Giacchino-Baker & Piller, 2006;

Lindholm-Leary, 2001; Lopez, 2013; Shannon and Milian, 2002).

The majority of researchers examining parents' perspectives of dual language

programs utilized survey methods (López, 2013). Several research studies on parental

perspectives of dual language programs have concluded that parents perceive dual

language programs as having a positive impact on their children's bilingualism, as well as

on their education and preparation for the future (Giacchino-Baker & Piller, 2006).

Giacchino-Baker and Piller (2006) surveyed parents of kindergarteners and first graders

in a Spanish/English dual language program in California to examine attitudes,

motivation, support, and commitment behind parents' decisions to enroll their children in

the program. Although the program was only two years old, survey results indicated that

parents were committed to the program, saw benefits to their children's participation in

the program, and believed the program would enable their children to be both

academically successful and bilingual. Parents were willing to take on challenges such as

bilingual homework and transporting their children to the program (Giacchino-Baker &

Piller, 2006). Shannon and Milian (2002) presented the results of a survey of parents

whose children participated in dual language programs in Colorado. The authors of this

study concluded that both English- and Spanish-speaking parents provided strong support

for dual language programs. Parents understood the purpose of the programs, believed

participation in the program was their choice, felt it was important to learn a second

language, and believed the program was effective in teaching a second language

(Shannon & Milian, 2002).

Thomas and Collier (2012) suggested that with increased parental understanding

of the program's processes as their children progress in the program, initial anxieties

diminish and parents often become the program's greatest advocates. In a survey of

parents of students in a dual language program, Lindholm-Leary (2001) found that

parents were very satisfied with the program and would recommend the program to other

parents, but there were differences in satisfaction by the children's grade level. Parents of

kindergarteners were most satisfied, followed by parents of children in grades six through

eight. Lindholm-Leary (2001) hypothesized that the decline in parental satisfaction

around second grade was due to the fact that children in the program did not begin formal

English reading until third grade, and parents may have been concerned that their

children would fall behind in reading in English. "By grades 6-8, parents are not at all

concerned; they know their children can do all their academic work in English"

(Lindholm-Leary, 2001, p. 167). Overall, despite the existence of challenges, researchers

have indicated that dual language programs are supported by parents.

Challenges and Special Considerations

Researchers must keep in mind that it is essentially impossible to control for all of

the factors impacting bilingual education outcomes (Ovando, 2003).

A number of variables can have a negative effect on the outcome of a particular

bilingual program: the number of qualified bilingual teachers, parental support,

administrative support, material resources, time allocation for the child's first

language and the second language, the sociocultural and educational background

of the community, and the general school curriculum and climate. (Ovando, 2003,

p. 17)

Additionally, some programs are inaccurately labeled as dual language programs

when they do not meet the basic criteria (Torres-Guzmán et al., 2005). Simply calling a

program dual language and utilizing some components of the model will not

automatically result in positive outcomes for students (Lindholm-Leary, 2012).

According to Thomas and Collier (2012), in order to demonstrate the positive outcomes

described by the literature, dual language programs must demonstrate fidelity to the non-

negotiable and critical components of well-implemented dual language programs. There

is a significant difference in long-term outcomes of poorly implemented dual language

programs versus well-implemented dual language programs (Thomas & Collier, 2012).

Lindholm-Leary (2012) discussed several factors that can impact the quality of dual language programs including issues related to program design, accountability, and curriculum and instruction. When planning for implementation of a dual language program, program administrators have countless decisions to make regarding program design (Thomas & Collier, 2012). According to Thomas and Collier (2012), in terms of the amount of instructional time spent in each language, the 90:10 and 50:50 ratios are most commonly utilized. The 90:10 model starts with 90% of instruction in the partner language and 10% of instruction in English; instructional time in English is gradually increased as students progress in the program until reaching a 50:50 ratio. Research indicates that the 90:10 model provides a stronger foundation for the partner language without negatively impacting achievement in English (Thomas & Collier, 2012). Although research has found that students in 90:10 dual language programs, where students receive minimal exposure to English in the primary grades, demonstrate adequate levels of academic performance, pressure from administrators and educators who are unfamiliar with the research may lead to greater allocation to English instruction (Lindholm-Leary, 2012). Many decisions regarding 90:10 or 50:50 are impacted "by the attitudes regarding the model that the community is prepared to support" (Thomas & Collier, 2012, p. 30). Additionally, program administrators must determine whether to grow the program grade by grade or implement several grades in a year (Thomas & Collier, 2012), how to select and enroll students in the program, and what grade levels in

which the program will be implemented; there is wide variety in program designs as these decisions are all impacted by local policy and practice (Christian et al., 2000).

Similarly, accountability requiring English learners to make adequate yearly progress on state assessments can be problematic because research shows that English learners may need five to seven years to close the gap between their academic assessment scores and those of their English proficient peers (Thomas & Collier, 2002). According to Lindholm-Leary (2012), evaluations conducted in the primary grades of a dual language program have often revealed that students in dual language programs scored below grade level. The apparent lack of progress can lead administrators to prematurely add more English instruction or even eliminate the dual language program (Lindholm-Leary, 2012).

Finally, dual language programs have unique challenges related to biliteracy and bilingual language development. According to Beeman and Urow (2013), "teaching for biliteracy in Spanish and English in the United States is unlike teaching for English literacy to monolingual English speakers in the United States and unlike teaching for Spanish literacy in Spanish-speaking countries" (p. 1). Because accountability is generally measured in English, language proficiency and partner language skills may be viewed as an added benefit but not a critical component (Lindholm-Leary, 2012). According to Lindholm-Leary (2012), "state and local standards and corresponding curricula are developed for teaching students through one language; thus they do not provide assistance in how to promote literacy in two languages" (p. 260). While the literature base is increasing, there is still a paucity of research on how to promote

bilteracy (Lindhom-Leary, 2012). Howard and Sugarman (2009) discussed the benefits and challenges of a variety of approaches to literacy instruction in dual language programs. Initial literacy instruction can be provided in a simultaneous (i.e. all students learn to read in both languages simultaneously) or a sequential model (i.e. all students learn to read in the partner language first or all students learn to read in their native language first) (Howard & Sugarman, 2009; Lindholm-Leary, 2005; Thomas & Collier, 2012). Program administrators must take a variety of issues into consideration when selecting an approach to literacy instruction such as staffing, purchasing materials and resources, communicating with parents, staff, and the community, and providing professional development for staff members (Howard & Sugarman, 2009).

In this study, the researcher examined long-term outcomes of the district's dual language program, but it was not be possible to soundly identify specific reasons for the outcomes or components of the program impacting outcomes. Once long-term outcomes of the district's dual language program are better understood, examination of program implementation and integrity may be a direction for future action research.

CHAPTER III

METHOD

Setting

The school characteristics for the six schools that currently house dual language classrooms are depicted in Table 1, and the student demographics for each of the six schools are listed in Table 2 (Northern Illinois University, 2014).

Table 1

School Characteristics

	Elem. School 1	Elem. School 2	Elem. School 3	Elem. School 4	Elem. School 5	Middle School 1
Dual Language Grades	K-5	K-5	K-5	K-3	K-3	6-8
Enrollment	608	628	526	643	540	882
Meets/Exceeds Standards on State Test	73.0%	72.0%	83.0%	76.0%	84.0%	76.0%

Table 2

Student Demographics

	Elem. School 1	Elem. School 2	Elem. School 3	Elem. School 4	Elem. School 5	Middle School 1
Free/ Reduced Lunch	26.2%	23.7%	13.3%	19.4%	14.4%	22.9%
English Learners	17.4%	12.4%	14.3%	5.9%	12.4%	6.0%
Students with Disabilities	7.2%	8.9%	8.6%	12.0%	10.4%	8.7%
White	53.6%	58.0%	62.9%	73.4%	52.2%	54.3%
Black	8.6%	8.1%	1.5%	7.8%	5.7%	7.6%
Hispanic	19.6%	16.9%	18.1%	11.2%	10.9%	14.6%
Asian	14.3%	13.1%	13.3%	3.3%	26.9%	20.2%
American Indian	0.0%	0.2%	0.0%	0.3%	0.2%	0.2%
Two or More Races	3.9%	3.8%	4.0%	4.0%	3.9%	3.1%
Pacific Islander	0.0%	0.0%	0.2%	0.0%	0.2%	0.0%

It is important to note that Elementary School 3 and Middle School 1 are magnet sites for the dual language program, indicating that they include students from across the district, while the dual language classrooms at Elementary School 1, Elementary School 2, Elementary School 4, and Elementary School 5 only include students living within the school's boundaries. Additionally, the dual language program's elementary magnet site was initially at a different school within the district but moved to the current school at the start of the 2013-2014 school year; school characteristics listed for Elementary School 3 are for the school in which the program was housed in 2013-2014 and 2014-2015. The dual language program is a strand within each school, indicating that there are dual language classrooms housed in schools with predominantly monolingual programming. Although the schools in this study have some differences in school characteristics and student demographics, they are all fairly high achieving academically, as evidenced by the overall percentage of students meeting or exceeding standards on the state test.

Participants

The researcher analyzed existing reading and math data of three groups of students: (a) Spanish learners in the dual language program; (b) English learners in the dual language program; and (c) English proficient students in monolingual programming. Each of the three groups only included data from students who have been members of the cohort for the entire time period. Therefore, students who moved into or out of the district or dual language or monolingual programming were excluded from the study.

The first group, Spanish learners in the dual language program, included all students starting in the dual language program in kindergarten (with the exception of the

2007-2008 cohort who entered in first grade) and in the dual language program through the 2014-2015 school year who were identified as Spanish learners (i.e. never identified as English learners on the ACCESS for ELLs test) in kindergarten. The ACCESS for ELLs (Assessing Comprehension and Communication in English State-to-State for English Language Learners) is an English language proficiency assessment given to students identified as English learners (WIDA, 2014). Table 3 indicates the number of participants in this group in each cohort, as well as percentages of students with free/reduced lunch and students with disabilities.

Table 3

Spanish Learners in Dual Language

	Number of Participants	Free/Reduced Lunch	Students with Disabilities
2007-2008 Cohort	15	20.0%	0.0%
2008-2009 Cohort	24	12.5%	4.2%
2009-2010 Cohort	23	17.4%	4.3%
2010-2011 Cohort	26	11.5%	0.0%
2011-2012 Cohort	25	8.0%	0.0%
2012-2013 Cohort	50	10.0%	4.0%
2013-2014 Cohort	44	36.4%	13.6%
2014-2015 Cohort	60	36.7%	8.3%

Note: Free/reduced lunch and students with disabilities percentages were determined based on status during the 2014-2015 school year.

The second group, English learners in the dual language program, included all students starting in the dual language program in kindergarten (with the exception of the 2007-2008 cohort who entered in first grade) and in the dual language program through the 2014-2015 school year who were ever identified as English learners based on the ACCESS for ELLs test. Table 4 indicates the number of participants in this group in each cohort, as well as percentages of students with free/reduced lunch and students with disabilities. It is noteworthy that a significant portion of students in this group have free/reduced lunch status.

Table 4

English Learners in Dual Language

	Number of Participants	Free/Reduced Lunch	Students with Disabilities
2007-2008 Cohort	20	90.0%	5.0%
2008-2009 Cohort	14	92.9%	7.1%
2009-2010 Cohort	19	100.0%	10.5%
2010-2011 Cohort	31	83.9%	16.1%
2011-2012 Cohort	31	96.8%	12.9%
2012-2013 Cohort	33	78.8%	6.1%
2013-2014 Cohort	45	33.3%	11.1%
2014-2015 Cohort	43	32.6%	9.3%

Note: Free/reduced lunch and students with disabilities percentages were determined based on status during the 2014-2015 school year.

Many students identified as English learners eventually become "English proficient" based on their ACCESS for ELLs scores, but for this study, students in this group included any student who was ever identified as an English learner, regardless of current status. Table 5 indicates the percentage of students in this group in each cohort identified as English learners at the start of each school year. As expected, percentages of students who continue to be identified as English learners decrease as students progress in their education.

Table 5

Percentage of English Learners in "English Learners in Dual Language" Group

	2007-2008	2008-2009	2009-2010	2010-2011	2011-2012	2012-2013	2013-2014	2014-2015
2007-2008 Cohort	100%	100%	100%	95%	85%	75%	35%	35%
2008-2009 Cohort		100%	100%	100%	100%	79%	57%	29%
2009-2010 Cohort			100%	100%	100%	95%	68%	58%
2010-2011 Cohort				100%	97%	97%	90%	52%
2011-2012 Cohort					97%	94%	90%	90%
2012-2013 Cohort						97%	97%	97%
2013-2014 Cohort							100%	100%
2014-2015 Cohort								100%

Note: Percentages indicate the percentage of students ever identified as English learners on the ACCESS for ELLs test that were still identified English learners at the start of each school year.

In the third group, English proficient students in monolingual programming, English proficient students were defined as students who have never been identified as English learners on the ACCESS for ELLs test. In this study, the researcher did not break up the students in monolingual programming into English proficient and English learners because the sample of English learners in monolingual programming was too small in some schools to make comparisons. Furthermore, it is likely that there are differences in native language and language proficiency of English learners placed in the dual language program versus English learners placed in monolingual programming.

For the purposes of comparing groups, the third group, English proficient students in monolingual programming, was created using systematic sampling. In systematic sampling, the sample is selected in a systematic way from the population (Efron & Ravid, 2013). For each cohort, all English proficient students in monolingual programming at each of the six schools in the district that currently house dual language classrooms were listed by school and ordered by assigned research identification number. In each school, every fifth student was selected to create the English proficient students in monolingual programming group for each cohort. This allowed for more equal group sizes for statistical analyses. For Elementary School 3, the English proficient students in monolingual programming group was created using students from the elementary school that currently houses the dual language program, not from the elementary school where the dual language program was initially housed. This was done in order to have one consistent group of students rather than creating a group of students from the initial elementary school and then creating a second group of students from the current

elementary school upon the transfer of the dual language magnet site. Similarly, for the 2007-2008 and 2008-2009 cohorts, the English proficient students in monolingual programming group was created using only students who went to Elementary School 1 and then to Middle School 1. The other elementary schools with dual language programs in those cohorts do not feed into Middle School 1, so students in monolingual programming would attend different middle schools. Table 6 indicates the number of participants in the English proficient students in monolingual programing group in each cohort, as well as percentages of students with free/reduced lunch and students with disabilities.

Table 6

English Proficient Students in Monolingual

	Number of Participants	Free/Reduced Lunch	Students with Disabilities
2007-2008 Cohort	14	7.1%	14.3%
2008-2009 Cohort	10	20.0%	10.0%
2009-2010 Cohort	20	0.0%	5.0%
2010-2011 Cohort	23	4.3%	8.7%
2011-2012 Cohort	25	16.0%	12.0%
2012-2013 Cohort	47	14.9%	21.3%
2013-2014 Cohort	56	42.9%	12.5%
2014-2015 Cohort	62	27.5%	6.5%

Note: Free/reduced lunch and students with disabilities percentages were determined based on status during the 2014-2015 school year.

For the survey component, the researcher utilized a convenience sample, indicating that participants were drawn from what was convenient or available (Andres, 2012). In this case, the convenience sample included all parents of students in the dual language program in the targeted school district. Furthermore, the researcher utilized a volunteer sample, as parents of students in the dual language program self-selected to participate in the survey. Such a sampling method runs the risk of including participants who are not representative of the population at large, but nearly all studies are volunteer samples as it would be unethical to force individuals to participate in a research study (Andres, 2012).

Instruments

Academic Assessments

The instruments that the researcher utilized to assess reading and math performance were district-wide and/or state-wide assessments used by the targeted school district. Although practitioners do not necessarily have control over the district-wide and state-wide assessments administered to students (Efron & Ravid, 2013), these assessments are important. In practice, performance on these assessments is considered when identifying students for interventions, supports, and special education services. The instruments that were used vary in the type of assessment and targeted area(s) of assessment, but they all were employed in this study to create a more comprehensive picture of student outcomes. According to Efron and Ravid (2013), "as educators, we understand that a combination of different assessment tools will provide a richer, more holistic insight into each student's work" (p. 161).

The reading assessment data by instrument and grade level that were analyzed for the three groups of students in each cohort is depicted in Table 7. The math assessment data by instrument and grade level that were analyzed for the three groups of students in each cohort is depicted in Table 8. Because assessments were all initially administered by the school district at various times and starting at different grade levels, the assessment data available for each cohort of students differed. Cohorts are labeled based on the school year during which they entered kindergarten.

Table 7

Reading Assessment Data

	Fountas and Pinnell	Performance Series Reading	ISAT Reading	PARCC Reading
2007-2008 Cohort		5th, 6th, 7th	3rd, 4th, 5th, 6th	7th
2008-2009 Cohort		4th, 5th, 6th	3rd, 4th, 5th	6th
2009-2010 Cohort		3rd, 4th, 5th	3rd, 4th	5th
2010-2011 Cohort		2nd, 3rd, 4th	3rd	4th
2011-2012 Cohort		2nd, 3rd		3rd
2012-2013 Cohort	2nd	2nd		
2013-2014 Cohort	1st			
2014-2015 Cohort	K			

Table 8

Math Assessment Data

	ISAT Math	PARCC Math
2007-2008 Cohort	3rd, 4th, 5th, 6th	7th
2008-2009 Cohort	3rd, 4th, 5th	6th
2009-2010 Cohort	3rd, 4th	5th
2010-2011 Cohort	3rd	4th
2011-2012 Cohort		3rd

Fountas and Pinnell. According to Heinemann (n.d.), the Fountas and Pinnell

(F&P) Benchmark Assessment System is a formative reading assessment intended to

measure decoding, fluency, vocabulary, and comprehension skills. This assessment

consists of 58 books divided evenly between fiction and nonfiction. It is administered to

students individually for use in determining students' developmental reading levels

(Book Levels A-Z). In a formative evaluation conducted in different regions across the

United States, test-retest reliability was assessed by correlating reading scores on the

fiction series with scores on the nonfiction series; the reliability coefficient of .97

indicated the assessment's information is stable, consistent, and dependable. Studies

found strong convergent validity between the reading accuracy rate of F&P Benchmark

System 1 (Book Levels A-N) and the accuracy rate of the texts used for assessments in

the Reading Recovery intervention. There was moderate convergent validity between the

F&P Benchmark System 2 (Book Levels L-Z) and other literacy assessments

(Heinemann, n.d.). For the purposes of analysis, alphabetic instructional reading levels

were assigned numerical values. The F&P was administered to students in the research

study in kindergarten through fifth grade starting in the 2013-2014 school year.

Unfortunately, starting in third grade, this assessment was administered to all students in

the fall, but only to students who were below grade level expectations in the spring.

Furthermore, data from the 2013-2014 school year was extremely inconsistent; therefore,

the researcher only analyzed F&P data for kindergarten, first grade, and second grade in

the 2014-2015 school year.

Performance Series. According to the Scantron Corporation (2004), the

Performance Series is a computer adaptive assessment intended to measure the different

academic objectives of individual state standards. It provides teachers with learning

objectives a student has not mastered, as well as the academic growth demonstrated by

individuals and groups of students. The Performance Series Reading "assesses students'

ability to read passages similar to those they read in school or in outside books, providing

an authentic context for comprehension" (Scantron Corporation, 2004, p. 8). Items are

grouped into four units: Vocabulary, Fiction, Nonfiction, and Long Passages. Because

this assessment utilizes computer adaptive testing, where examinees are exposed to

different items, reliability is reported through standard error of measurement; the majority

of the tests are completed with a standard error of measurement less than .30. The

technical manual reported procedures to ensure item and sampling validity, and

concurrent validity was reported as moderate to strong (Scantron Corporation, 2004). The

Performance Series Reading was administered to students in the research study in second

through seventh grade in fall and spring starting in the 2012-2013 school year.

Illinois Standards Achievement Test (ISAT). According to the Illinois State

Board of Education (2014), the ISAT was the state assessment aligned with the Illinois

Learning Standards for reading and math developed by Illinois educators using a rigorous

process. The purpose of this assessment was to evaluate individual, school, and district

performance relative to state standards. Starting with the 2013 ISAT, the assessment

included items in the content areas of reading and math written to measure the Common

Core State Standards (CCSS). The assessment included multiple-choice and extended-

response/short-response items. Students' overall scale scores were placed in one of the

four performance categories: (a) Exceeds Standards; (b) Meets Standards; (c) Below

Standards; (d) Academic Warning (Illinois State Board of Education, 2014).

According to the 2011 Technical Manual, ISAT tests have alpha coefficients

around or above .90, indicating high reliability (Illinois State Board of Education, 2011).

Procedures were reported for inter-rater agreement for extended-response items; the inter-

rater agreements on extended-response items were generally in the mid 90 to 100%.

Adequate content, construct, and concurrent validity were reported (Illinois State Board

of Education, 2011). Evidence of each year's ISAT's technical adequacy was provided in

the corresponding technical manual. The ISAT Reading and Math assessments were

administered to students in the research study in third through sixth grade in the spring of

the 2010-2011 to the 2013-2014 school years. This assessment was discontinued for the

2014-2015 school year with the introduction of the Partnership for Assessment of Readiness for College and Careers (PARCC) assessment.

Partnership for Assessment of Readiness for College and Careers (PARCC). According to the Illinois State Board of Education (2015), the PARCC test serves as the state's new annual test, replacing the ISAT, to evaluate individual, school, and district outcomes. It consists of the Performance-Based Assessment (PBA) and the End-of-Year Assessment (EOY) in English Language Arts (ELA) and Math. The PARCC assessment is designed to measure the academic standards in the English Language Arts and Math Common Core State Standards (Illinois State Board of Education, 2015). The Partnership for Assessment of Readiness for College and Careers (2015) indicated that on the ELA assessment, students are required to read and analyze passages from real fiction and nonfiction texts, watch videos, and listen to audio, and they demonstrate knowledge gained through writing. On the math assessment, students solve multi-step math problems that address real-world situations and require reasoning rather than simply demonstrating rote procedures (Partnership for Assessment of Readiness for College and Careers, 2015).

According to the Illinois State Board of Education (2015), PARCC developers utilized principles of evidence-centered design to ensure the tests have construct validity; standards were identified, evidence statements were developed for the standards, and test questions and tasks were developed to produce the evidence. Field-testing was conducted in spring 2014. Full administration occurred in spring 2015, and performance levels were determined in summer 2015 (Illinois State Board of Education, 2015). The PARCC tests

were administered to students in the research study in third through seventh grade during the 2014-2015 school year.

Survey

The purpose of the survey was to bolster understanding of program outcomes as perceived by a group of key stakeholders, parents of students in the dual language program. Parental perspectives of the dual language program are just as critical when evaluating programs as academic outcomes because parents are essential to the sustainability and success of dual language programs (López, 2013; Thomas & Collier, 2012). The majority of researchers examining parental perspectives of dual language programs have utilized surveys (López, 2013). According to Efron and Ravid (2013), surveys are one of the most common and efficient methods of collecting data, particularly on a large-scale. In education, survey results can assist educators in making informed decisions (Efron & Ravid, 2013).

In this study, the survey consisted of four close-ended demographic questions and five open-ended questions regarding parental satisfaction and perceptions of the dual language program. The survey was provided in English (see Appendix A) and Spanish (see Appendix B) and distributed via email with a link to an online survey created with Survey Monkey and in paper form via backpack mail in order to maximize response rate.

Procedures

Quantitative Method Procedures

The researcher received existing reading and math data and demographic information from the 2007-2008 to the 2014-2015 school years from the district director

of research and analytics, who accessed the information in district databases. The district director of research and analytics assigned a unique research identification number to each student prior to sending information to the researcher. The researcher entered data into SPSS software for analysis.

Survey Method Procedures

The link to the online version of the survey was sent via email to all parents of students in the dual language program with email addresses listed in the district's student information system. The paper version of the survey was distributed to dual language teachers to send in backpack mail to parents of students in the dual language program who did not have email addresses listed in the district's student information system. Completed paper surveys were returned in a sealed, pre-addressed envelope by the students to the dual language teachers and sent via interoffice mail to the researcher. Participation in the survey was anonymous and voluntary.

A follow-up email with a link to the online version of the survey was sent to parents of students in the dual language program with email addresses listed in the district's student information system two weeks after the online version of the survey was originally distributed. The online survey was closed and completed copies of the paper survey were not accepted after three weeks from the original distribution date.

Research Design and Analysis

Embedded-Design Research

In this mixed-methods study, the researcher utilized embedded-design research in which both quantitative and qualitative methods of data collection were included, but one

paradigm, in this case the quantitative design, dominated the study (Efron & Ravid, 2013). The researcher utilized the embedded experimental model with sequential timing; qualitative data was collected as a second phase of the study, as the independent variable already occurred and quantitative data already existed (Creswell & Plano Clark, 2011).

For the quantitative component, the researcher used causal-comparative research. Causal-comparative research examines causal relationships between something that occurred in the past and subsequent responses, but there is no planned intervention because either the independent variables cannot be manipulated or have already occurred prior to the start of the study (Efron & Ravid, 2013). The independent variables in this study, dual language program versus monolingual program, cannot be manipulated and already occurred at the time of the study. The qualitative component, a survey of parents of dual language students including open-ended questions, was intended to supplement the quantitative analysis of academic outcomes in order to better understand overall program effectiveness. The results of the survey would not be as meaningful or useful for stakeholders evaluating program effectiveness without any quantitative analysis of academic data. Although parental perspectives are not directly linked to academic outcomes, both parental perspectives and academic outcomes are critical factors when examining overall program effectiveness.

Quantitative Analysis

The researcher analyzed existing reading and math data of three groups of students: (a) Spanish learners in the dual language program; (b) English learners in the dual language program; and (c) English proficient students in monolingual programming.

The independent variable for this study was the student's program: dual language or monolingual. The dependent variables were Fountas and Pinnell instructional reading level, Performance Series scale score in reading, ISAT scale score in reading and math, and PARCC score in ELA and math.

Medians were reported for each of the three groups for each administration of each assessment. The researcher utilized Kruskal-Wallis Tests, the non-parametric alternative to a one-way between-groups analysis of variance, to determine if there were statistically significant differences in performance of each of the three groups for each administration of each reading assessment. Although non-parametric statistics tend to be less sensitive than their parametric counterparts, thus running the risk of failing to detect differences between groups that actually exist, this non-parametric technique was utilized because a significant portion of the data violated the assumptions of normal distribution and homogeneity of variables, which are required for analysis of variance. In the Kruskal-Wallis Test, scores are converted to ranks and the mean rank for each group is compared (Pallant, 2013). The researcher also utilized Kruskal-Wallis Tests to determine if there were statistically significant differences between the three groups in terms of growth from initial administration of Fountas and Pinnell and Performance Series assessments to most recent administration of Fountas and Pinnell and Performance Series assessments. Finally, the researcher utilized Kruskal-Wallis Tests to determine if there were statistically significant differences in performance of each of the three groups for each administration of each math assessment.

When statistically significant results were obtained on the Kruskal-Wallis Test,

follow-up Mann-Whitney U Tests, the non-parametric alternative to the t-test for

independent samples, were conducted to determine which of the groups were statistically

significantly different from one another. A Bonferroni adjustment was applied to the

alpha values; therefore, a .017 alpha level was utilized for the Mann-Whitney U Tests

rather than the .05 alpha level utilized for the Kruskal-Wallis Tests.

Survey Method Analysis

Constant comparative analysis. The researcher utilized constant comparative

analysis, sometimes referred to as coding, to generate a set of themes (Leech &

Onwuegbuzie, 2008). Responses to survey questions were coded for themes and used to

enrich the understanding of the parental perspectives of the dual language program. Any

responses to the survey provided in Spanish were translated to English by the district

translation service in order for the researcher, a monolingual English-speaker, to analyze

responses and to communicate results to the reader. According to Leech and

Onwuegbuzie (2008), there are three main stages of constant comparative analysis. The

first stage of constant comparative analysis was open coding, where the researcher

chunked the data into smaller segments and attached a descriptor, or code, for each

segment. Next, the researcher engaged in axial coding in which the codes were grouped

into similar categories. Finally, during selective coding, the researcher integrated and

refined the theory or set of themes (Leech & Onwuegbuzie, 2008). The responses to the

open-ended questions were examined using descriptive statistics to determine if there

were any differences in parental perspectives according to native language of the

student(s) or grade level of the student(s); no inferential statistical analyses were conducted for the survey.

Trustworthiness

 Peer review. Peer review is one method utilized to enhance the trustworthiness of qualitative action research studies. A colleague, friend, or collaborative research group member can be recruited to help determine the credibility of the researcher's interpretation and findings by reviewing the data and providing constructive feedback (Efron & Ravid, 2013). The researcher recruited another coder, a bilingual reading specialist in the school district, to evaluate the researcher's coding, analysis, and interpretation of survey responses.

 Reflexivity. According to Efron and Ravid (2013), reflexivity refers to self-awareness and considering how the researcher's perspectives may impact the decisions made and actions taken during the research process. "Reflexivity suggests that the action researchers acknowledge and disclose their subjectivity and monitor its potential impact on their data collection and data interpretation" (Efron & Ravid, 2013, p. 57). In action research, researchers are insiders who are personally involved and familiar with the setting, making them innately subjective (Efron & Ravid, 2013). The researcher acknowledges that as a school psychologist working in two of the schools participating in the research study, there is a level of subjectivity and personal interest in the outcomes of the study. The researcher engaged in self-reflection throughout the research process and relied on peer review and feedback from committee members to ensure the validity of the study and interpretations.

CHAPTER IV

RESULTS

Research Question 1

Is there a significant difference in the reading performance of Spanish learners in

the dual language program (Group 1) versus English learners in the dual language

program (Group 2) versus English proficient students in monolingual programming

(Group 3) for each cohort entering kindergarten in the 2007-2008 school year to the

2014-2015 school year?

Fountas and Pinnell

Overview. On the Fountas and Pinnell assessment, Kruskal-Wallis Tests revealed

statistically significant differences ($p < .05$) in mean ranks of scores across the three

groups for every administration of the assessment. Post-hoc Mann-Whitney U Tests

revealed statistically significant differences ($p < .017$) in mean ranks of scores between

Group 1 and Group 2, as well as between Group 2 and Group 3 for every administration

of the assessment. English learners in dual language scored statistically significantly

lower than both Spanish learners in dual language and English proficient students in

monolingual. Statistically significant differences were identified between Group 1 and

Group 3 for the 2013-2014 and 2014-2015 cohorts but not for the 2012-2013 cohort.

When examining growth from initial administration to most recent administration of the

assessment, there were no statistically significant differences between groups for the

53

2013-2014 cohort, but there were statistically significant differences between groups for the 2012-2013 and 2014-2015 cohorts. Detailed information regarding tests of significance for the Fountas and Pinnell assessment can be found below and in Table C1.

2012-2013 cohort. In fall of second grade, medians were as follows: Group 1, *Mdn* = 12, Group 2, *Mdn* = 6, and Group 3, *Mdn* = 12. In spring of second grade, medians were as follows: Group 1, *Mdn* = 14, Group 2, *Mdn* = 12, and Group 3, *Mdn* = 15. English learners in dual language scored statistically significantly lower than both Spanish learners in dual language and English proficient students in monolingual. When examining growth from fall of second grade to spring of second grade, medians were as follows: Group 1, *Mdn* = 3, Group 2, *Mdn* = 5 and Group 3, *Mdn* = 3; English learners demonstrated statistically significantly more growth than both of the other groups.

2013-2014 cohort. In fall of first grade, medians were as follows: Group 1, *Mdn* = 5.5, Group 2, *Mdn* = .00, and Group 3, *Mdn* = 8. In spring of first grade, medians were as follows: Group 1, *Mdn* = 12, Group 2, *Mdn* = 6, and Group 3, *Mdn* = 14. English learners in dual language scored statistically significantly lower than both Spanish learners in dual language and English proficient students in monolingual. For the fall of first grade administration of this assessment, Spanish learners in dual language scored statistically significantly lower than English proficient students in monolingual. When examining growth from fall of first grade to spring of first grade, medians were as follows: Group 1, *Mdn* = 5, Group 2, *Mdn* = 5 and Group 3, *Mdn* = 4; no statistically significant differences in growth were revealed.

2014-2015 cohort. In fall of kindergarten, medians were as follows: Group 1,

Mdn = .00, Group 2, *Mdn* = .00, and Group 3, *Mdn* = 1. In spring of kindergarten,

medians were as follows: Group 1, *Mdn* = 4, Group 2, *Mdn* = 1, and Group 3, *Mdn* = 7.5.

English learners in dual language scored statistically significantly lower than both

Spanish learners in dual language and English proficient students in monolingual. In

spring of kindergarten, Spanish learners in dual language scored statistically significantly

lower than English proficient students in monolingual. When examining growth from fall

of kindergarten to spring of kindergarten, medians were as follows: Group 1, *Mdn* = 4,

Group 2, *Mdn* = 2 and Group 3, *Mdn* = 5. The growth of students in the English learners

in dual language group was statistically significantly lower that than of students in the

Spanish learners in dual language and English proficient students in monolingual groups.

Performance Series

Overview. On the Performance Series assessment for the majority of cohorts,

Kruskal-Wallis Tests revealed statistically significant differences (p < .05) in mean ranks

of scales scores across the three groups for every administration of the assessment. The

majority of cohorts (75%) did not demonstrate statistically significant differences in

growth from the initial assessment to the most recent assessment. For the majority of

cohorts, post-hoc Mann-Whitney U Tests revealed statistically significant differences (p

< .017) in mean ranks of scale scores between Group 1 and Group 2 and between Group

2 and Group 3 for every administration of the assessment. English learners in dual

language scored statistically significantly lower than both Spanish learners in dual

language and English proficient students in monolingual. No statistically significant

differences were identified between Group 1 and Group 3 for any cohort. Detailed information regarding tests of significance for the Performance Series assessment can be found below and in Tables C2 to C7.

2007-2008 cohort. In fall of fifth grade, medians were as follows: Group 1, *Mdn* = 2959, Group 2, *Mdn* = 2343, and Group 3, *Mdn* = 2826. In spring of fifth grade, medians were as follows: Group 1, *Mdn* = 3058, Group 2, *Mdn* = 2350.5, and Group 3, *Mdn* = 2966. In fall of sixth grade, medians were as follows: Group 1, *Mdn* = 2967, Group 2, *Mdn* = 2360, and Group 3, *Mdn* = 3014. In spring of sixth grade, medians were as follows: Group 1, *Mdn* = 3080, Group 2, *Mdn* = 2555.5, and Group 3, *Mdn* = 3092. In fall of seventh grade, medians were as follows: Group 1, *Mdn* = 3053, Group 2, *Mdn* = 2620.5, and Group 3, *Mdn* = 3022.5. In spring of seventh grade, medians were as follows: Group 1, *Mdn* = 3142, Group 2, *Mdn* = 2754, and Group 3, *Mdn* = 3078. English learners in dual language scored statistically significantly lower than both Spanish learners in dual language and English proficient students in monolingual. There were no statistically significant differences between Spanish learners in dual language and English proficient students in monolingual. When examining growth from fall of fifth grade to spring of seventh grade, medians were as follows: Group 1, *Mdn* = 237, Group 2, *Mdn* = 398, and Group 3, *Mdn* = 197. Growth of the English learners in dual language group was statistically significantly higher than both of the other groups.

2008-2009 cohort. In fall of fourth grade, medians were as follows: Group 1, *Mdn* = 2721, Group 2, *Mdn* = 2282, and Group 3, *Mdn* = 2658. In spring of fourth grade, medians were as follows: Group 1, *Mdn* = 2796.5, Group 2, *Mdn* = 2398.5, and Group 3,

Mdn = 2744.5. In fall of fifth grade, medians were as follows: Group 1, *Mdn* = 2827,

Group 2, *Mdn* = 2378, and Group 3, *Mdn* = 2814. In spring of fifth grade, medians were

as follows: Group 1, *Mdn* = 2912, Group 2, *Mdn* = 2660, and Group 3, *Mdn* = 2905. In

fall of sixth grade, medians were as follows: Group 1, *Mdn* = 2887, Group 2, *Mdn* =

2665, and Group 3, *Mdn* = 2967. In spring of sixth grade, medians were as follows:

Group 1, *Mdn* = 2975, Group 2, *Mdn* = 2658, and Group 3, *Mdn* = 2898. Results for this

cohort were somewhat unique in comparison to the other cohorts. English learners in dual

language demonstrated statistically significantly lower scores than Spanish learners in

dual language, but when English learners in dual language were compared to English

proficient students in monolingual, scores were only statistically significantly lower for

half of the administrations of this assessment. When examining growth from fall of fourth

grade to spring of sixth grade, medians were as follows: Group 1, *Mdn* = 273, Group 2,

Mdn = 330, and Group 3, *Mdn* = 295.5; no statistically significant differences were

observed between the groups.

2009-2010 cohort. In fall of third grade, medians were as follows: Group 1, *Mdn*

= 2383.5, Group 2, *Mdn* = 1923, and Group 3, *Mdn* = 2616.5. In spring of third grade,

medians were as follows: Group 1, *Mdn* = 2618, Group 2, *Mdn* = 2065, and Group 3,

Mdn = 2720.5. In fall of fourth grade, medians were as follows: Group 1, *Mdn* = 2607,

Group 2, *Mdn* = 2139.5, and Group 3, *Mdn* = 2798. In spring of fourth grade, medians

were as follows: Group 1, *Mdn* = 2764, Group 2, *Mdn* = 2286, and Group 3, *Mdn* = 2839.

In fall of fifth grade, medians were as follows: Group 1, *Mdn* = 2796, Group 2, *Mdn* =

2281, and Group 3, *Mdn* = 2907. In spring of fifth grade, medians were as follows: Group

1, *Mdn* = 2906, Group 2, *Mdn* = 2472, and Group 3, *Mdn* = 2952. English learners in dual language scored statistically significantly lower than both Spanish learners in dual language and English proficient students in monolingual. There were no statistically significant differences between Spanish learners in dual language and English proficient students in monolingual. When examining growth, scores from spring of third grade were utilized due to missing data in fall of third grade. For growth from spring of third grade to spring of fifth grade, medians were as follows: Group 1, *Mdn* = 295, Group 2, *Mdn* = 404, and Group 3, *Mdn* = 236.5. Mann-Whitney U Tests revealed growth of English learners in dual language was statistically significantly higher than that of English proficient students in monolingual.

2010-2011 cohort. In fall of second grade, medians were as follows: Group 1, *Mdn* = 2382, Group 2, *Mdn* = 1771, and Group 3, *Mdn* = 2371. In spring of second grade, medians were as follows: Group 1, *Mdn* = 2483.5, Group 2, *Mdn* = 1896, and Group 3, *Mdn* = 2465. In fall of third grade, medians were as follows: Group 1, *Mdn* = 2545, Group 2, *Mdn* = 2069, and Group 3, *Mdn* = 2578. In spring of third grade, medians were as follows: Group 1, *Mdn* = 2715, Group 2, *Mdn* = 2226, and Group 3, *Mdn* = 2770. In fall of fourth grade, medians were as follows: Group 1, *Mdn* = 2715.5, Group 2, *Mdn* = 2284, and Group 3, *Mdn* = 2771. In spring of fourth grade, medians were as follows: Group 1, *Mdn* = 2901, Group 2, *Mdn* = 2451, and Group 3, *Mdn* = 2909. English learners in dual language scored statistically significantly lower than both Spanish learners in dual language and English proficient students in monolingual. There were no statistically significant differences between Spanish learners in dual language and English

proficient students in monolingual. When examining growth, scores from spring of second grade were utilized due to missing data in fall of second grade. For growth from spring of second grade to spring of fourth grade, medians were as follows: Group 1, *Mdn* = 372, Group 2, *Mdn* = 364, and Group 3, *Mdn* = 415.5; no statistically significant differences were observed between the groups.

2011-2012 cohort. In fall of second grade, medians were as follows: Group 1, *Mdn* = 2236, Group 2, *Mdn* = 1769, and Group 3, *Mdn* = 2285.5. In spring of second grade, medians were as follows: Group 1, *Mdn* = 2349, Group 2, *Mdn* = 1988.5, and Group 3, *Mdn* = 2484. In fall of third grade, medians were as follows: Group 1, *Mdn* = 2484, Group 2, *Mdn* = 2040, and Group 3, *Mdn* = 2634. In spring of third grade, medians were as follows: Group 1, *Mdn* = 2640, Group 2, *Mdn* = 2242, and Group 3, *Mdn* = 2674. English learners in dual language scored statistically significantly lower than both Spanish learners in dual language and English proficient students in monolingual. There were no statistically significant differences between Spanish learners in dual language and English proficient students in monolingual. When examining growth from fall of second grade to spring of third grade, medians were as follows: Group 1, *Mdn* = 508, Group 2, *Mdn* = 455, and Group 3, *Mdn* = 323; no statistically significant differences were observed between the groups.

2012-2013 cohort. In fall of second grade, medians were as follows: Group 1, *Mdn* = 2094, Group 2, *Mdn* = 1808, and Group 3, *Mdn* = 2126.5. In spring of second grade, medians were as follows: Group 1, *Mdn* = 2352, Group 2, *Mdn* = 2000, and Group 3, *Mdn* = 2523.5. English learners in dual language scored statistically significantly lower

than both Spanish learners in dual language and English proficient students in monolingual. There were no statistically significant differences between Spanish learners in dual language and English proficient students in monolingual. When examining growth from fall of second grade to spring of second grade, medians were as follows: Group 1, *Mdn* = 225, Group 2, *Mdn* = 204, and Group 3, *Mdn* = 284; no statistically significant differences were observed between the groups.

ISAT Reading

Overview. On the ISAT Reading, Kruskal-Wallis Tests revealed statistically significant differences in scales scores across the three groups for every administration of the assessment for all cohorts. Post-hoc Mann-Whitney U Tests revealed statistically significant differences ($p < .017$) in mean ranks of scale scores between Group 1 and Group 2, as well as between Group 2 and Group 3 for every administration of the assessment, with the exception of one administration for the 2008-2009 cohort. Beyond that exception, English learners in dual language scored statistically significantly lower than both Spanish learners in dual language and English proficient students in monolingual. There were no statistically significant differences between Spanish learners in dual language and English proficient students in monolingual for any cohort. Detailed information regarding tests of significance for the ISAT Reading assessment can be found below and in Tables C8 to C11.

2007-2008 cohort. In third grade, medians were as follows: Group 1, *Mdn* = 221, Group 2, *Mdn* = 162, and Group 3, *Mdn* = 236. In fourth grade, medians were as follows: Group 1, *Mdn* = 237, Group 2, *Mdn* = 181, and Group 3, *Mdn* = 246. In fifth grade,

medians were as follows: Group 1, *Mdn* = 252, Group 2, *Mdn* = 202, and Group 3, *Mdn* =

252. In sixth grade, medians were as follows: Group 1, *Mdn* = 258, Group 2, *Mdn* = 221,

and Group 3, *Mdn* = 255. English learners in dual language scored statistically

significantly lower than both of the other groups. There were no statistically significant

differences between Spanish learners in dual language and English proficient students in

monolingual.

2008-2009 cohort. In third grade, medians were as follows: Group 1, *Mdn* = 217,

Group 2, *Mdn* = 168.5, and Group 3, *Mdn* = 208. In fourth grade, medians were as

follows: Group 1, *Mdn* = 232, Group 2, *Mdn* = 194.5, and Group 3, *Mdn* = 224.5. In fifth

grade, medians were as follows: Group 1, *Mdn* = 248, Group 2, *Mdn* = 228, and Group 3,

Mdn = 235. In fifth grade, English learners in dual language scored statistically

significantly lower than the Spanish learners in dual language, but there were no

statistically significant differences between the English learners in dual language and

English proficient students in monolingual. For all other administrations, English learners

in dual language scored statistically significantly lower than both of the other groups.

There were no statistically significant differences between Spanish learners in dual

language and English proficient students in monolingual.

2009-2010 cohort. In third grade, medians were as follows: Group 1, *Mdn* = 219,

Group 2, *Mdn* = 169, and Group 3, *Mdn* = 235. In fourth grade, medians were as follows:

Group 1, *Mdn* = 229, Group 2, *Mdn* = 188, and Group 3, *Mdn* = 243. English learners in

dual language scored statistically significantly lower than both of the other groups. There

were no statistically significant differences between Spanish learners in dual language and English proficient students in monolingual.

2010-2011 cohort. In third grade, medians were as follows: Group 1, $Mdn = 226$, Group 2, $Mdn = 180.5$, and Group 3, $Mdn = 236$. English learners in dual language scored statistically significantly lower than both of the other groups. There were no statistically significant differences between Spanish learners in dual Language and English proficient students in monolingual.

PARCC ELA

Overview. On the PARCC ELA, Kruskal-Wallis Tests revealed statistically significant differences in scales scores across the three groups for every cohort. Post-hoc Mann-Whitney U Tests revealed statistically significant differences ($p < .017$) in mean ranks of scale scores between Group 1 and Group 2 for every cohort. Statistically significant differences were found between Group 2 and Group 3 for every cohort except the 2008-2009 cohort. No statistically significant differences were identified between Group 1 and Group 3 for any cohort except the 2009-2010 cohort. Generally, English learners in dual language scored statistically significantly lower than both of the other groups. There were no statistically significant differences between Spanish learners in dual language and English proficient students in monolingual. Detailed information regarding tests of significance for the PARCC ELA assessment can be found below and in Table C12.

2007-2008 cohort. In seventh grade, medians were as follows: Group 1, $Mdn = 770$, Group 2, $Mdn = 713.5$, and Group 3, $Mdn = 764$. English learners in dual language

scored statistically significantly lower than both of the other groups. There were no statistically significant differences between Spanish learners in dual language and English proficient students in monolingual.

2008-2009 cohort. In sixth grade, medians were as follows: Group 1, *Mdn* = 745, Group 2, *Mdn* = 726, and Group 3, *Mdn* = 743.5. English learners in dual language scored statistically significantly lower than Spanish learners in dual language. There were no statistically significant differences between English learners in dual language and English proficient students in monolingual or between Spanish learners in dual language and English proficient students in monolingual.

2009-2010 cohort. In fifth grade, medians were as follows: Group 1, *Mdn* = 749, Group 2, *Mdn* = 706, and Group 3, *Mdn* = 771.5. English learners in dual language scored statistically significantly lower than both of the other groups. The Mann-Whitney U Test revealed Spanish learners in dual language scored statistically significantly lower than the English proficient students in monolingual.

2010-2011 cohort. In fourth grade, medians were as follows: Group 1, *Mdn* = 770, Group 2, *Mdn* = 723, and Group 3, *Mdn* = 769.5. English learners in dual language scored statistically significantly lower than both of the other groups. There were no statistically significant differences between Spanish learners in dual language and English proficient students in monolingual.

2011-2012 cohort. In third grade, medians were as follows: Group 1, *Mdn* = 748, Group 2, *Mdn* = 705, and Group 3, *Mdn* = 756.5. English learners in dual language scored statistically significantly lower than both of the other groups. There were no

statistically significant differences between Spanish learners in dual language and English proficient students in monolingual.

Reading Summary

For the vast majority of the reading assessments examined, the performance of English learners in dual language was statistically significantly lower than that of Spanish learners in dual language and English proficient students in monolingual. For the majority of reading assessments examined, there were no statistically significant differences between the performance of Spanish learners in dual language and English proficient students in monolingual. In terms of growth, for about half of the reading assessments examined, there were no statistically significant differences between groups. Of the four instances in which statistically significant differences in growth were present, one revealed lower growth for English learners in dual language in comparison to both of the other groups, while the other three revealed higher growth for English learners in dual language in comparison to at least one of the other two groups.

When considering the English language proficiency of the English learners in dual language group (see Table 5), it is understandable that students in this group are not yet performing at the English academic performance level of their English proficient peers. Furthermore, although not examined for this research study, it is possible that the high percentage of students qualifying for free/reduced lunch in the English learners in dual language group (see Table 4) in comparison to the other two groups may be a factor contributing to the observed differences. Consistent with the literature base, the lack of statistically significant differences, for the vast majority of cohorts, between Spanish

learners in dual language and English proficient students in monolingual indicate that Spanish learners in the dual language program are still able to perform at an English academic level that is comparable to that of their peers in monolingual classes despite the addition of Spanish instruction and academics.

Research Question 2

Is there a significant difference in the math performance of Spanish learners in the dual language program versus English learners in the dual language program versus English proficient students in monolingual programming for each cohort entering kindergarten in the 2007-2008 school year to the 2014-2015 school year?

ISAT Math

Overview. On the ISAT Math, Kruskal-Wallis Tests revealed statistically significant differences in scales scores across the three groups for every administration of the assessment for all cohorts. Post-hoc Mann-Whitney U Tests revealed statistically significant differences ($p < .017$) in mean ranks of scale scores between Group 1 and Group 2, as well as between Group 2 and Group 3 for every administration of the assessment, with the exception of one administration for the 2008-2009 cohort. Beyond that exception, English learners in dual language scored statistically significantly lower than both Spanish learners in dual language and English proficient students in monolingual. No statistically significant differences were identified between Group 1 and Group 3 for any cohort. Detailed information regarding tests of significance for the ISAT Math assessment can be found below and in Tables D1 to D4.

2007-2008 cohort. In third grade, medians were as follows: Group 1, $Mdn = 234$, Group 2, $Mdn = 188.5$, and Group 3, $Mdn = 238$. In fourth grade, medians were as follows: Group 1, $Mdn = 245$, Group 2, $Mdn = 206$, and Group 3, $Mdn = 252$. In fifth grade, medians were as follows: Group 1, $Mdn = 263$, Group 2, $Mdn = 209$, and Group 3, $Mdn = 259$. In sixth grade, medians were as follows: Group 1, $Mdn = 284$, Group 2, $Mdn = 240$, and Group 3, $Mdn = 284$. English learners in dual language scored statistically significantly lower than both of the other groups. There were no statistically significant differences between Spanish learners in dual language and English proficient students in monolingual.

2008-2009 cohort. In third grade, medians were as follows: Group 1, $Mdn = 232$, Group 2, $Mdn = 188$, and Group 3, $Mdn = 226.5$. In fourth grade, medians were as follows: Group 1, $Mdn = 238$, Group 2, $Mdn = 201$, and Group 3, $Mdn = 242$. In fifth grade, medians were as follows: Group 1, $Mdn = 263$, Group 2, $Mdn = 227$, and Group 3, $Mdn = 251$. In fifth grade, English learners in dual language scored statistically significantly lower than Spanish learners in dual language, but there were no statistically significant differences between English learners in dual language and English proficient students in monolingual. For all other administrations, English learners in dual language scored statistically significantly lower than both of the other groups. There were no statistically significant differences between Spanish learners in dual language and English proficient students in monolingual.

2009-2010 cohort. In third grade, medians were as follows: Group 1, $Mdn = 221.5$, Group 2, $Mdn = 187$, and Group 3, $Mdn = 232$. In fourth grade, medians were as

follows: Group 1, *Mdn* = 243, Group 2, *Mdn* = 210, and Group 3, *Mdn* = 250.5. English

learners in dual language scored statistically significantly lower than both of the other

groups. There were no statistically significant differences between Spanish learners in

dual language and English proficient students in monolingual.

2010-2011 cohort. In third grade, medians were as follows: Group 1, *Mdn* = 233,

Group 2, *Mdn* = 200, and Group 3, *Mdn* = 242. English learners in dual language scored

statistically significantly lower than both of the other groups. There were no statistically

significant differences between Spanish learners in dual language and English proficient

students in monolingual.

PARCC Math

Overview. On the PARCC Math, Kruskal-Wallis Tests revealed statistically

significant differences in scales scores across the three groups for every cohort. Post-hoc

Mann-Whitney U Tests revealed statistically significant differences ($p < .017$) in mean

ranks of scale scores between Group 1 and Group 2 for every cohort. Statistically

significant differences were also found between Group 2 and Group 3 for every cohort.

No statistically significant differences were identified between Group 1 and Group 3 for

any cohort. Detailed information regarding tests of significance for the PARCC Math

assessment can be found below and in Table D5.

2007-2008 cohort. In seventh grade, medians were as follows: Group 1, *Mdn* =

758, Group 2, *Mdn* = 717, and Group 3, *Mdn* = 756. English learners in dual language

scored statistically significantly lower than both of the other groups. There were no

statistically significant differences between Spanish learners in dual language and English proficient students in monolingual.

2008-2009 cohort. In sixth grade, medians were as follows: Group 1, *Mdn* = 748, Group 2, *Mdn* = 720, and Group 3, *Mdn* = 740.5. English learners in dual language scored statistically significantly lower than both of the other groups. There were no statistically significant differences between Spanish learners in dual language and English proficient students in monolingual.

2009-2010 cohort. In fifth grade, medians were as follows: Group 1, *Mdn* = 748, Group 2, *Mdn* = 717, and Group 3, *Mdn* = 756. English learners in dual language scored statistically significantly lower than both of the other groups. There were no statistically significant differences between Spanish learners in dual language and English proficient students in monolingual.

2010-2011 cohort. In fourth grade, medians were as follows: Group 1, *Mdn* = 761, Group 2, *Mdn* = 715, and Group 3, *Mdn* = 770.5. English learners in dual language scored statistically significantly lower than both of the other groups. There were no statistically significant differences between Spanish learners in dual language and English proficient students in monolingual.

2011-2012 cohort. In third grade, medians were as follows: Group 1, *Mdn* = 753, Group 2, *Mdn* = 725.5, and Group 3, *Mdn* = 761.5. English learners in dual language scored statistically significantly lower than both of the other groups. There were no statistically significant differences between Spanish learners in dual language and English proficient students in monolingual.

Math Summary

Similar to the reading assessments examined, on the vast majority of the math assessments examined, the performance of English learners in dual language was statistically significantly lower than that of Spanish learners in dual language and English proficient students in monolingual. There were no statistically significant differences between Spanish learners in dual language and English proficient students in monolingual.

As indicating in the reading summary, when considering the English language proficiency of English learners in dual language (see Table 5), it is understandable that students in this group are not yet performing at the English academic performance level of their English proficient peers. Furthermore, although not examined for this research study, it is possible that the high percentage of students qualifying for free/reduced lunch in the English learners in dual language group (see Table 4) in comparison to the other two groups may be a factor contributing to the observed differences. Consistent with the literature base, the lack of statistically significant differences between the Spanish learners in dual language and English proficient students in monolingual indicate that English proficient students in the dual language program are still able to perform at an English academic level that is comparable to that of their peers in monolingual classes despite the addition of Spanish instruction and academics. This is particularly noteworthy for math, as this research study examined performance on English math assessments and math instruction was provide in Spanish through fifth grade for these cohorts.

Research Question 3

How satisfied are parents of students participating in the dual language program with the overall program, as well as with their child's academic performance and second language acquisition?

Parent Survey

A survey was distributed to parents of students in the dual language program; the survey had an approximately 35% response rate. About 23% of responses were provided in Spanish and translated to English for analysis. Approximately 27% of respondents identified Spanish as their child's native language. Survey themes regarding academic performance and second language acquisition can be found in Table 9. Survey themes regarding suggestions for improvement and overall recommendations can be found in Table 10.

Reading Performance

Satisfied. When asked to explain their level of satisfaction with their child's reading progress in the dual language program, approximately 70% of responses were coded as "satisfied." Parents used words such as, "good," "satisfied," "excellent," "pleased," "happy," and "impressed" to explain their level of satisfaction with their child's reading progress in the dual language program. They noted the advantages of reading in two languages and seeing an increased interest in reading, and they stated that participating in the program is a good challenge for their children. Some parents stated that there is a delay in their child's reading due to reading in two languages, but they emphasized that the delay was expected and worth the benefits of being biliterate. One

parent stated, "To us, any such delay is more than outweighed by the huge advantage of his becoming fluent reading and speaking Spanish." Other parents noted some initial challenges with their child's reading, but due to extra supports and additional time in the program, they were currently satisfied with their child's reading performance.

Mixed opinions. Approximately 23% of responses were coded as "mixed opinions." Some parents stated that they were unsure of their child's current performance in reading, while others expanded to state that it was difficult to determine where their child should be performing and how their performance compared to other students in the dual language program. One parent stated, "It is hard to tell when we have any score that is not ranking at the same level as the school, is that my student or is that similar to other DL [dual language] students." Parents reported that their children were behind in reading and could improve more, or they were only doing well because of home support. Some parents indicated a desire for additional resources in Spanish, more emphasis on Spanish, and a desire for their children to show more interest in reading in Spanish. On the other hand, some parents reported concerns with English academic skills and attributed those concerns to learning in Spanish. Finally, some parents reported that their children were performing well in reading but they would like their children to be challenged more.

Dissatisfied. Approximately seven percent of parent responses were coded as "dissatisfied." These parents indicated a desire for increased communication and more assessment of students. Some parents stated that there is not enough Spanish in the program, particularly as the students move on to later grades. Parents cited social concerns, a negative classroom environment, and concerns with the dual language

teacher. Some parents felt that participation in the dual language program has held back English progress, and they were unhappy that students were not able to participate in gifted programming. It is important to note that for literacy, students in dual language are able to qualify for gifted programming, but parents must decide whether to keep their children in bilingual literacy instruction in the dual language program or move them to monolingual English instruction in gifted literacy programming.

Math Performance

Satisfied. Approximately 63% of parents provided responses regarding their level of satisfaction with their child's progress in math that were coded as "satisfied." Parents used words such as "good," "making progress," "excellent," "satisfactory," and "exceeds standards" to explain their children's progress in math in the dual language program. Parents reported that their children demonstrate math performance that appears to be on par with monolingual classes, and their children enjoy math. Some parents stated that their children are high performers in math and now participate in the honors math program. Parents stated that it has been helpful to have homework sent home in both language so that they are able to support their children.

Mixed opinions. Approximately 26% of responses regarding math performance were coded as "mixed opinions." These parents indicated that their child's performance was "okay" or they were "unsure" because there is not enough communication regarding progress and no local norms for students in the dual language program. There were mixed opinions about the decision made for the start of the 2015-2016 school year to switch math instruction to English starting in third grade. Some parents indicated that their

children were doing well in math now that it is taught in English, while other parents stated that they wished math instruction would continue in Spanish throughout the program. One parent stated, "I value their Spanish language learning opportunities and feel torn that they have lost their opportunity to work in Spanish (a negative) but gained an ability to learn the concepts more deeply (a positive)." Several parents indicated a desire for more challenging work, while other parents indicated that they had to get outside tutors in order for their children to maintain progress in both languages. Several parents referenced math homework; some stated that their children are able to do their homework independently or that they are able to help their children with the resources provided, while others indicated that it is difficult to help their children with their homework when they do not speak the language. Parents identified the importance of bridging between the two languages.

Dissatisfied. Approximately 10% of parents reported that they were dissatisfied with their child's math progress in the dual language program. These parents reported that their children were behind academically and not making progress. Some parents reported a desire for more challenging work and identified problems with the math curriculum; concerns with the math curriculum were related to the Common Core State Standards and the way in which math is taught, which is not unique to the dual language program. For example, one parent responded, "Math curriculum in general these days is ridiculous. Regardless of the language." Other parents indicated that there was not enough support offered for their children to make progress, both in school and for parents

to support their children at home, as their children had difficulty understanding math concepts in Spanish.

Second Language Acquisition

Satisfied. About 71% of parents provided responses that were coded as "satisfied" in regard to their child's second language acquisition. These parents used words such as "good," "satisfied," "happy," "impressed," "excellent," and "a gift" to describe their child's second language acquisition in the dual language program. One parent stated, "Having studied foreign languages for years and been a high school Spanish teacher, I can see that the progress my first grade son is making already surpasses any language acquisition he would have obtained through traditional classrooms starting in middle school." Parents reported that their children are picking up the language quickly, appear comfortable speaking and sharing the language with others, and show an interest in the second language. These parents indicated that they are satisfied with their children's pronunciation, accent, and vocabulary. Parents provided responses that alluded to the benefits of home practice and having a native speaker at home. Some parents of older children in the program reported that their children are fully bilingual as a result of the program. One parent responded, "My children have been able to maintain both of their native languages, and I will forever be grateful to the district and the teachers for supporting that." Parents reported benefits to being exposed to multiculturalism and indicated that their children's progress can be partially attributed to having good teachers. One parent stated, "I think my child's exposure to different

cultures, and interactions with students of diverse ethnicity and socioeconomic background is of invaluable importance to a well rounded education."

Mixed opinions. Responses from approximately 22% of parents were coded as "mixed opinions." Some parents reported wanting more progress and/or faster progress. They stated that their children have Spanish skills but are not yet confident in their skills and are too embarrassed or shy to speak Spanish at home. Parents indicated a desire for more conversational skills, as they found their children appeared to understand more than they could speak. Some parents reported a desire for better assessment of language skills throughout the program, as it is difficult for parents to assess their child's progress if they are not bilingual themselves. Some parents recommended summer classes to avoid regression in Spanish acquisition; several parents alluded to taking family vacations to Spanish-speaking countries, but this is not necessarily an experience that all parents of students in the dual language program are able to provide. Finally, parents reported a desire for more home support.

Dissatisfied. Approximately seven percent of parent responses to the question regarding their child's second language acquisition were coded as "dissatisfied." Parents used the term "unsatisfactory" and cited reasons such as decreased exposure to Spanish as students progress in the program and not enough Spanish opportunities. Some parents reported that their children's capabilities were not what the district said they would be as a result of participating in the dual language program. One parent stated, "I think the program vastly oversold parents on their children's capabilities once they completed the program. It's not even close to what they said they would be." Additionally, these parents

requested additional communication about Spanish to English ratios as students progress in the program.

Suggestions for Improvement

When asked to provide any suggestions for improving the dual language program, parents provided suggestions regarding increasing communication/transparency and more cultural and social opportunities. Parents indicated that they want to know what is going on in the classroom and how their children are performing academically in both English and Spanish. Parents wanted additional resources to help support their children at home and they wanted to be informed of future plans for the dual language program. Responses to the survey indicated that parents wanted additional cultural and social opportunities for their children. A few parents indicated that they would like the program to expand. They would like their children to be able to participate in the dual language program while still attending their home school and being able to participate in the district's gifted programming.

Overall Recommendations

Benefits. Approximately 76% of parents indicated that they would recommend the dual language program to other parents. Parents cited the value of being able to speak two languages as a reason for their recommendation. They reported academic and cognitive benefits and stated that being bilingual provides their children with a better future and career options. Parents noted that their children are exposed to multiculturalism and gain an appreciation of diversity. Parents reported liking that the program challenges their children and used words such as "opportunity" and "gift" to

describe the value of the program. One parent stated, "Absolutely. This is such an incredibly valuable opportunity for our children. They are growing up in a global economy and connected world. I think this program exposes them to different cultures through the acquisition of a new language. It also provides them with a valuable tool at a time when it is easiest for them to learn how to use it!" Some parents indicated that they liked having the community of a cohort of students. Parents reported that their children have had good teachers and they noted a desire to expand the dual language program. A Spanish-speaking parent stated, "Yes I would recommend it because the children are Hispanic and they start learning in their language; for parents who do not speak English, it allows us to help our children." Benefits identified by the parent survey were generally consistent with the current literature base regarding reasons why parents selected dual language programs for their children (Gerena, 2010; Giacchino-Baker & Piller, 2006; Lindholm-Leary, 2001; Lopez, 2013; Shannon and Milian, 2002).

Concerns. About 19% of parents expressed reservations prior to recommending the dual language program to others. Parents indicated that the dual language program is not for everyone. They stated that it is necessary to be an active parent and helpful to have at least one parent at home who speaks both languages. Parents reported a desire for more support for parents to help their children. Some parents stated that their children were behind academically and they had concerns with the quality of the academic content. Several parents reported social concerns, as well as concerns with the program not being in their child's home school throughout their educational experience.

A small number of parents, only approximately four percent, reported that they would not recommend the dual language program to other parents. These parents cited reasons such as the decrease in Spanish instruction in middle school, not enough parent communication, problems with socialization and not being in their home school, and concerns with the curriculum for higher achieving students.

Trends. Inferential statistics were not conducted for the parent survey, but percentages of responses coded in each category were examined by native language and grade level. When examining parent recommendations based on the parent identified native language of the student, parents of students whose native language was Spanish or other/both had higher percentages of recommendations without reservations than parents of students whose native language was English. Approximately 72% of parents of students whose native language was English recommended the dual language program without reservations, 24% recommended the program with some concerns/reservations, and 5% did not recommend the program. Approximately 89% of parents of students whose native language was Spanish recommended the dual language program without reservations, 4% recommended the program with some concerns/reservations, and 7% did not recommend the program. Approximately 88% of parents of students whose native language was other/both recommended the dual language program without reservations, 13% recommended the program with some concerns/reservations, and 0% did not recommend the program. These results were generally consistent with research conducted by Shannon and Milian (2002), who concluded that both English- and Spanish-speaking parents provided strong support for dual language programs.

When examining parent recommendations based on student grade level of their oldest child in the program, results were mixed for students in kindergarten through fifth grade. In kindergarten through second grade, 71% of responses indicated a recommendation without reservations, 21% indicated a recommendation with some concerns/reservations, and 8% indicated they would not recommend the program. The majority of the negative responses (66.7%) came from parents of children in first grade. It is possible that parents were dissatisfied at this grade because they are past the initial year of kindergarten and getting used to the program, but they have not yet seen the progress that they had expected. In third through fifth grade, 82% of responses indicated a recommendation without reservations, 15% indicated a recommendation with some concerns/reservations, and 3% indicated they would not recommend the program. In sixth through eighth grade, 85% of responses indicated a recommendation without reservation and 15% indicated a recommendation with some concerns/reservations. No responses indicated they would not recommend the program. This trend was somewhat similar to research conducted by Lindholm-Leary (2001) that indicated highest levels of satisfaction in parents of kindergarteners, followed by parents of children in grades six through eight.

Table 9

Parent Survey: Academic Performance and Second Language Acquisition

---

Please explain your level of satisfaction with your child(ren)'s reading progress in the dual language program.

Satisfied (69.8%)
- Good, satisfied, excellent, pleased, happy, impressed
- Advantages of reading in two languages
- Good challenge for children
- Increased interest in reading
- Good teachers
- Some delay in reading, but expected and worth the benefits of being biliterate
- Initial challenges, but currently satisfied

Mixed Opinions (22.8%)
- Unsure, difficult to compare to other students that age, no local norms for dual language students
- Behind in reading, could improve more
- Only doing well because of home support
- Desire for additional resources in Spanish, should be more emphasis on Spanish, desire for students to have more interest in reading in Spanish
- Concerns with English academic skills as a result of learning in Spanish
- Student is doing well but should be challenged more

Dissatisfied (7.4%)
- Unsatisfactory progress
- Desire for more communication with parents
- Desire for more assessment of students
- Not enough Spanish
- Not able to participate in gifted programming
- Dual language has held back English progress
- Social concerns, negative classroom environment, dissatisfied with teacher

---

Please explain your level of satisfaction with your child(ren)'s math progress in the dual language program.

Satisfied (63.2%)
- Good, making progress, excellent, satisfactory, exceeds standards
- Enjoy math
- Currently in honors math
- Helpful to have homework in both languages

Mixed Opinions (26.4%)
- Okay, unsure, no local norms for dual language students

- Mixed opinions about switching math to English
- Desire for more communication
- Desire for more challenging work
- Homework
- Tutoring
- Need for bridging between the two languages

Dissatisfied (10.4%)
- Behind academically, not making progress
- Desire for more challenging work
- No support offered
- Curriculum problems

Please explain your level of satisfaction with your child(ren)'s second language acquisition as a result of participation in the dual language program.

Satisfied (70.6%)
- Good, satisfied, happy, impressed, excellent, amazing, a gift
- Picking up the language quickly
- Comfortable speaking and sharing the language with others, shows interest
- Good pronunciation, accent, and vocabulary
- Benefit to home practice, having a native speaker at home
- Fully bilingual
- Multicultural
- Good teachers

Mixed Opinions (22.3%)
- Want more progress, want faster progress
- Child is embarrassed to speak Spanish at home, not confident
- More conversational skills, children understand more than they can speak
- Better assessment of language skills throughout the program, difficult for parents to assess progress if they are not bilingual
- Summer classes to avoid regression
- More support for parents

Dissatisfied (7.1%)
- Unsatisfactory
- Decreased exposure to Spanish as students progress, not enough Spanish opportunities
- Capabilities are not what the district said they would be
- Not enough communication about Spanish to English ratios

Table 10

Parent Survey: Suggestions for Improvement and Overall Recommendations

What, if any, suggestions do you have for improving the dual language program?
• Communication/transparency and resources
• Cultural and social opportunities
• Expand program

Would you recommend the dual language program to other parents? Why or why not?

Benefits
- Value bilingualism
- Academic and cognitive benefits
- Better future/career
- Multiculturalism, appreciate diversity
- Benefit of participating in a cohort
- Opportunity, gift

Concerns
- Not for everyone
- Active parent, helpful to have bilingual parent(s)
- More communication and support for parents
- Concerns with curriculum and academic progress
- Not enough Spanish instruction later on
- Social concerns, students not in home school

CHAPTER V

DISCUSSION

Practical Implications

Results of the research study have many practical implications for the dual

language program. A logical next step is to develop local norms for students in the dual

language program. Local norms would assist school staff members in identifying students

for special education services. Since English learners in the dual language program

generally scored statistically significantly lower on academic assessments than their

English proficient peers, local norms would enable comparisons of individual students to

more similar peers. On the survey, many parents indicated that they were unclear about

their child's academic performance level. Local norms would also enable parents to

better evaluate their child's academic progress in comparison to peers in the dual

language program rather than peers in monolingual classrooms.

With a survey response rate of 35%, it is essential to note that suggestions and

opinions communicated in the survey may not be reflective of the majority of parents of

students in the dual language program. The district has recently made many positive

strides towards addressing some of the concerns identified by parents in the survey. For

example, the district is now utilizing a more formal assessment of Spanish language

proficiency to better evaluate and communicate progress in second language acquisition

to parents of Spanish learners in a manner similar to the use of the ACCESS for ELLs assessment for English learners.

The parent survey offered many suggestions for improvements to the dual language program. While suggestions should be considered by district administrators, they are not necessarily representative of all parents of students in the dual language program. Furthermore, some suggestions are already occurring in some schools but not consistently across dual language classrooms in the district. Several of these suggestions related to increased communication from the dual language administrators to parents. Administrators for the dual language program may consider increasing resources available for parents to assist their children with academic work, particularly when they do not speak the language in which the work is provided. One option to help enable parents assist with homework is to provide all homework in both Spanish and English. Some parents also indicated a desire for more opportunities to build a community of dual language families. An online message board may allow parents to ask each other questions about the homework. Individual school administrators may find it helpful to host regular events for dual language families to socialize and network. A parent mentor system may be beneficial for parents who are new to the dual language program to have another more experienced parent serve as a resource and help guide them through the process. In addition, some parents expressed concerns with a decrease in the amount of Spanish instruction provided in the middle school dual language program, as well as concerns with a lack of communication regarding program logistics for middle school and high school. On the district level, dual language administrators must ensure that

communication to parents regarding changes to the program are communicated clearly and parents have an outlet for providing feedback.

Concerns were identified by some parents regarding the limitations of social skill development of students who are in class with the same group of peers throughout elementary school and students who are transported to a school that is not their home school in order to participate in the dual language program. Some of these concerns could be addressed by providing more opportunities for students in the dual language program to interact and socialize with peers in monolingual classrooms. Students in the dual language program could participate in specials (e.g. art, music, and physical education) with monolingual classes, or grade levels could do cross-grade level grouping for academic subjects taught in English for the dual language class at that grade level. These opportunities are already occurring in some settings and may not be logistically possible in other settings, but they are good possibilities for administrators to keep in mind.

Unfortunately, the concern regarding removing students from their home school is more complex to remedy and requires significantly more long-term planning. If there is enough interest from the community, it may be possible to expand the program to allow for additional options for the magnet schools, possibly having dual language classes at one elementary school and one middle school on the north side of the city and another elementary school and middle school on the south side of the city. This would enable students to still attend their home school for high school and would decrease the distance some students need to travel to attend a school with a dual language program. The benefits that parents may perceive to accompany such an expansion may not necessarily

outweigh potential challenges; there are a multitude of factors to consider and there would be many different ramifications. District administrators should continue to evaluate the program to be responsive to student needs and community interest.

Academically, several parents stated on the survey that they sought outside tutoring for their children. In the district, the history of providing interventions to students in the dual language program has been inconsistent. The results of this research study emphasize the importance of providing students with academic interventions in both English and Spanish. Based on recommendations from a select number of parents on the survey, it may also be beneficial for district administrators to offer summer school programs in Spanish. These programs could have a variety of goals/areas of focus such as preventing regression of Spanish language acquisition and Spanish academic skills, providing remediation or enrichment opportunities for Spanish academic skills for targeted students, and providing additional opportunities to learn about the culture of Spanish-speaking countries.

Many parents indicated on the survey that they were satisfied with the dual language teachers. In order to continue to provide quality classroom instruction and interventions/supports, district administrators must continue to make it a priority to recruit and retain qualified staff members for the dual language program, including classroom teachers, teaching assistants, and reading/math specialists.

There have been many changes to the dual language program since its inception. As with any program or initiative, there are always opportunities for continued growth and improvement. It is critical for key stakeholders to have an awareness of the research

supporting bilingual education, as well as realistic expectations for program outcomes. Results of the research study indicated that English learners in the dual language program generally performed lower on English academic assessments than their English proficient peers in either dual language or monolingual programming, but that does not imply that the dual language program is not effective. Stakeholders must understand that second language learning can take children at least to five to seven years to achieve cognitive/academic language proficiency (Hamayan et al., 2013), and academic performance on English learners can be significantly impacted by language proficiency and other factors such as low socioeconomic status. Additionally, parents of Spanish learners in the dual language program must understand that there will be challenges related to participation in a dual language program, but results of the research study indicated Spanish learners in the dual language program generally performed at an academic level comparable to that of their peers in monolingual programming. Educators must advocate for dual language programs by promoting the research-supported benefits of the program and providing parents with resources and support to overcome any challenges.

Limitations and Future Directions

There are several limitations to the research study. To begin with, there are many factors that impact both academic performance and parental perspectives; it is not possible to determine specifically what factor or factors are causing the trends identified. For the quantitative component of the research study, academic data was limited to analysis of academic performance in English, and the majority of available data was for

students later in elementary school and in middle school rather than in the primary grade levels. Future research may examine students' academic performance in Spanish, as development of Spanish academic skills is a key goal of the dual language program. While the assessments examined for this research study are indicators of academic performance, they do not provide a complete picture of a student's academic skills. Future research may further examine academic performance of students early in the program, as well as performance on classroom assessments. This research study was limited by the assessments utilized by the district and the availability of data. The district does not currently utilize universal screening data, which is more sensitive to growth over time. Due to a variety of factors present in school settings, the researcher had to work with missing and inconsistent data.

The quantitative component of this research study had a number of limitations. For some cohorts, samples sizes for each group were relatively small, and became even smaller with missing data, which can impact statistical analyses. As with all statistical hypotheses testing, there is the possibility of making type I (false positive) and type II (false negative) errors. While the researcher took all necessary precautions to maintain the accuracy of data, with an extremely large data set obtained from multiple district databases, there was still a possibility of errors. As students continue to progress in the dual language program and improvements are made to address areas of need, district administrators should continue to evaluate academic outcomes.

The researcher noted that students in the English learners in dual language group in the quantitative component of the research study generally had significantly higher

percentages of students receiving free/reduced lunch than students from the other two

groups. Although not explicitly examined for the present study, it is possible that low

socio-economic status is another factor beyond language proficiency that is contributing

to academic outcomes. Future research may examine the impact of socio-economic status

on academic outcomes. Additionally, it may be beneficial to examine academic

performance of English learners in the dual language program in comparison to English

learners in monolingual programming.

The survey of parents in the dual language program represented approximately

35% of parents and there was more representation from English-speaking parents than

from Spanish-speaking parents. Participation was voluntary, so parents may have been

more likely to respond if they had strong opinions, either positive or negative. The survey

was only provided to parents with students currently in the dual language program.

Parents who may have chosen to discontinue their child's/children's participation in the

dual language program, possibly due to significant dissatisfaction with the program or a

desire for their children to attend their home middle school, were not represented in the

survey. Survey results may have been more positive because the parents who were asked

to participate in the survey have had a high enough level of satisfaction with the program

to keep their child/children in the dual language program. Future research may explore

the perspectives of parents who dropped out of the dual language program through

surveys and/or interviews.

Furthermore, the survey captured parental perspectives at the time of completion,

which may have been influenced by factors such as the parent's mood at that time and

most recent experiences and interactions with the dual language teacher and/or administrators. Since there have been many changes to the program over time, some concerns identified by parents with older children in the program may have later been remedied. A future study may compare reading data of students in dual language when literacy instruction was sequential, prior to the 2014-2015 school year, to reading data after the switch to simultaneous literacy instruction. Responses to the survey are based on individual experiences, and as some parents noted, their perspectives on their child's/children's academic progress, second language acquisition, and overall school experience may not necessarily be attributed to participation in the dual language program. For example, students who were reported to be struggling with reading may have also struggled with reading if they were in a monolingual classroom. Concerns identified regarding curriculum and communication may be issues relevant to the whole district rather than being unique to the dual language program. District administrators should continue to evaluate the core curriculum, both for the dual language program and the district as a whole, to ensure that student needs are being met.

Finally, a significant area of concern identified by parents was the potential negative social-emotional impact of participating in the dual language program with the same group of students throughout elementary school, and for some students, not being able to attend their home school. Future research should evaluate the social-emotional functioning of students in the dual language program. In this study, the researcher examined parental perspectives of the dual language program; future directions may

analyze teacher and student perspectives in order to gain a more comprehensive view of

the dual language program.

APPENDIX A

ENGLISH COVER LETTERS AND SURVEY

Online Survey Consent

Parental Perspectives of the Dual Language Program

You are being asked to take part in a research study being conducted by Nicole Folsom for a doctoral research project under the supervision of Dr. Diane Morrison in the Department of Education at Loyola University of Chicago. This doctoral research project has been approved by School District. Nicole Folsom is a school psychologist for School District and a current doctoral student at Loyola University of Chicago. Please read this form carefully and ask any questions you may have before deciding whether to participate in the study.

You are being asked to participate because you are a parent of a child or children currently participating in the dual language program. The purpose of this survey is to examine parental perspectives of the dual language program. As a stakeholder, your input is valuable and may be helpful in examining the outcomes of the dual language program and identifying any areas in need of improvement.

If you agree to be in the study, you will be asked to complete a survey. Completion of this survey may take approximately 5-10 minutes. Although you may not benefit from this experience directly, your participation may benefit the dual language program. There are no foreseeable risks involved in participating in this research beyond those experienced in everyday life.

Participation in the survey is anonymous. Confidentiality will be maintained to the degree permitted by the technology used. Survey Monkey meets Institutional Review Board requirements for secure transmission, database security, server security, IP addresses and backups.

Participation in this study is voluntary. If you do not want to be in this study, you do not have to participate. Even if you decide to participate, you are free not to answer any question or to withdraw from participation at any time prior to submitting the survey without penalty. Because this survey will be anonymously submitted to the researcher, the researcher will be unable to extract anonymous data from the database should you wish it withdrawn after the survey is submitted.

If you have any questions about this research study or would like a copy of this form for your records, please feel free to contact Nicole Folsom at nfolsom@luc.edu or the faculty sponsor Dr. Diane Morrison at dmorri@luc.edu.

If you have questions about your rights as a research participant, you may contact the Loyola University Office of Research Services at (773) 508-2689.

By completing the survey below, you are indicating that you have read the information provided above, have had an opportunity to ask questions, and agree to participate in the research study.

Survey Consent

Parental Perspectives of the Dual Language Program

You are being asked to take part in a research study being conducted by Nicole Folsom for a doctoral research project under the supervision of Dr. Diane Morrison in the Department of Education at Loyola University of Chicago. This doctoral research project has been approved by School District. Nicole Folsom is a school psychologist for School District and a current doctoral student at Loyola University of Chicago. Please read this form carefully and ask any questions you may have before deciding whether to participate in the study.

You are being asked to participate because you are a parent of a child or children currently participating in the dual language program. The purpose of this survey is to examine parental perspectives of the dual language program. As a stakeholder, your input is valuable and may be helpful in examining the outcomes of the dual language program and identifying any areas in need of improvement.

If you agree to be in the study, you will be asked to complete a survey. Completion of this survey may take approximately 5-10 minutes. Although you may not benefit from this experience directly, your participation may benefit the dual language program. There are no foreseeable risks involved in participating in this research beyond those experienced in everyday life.

Participation in the survey is anonymous. Survey responses will be transferred to a password protected document.

Participation in this study is voluntary. If you do not want to be in this study, you do not have to participate. Even if you decide to participate, you are free not to answer any question or to withdraw from participation at any time prior to submitting the survey without penalty. Because this survey will be anonymously submitted to the researcher, the researcher will be unable to extract anonymous data from the database should you wish it withdrawn after the survey is submitted.

If you have any questions about this research study, please feel free to contact Nicole Folsom at nfolsom@luc.edu or the faculty sponsor Dr. Diane Morrison at dmorri@luc.edu.

If you have questions about your rights as a research participant, you may contact the Loyola University Office of Research Services at (773) 508-2689.

By completing the survey below and returning it to your child's teacher in the attached envelope, you are indicating that you have read the information provided above, have had an opportunity to ask questions, and agree to participate in the research study.

1. What is the native language of your child(ren) in the dual language program?

    a. English

    b. Spanish

    c. Other: _____

2. What language does your child/do your children prefer to speak with parents?

    a. English

    b. Spanish

    c. Other: _____

3. What language does your child/do your children prefer to speak with siblings/peers?

    a. English

    b. Spanish

    c. Other: _____

4. Please check the current grade level(s) of your child(ren) in the dual language program.

    a. Kindergarten

    b. First Grade

    c. Second Grade

    d. Third Grade

    e. Fourth Grade

    f. Fifth Grade

    g. Sixth Grade

    h. Seventh Grade

    i. Eighth Grade

5. Please explain your level of satisfaction with your child(ren)'s reading progress in the dual language program.

6. Please explain your level of satisfaction with your child(ren)'s math progress in the dual language program.

7. Please explain your level of satisfaction with your child(ren)'s acquisition of a second language as a result of participation in the dual language program.

8. What, if any, suggestions do you have for improving the dual language program?

9. Would you recommend the dual language program to other parents? Why or why not?

APPENDIX B

SPANISH COVER LETTERS AND SURVEY

Consentimiento para la encuesta en línea

Las perspectivas de los padres sobre el programa de lenguaje dual

Se le pide participar en un estudio de investigación llevado a cabo por Nicole Folsom para un proyecto de investigación doctoral bajo la supervisión de la Dr. Diane Morrison en el departamento de educación de la universidad Loyola de Chicago. Este proyecto de investigación doctoral ha sido aprobado por el distrito escolar. Nicole Folsom es una psicóloga del distrito escolar y actual estudiante de doctorado en la universidad Loyola de Chicago. Por favor lea este formulario cuidadosamente y haga cualquier pregunta que pueda tener antes de decidir si va a participar en el estudio.

Se le pide participar porque usted es el padre/madre de un niño o niños que actualmente participan en el programa de lenguaje dual. El propósito de esta encuesta es examinar las perspectivas de los padres sobre el programa de lenguaje dual. Como participantes del programa, su aporte es valioso y puede ser útil para examinar los resultados del programa de lenguaje dual e identificar las áreas que necesitan mejora.

Si está de acuerdo en participar en el estudio, se le pedirá que complete una encuesta. Completar esta encuesta puede tomar aproximadamente 5 a 10 minutos. Aunque no pueda beneficiarse directamente de esta experiencia, su participación puede beneficiar al programa de lenguaje dual. El participar en esta investigación no presenta riesgos previsibles más allá de lo experimentado en la vida cotidiana.

Su participación en la encuesta es anónima. Se mantendrá la confidencialidad a la medida permitida por la tecnología utilizada. La encuesta Monkey cumple con los requisitos de la junta de revisión institucional para la transmisión segura, la seguridad de la base de datos, la seguridad del servidor, las direcciones IP y las copias de respaldo.

Su participación en este estudio es voluntaria. Si no desea ser parte de este estudio, no tiene que participar. Si aún decide participar, usted no tiene que responder a ninguna pregunta o dejar de participar en cualquier momento sin ocasionar alguna penalización antes de presentar la encuesta. Debido a que esta encuesta se presentará anónimamente al investigador, el investigador no podrá sacar los datos anónimos de la base de datos en caso de que usted desee dejar de participar después que la encuesta haya sido enviada.

Si usted tiene alguna pregunta acerca de este estudio de investigación o le gustaría obtener una copia de este formulario para sus archivos, por favor no dude de ponerse en contacto con Nicole Folsom en nfolsom@luc.edu o con la Dr. Diane Morrison, la patrocinadora de la facultad, en dmorrison@luc.edu. Si tiene preguntas sobre sus derechos como participante en la investigación, puede ponerse en contacto con la oficina de la universidad de Loyola de servicios de investigación al (773) 508-2689.

Al completar la encuesta a continuación, usted está indicando que ha leído la información proporcionada anteriormente, ha tenido la oportunidad de hacer preguntas, y está de acuerdo en participar en el estudio de investigación

Consentimiento para la encuesta

Las perspectivas de los padres sobre el programa de lenguaje dual

Se le pide participar en un estudio de investigación llevado a cabo por Nicole Folsom para un proyecto de investigación doctoral bajo la supervisión de la Dr. Diane Morrison en el departamento de educación de la universidad Loyola de Chicago. Este proyecto de investigación doctoral ha sido aprobado por el distrito escolar. Nicole Folsom es una psicóloga del distrito escolar y actual estudiante de doctorado en la universidad Loyola de Chicago. Por favor lea este formulario cuidadosamente y haga cualquier pregunta que pueda tener antes de decidir si va a participar en el estudio.

Se le pide participar porque usted es un padre de un niño o niños que actualmente participa en el programa de lenguaje dual. El propósito de esta encuesta es examinar las perspectivas de los padres sobre el programa de lenguaje dual. Como participantes del programa, su aporte es valioso y puede ser útil para examinar los resultados del programa de lenguaje dual e identificar las áreas que necesitan mejora.

Si está de acuerdo a participar en el estudio, se le pedirá que complete una encuesta. Realización de esta encuesta puede tomar aproximadamente 5 a 10 minutos. Aunque no pueda beneficiarse directamente de esta experiencia, su participación puede beneficiar al programa de lenguaje dual. El participar en esta investigación no presenta riesgos previsibles más allá de lo experimentado en la vida cotidiana.

Su participación en esta encuesta es anónima. Las respuestas de la encuesta serán transferidas a un documento protegido con una contraseña.

Su participación en este estudio es voluntaria. Si no desea ser parte de este estudio, no tiene que participar. Si aún decide participar, usted no tiene que responder a cualquier pregunta o dejar de participar en cualquier momento sin ocasionar alguna penalización antes de presentar la encuesta. Debido a que esta encuesta se presentará anónimamente al investigador, el investigador no podrá sacar los datos anónimos de la base de datos en caso de que usted desee dejar de participar después de que la encuesta haya sido enviada.

Si usted tiene alguna pregunta acerca de este estudio de investigación, por favor no dude en ponerse en contacto con Nicole Folsom en nfolsom@luc.edu o con la Dr. Diane Morrison, la patrocinadora de la facultad, en dmorrison@luc.edu.

Si tiene preguntas sobre sus derechos como participante en la investigación, puede ponerse en contacto con la oficina de la universidad de Loyola de servicios de investigación al (773) 508-2689.

Al completar la encuesta a continuación, usted está indicando que ha leído la información proporcionada anteriormente, ha tenido la oportunidad de hacer preguntas, y está de acuerdo en participar en el estudio de investigación

1. ¿Cuál es la lengua materna de su hijo(s) en el programa de lenguaje dual?

   a. Inglés

   b. Español

   c. Otro: _____

2. ¿Cuál es el idioma que su hijo(s) prefiere hablar con sus padres?

   a. Inglés

   b. Español

   c. Otro: _____

3. ¿Cuál es el idioma que su hijo(s) prefiere hablar con sus hermanos/compañeros?

   a. Inglés

   b. Español

   c. Otro: _____

4. Por favor indique el nivel de grado actual de su hijo(s) en el programa de lenguaje dual.

   a. Kínder

   b. Primer grado

   c. Segundo grado

   d. Tercer grado

   e. Cuarto grado

   f. Quinto grado

   g. Sixto grado

    h. Séptimo grado

    i. Octavo grado

5. Por favor indique su nivel de satisfacción con el progreso de lectura de su niño(s) en el programa de lenguaje dual.

6. Por favor indique su nivel de satisfacción con el progreso de las matemáticas de su niño(s) en el programa de lenguaje dual.

7. Por favor indique su nivel de satisfacción con la adquisición de un segundo idioma de su niño(s) como resultado de la participación en el programa de lenguaje dual.

8. ¿Qué sugerencias, si existe alguna, tiene usted para mejorar el programa de lenguaje dual?

9. ¿Recomendaría el programa de lenguaje dual a otros padres? ¿Por qué o por qué no?

APPENDIX C

TESTS OF SIGNIFICANCE FOR READING ASSESSMENTS

Table C1

Tests of Significance for Fountas and Pinnell Assessments

	2012-2013 Cohort			
	Kruskal-Wallis Test	Mann-Whitney U Test Gr. 1 & Gr. 2	Mann-Whitney U Test Gr. 2 & Gr. 3	Mann-Whitney U Test Gr. 1 & Gr. 3
F&P Fall 2nd Grade	$\chi^2 = 31.315$ $p = .000$	$z = -5.183$ $p = .000$	$z = -4.746$ $p = .000$	$z = -.153$ $p = .878$
F&P Spring 2nd Grade	$\chi^2 = 28.557$ $p = .000$	$z = -4.172$ $p = .000$	$z = -4.916$ $p = .000$	$z = -1.882$ $p = .060$
F&P Growth	$\chi^2 = 19.533$ $p = .000$	$z = -4.127$ $p = .000$	$z = -3.536$ $p = .000$	$z = -1.003$ $p = .316$

	2013-2014 Cohort			
	Kruskal-Wallis Test	Mann-Whitney U Test Gr. 1 & Gr. 2	Mann-Whitney U Test Gr. 2 & Gr. 3	Mann-Whitney U Test Gr. 1 & Gr. 3
F&P Fall 1st Grade	$\chi^2 = 67.329$ $p = .000$	$z = -6.121$ $p = .000$	$z = -7.698$ $p = .000$	$z = -2.434$ $p = .015$
F&P Spring 1st Grade	$\chi^2 = 56.341$ $p = .000$	$z = -6.053$ $p = .000$	$z = -6.735$ $p = .000$	$z = -2.073$ $p = .038$
F&P Growth	$\chi^2 = 1.483$ $p = .476$			

	2014-2015 Cohort			
	Kruskal-Wallis Test	Mann-Whitney U Test Gr. 1 & Gr. 2	Mann-Whitney U Test Gr. 2 & Gr. 3	Mann-Whitney U Test Gr. 1 & Gr. 3
F&P Fall K	$\chi^2 = 22.221$ $p = .000$	$z = -3.961$ $p = .000$	$z = -4.753$ $p = .000$	$z = -.940$ $p = .347$
F&P Spring K	$\chi^2 = 64.205$ $p = .000$	$z = -6.109$ $p = .000$	$z = -7.430$ $p = .000$	$z = -2.724$ $p = .006$
F&P Growth	$\chi^2 = 23.940$ $p = .000$	$z = -3.874$ $p = .000$	$z = -4.329$ $p = .000$	$z = -2.076$ $p = .038$

Note: Significance level for Kruskal-Wallis Test was $p < .05$; significant level for Mann-Whitney U Test was $p < .017$ due to Bonferroni adjustment.

Table C2

Tests of Significance for Performance Series Assessments: 2007-2008 Cohort

	Kruskal-Wallis Test	Mann-Whitney U Test Gr. 1 & Gr. 2	Mann-Whitney U Test Gr. 2 & Gr. 3	Mann-Whitney U Test Gr. 1 & Gr. 3
Performance Series Fall 5th Grade	$\chi^2 = 25.137$ $p = .000$	$z = -4.475$ $p = .000$	$z = -3.780$ $p = .000$	$z = -1.175$ $p = .240$
Performance Series Spring 5th Grade	$\chi^2 = 28.726$ $p = .000$	$z = -4.7331$ $p = .000$	$z = -4.163$ $p = .000$	$z = -.668$ $p = .504$
Performance Series Fall 6th Grade	$\chi^2 = 25.653$ $p = .000$	$z = -4.567$ $p = .000$	$z = -3.574$ $p = .000$	$z = -.299$ $p = .765$
Performance Series Spring 6th Grade	$\chi^2 = 22.557$ $p = .000$	$z = -4.333$ $p = .000$	$z = -3.574$ $p = .000$	$z = -.138$ $p = .890$
Performance Series Fall 7th Grade	$\chi^2 = 24.795$ $p = .000$	$z = -4.700$ $p = .000$	$z = -3.534$ $p = .000$	$z = -.138$ $p = .890$
Performance Series Spring 7th Grade	$\chi^2 = 20.882$ $p = .000$	$z = -4.333$ $p = .000$	$z = -3.021$ $p = .003$	$z = -1.129$ $p = .259$
Performance Series Growth	$\chi^2 = 17.619$ $p = .000$	$z = -3.851$ $p = .000$	$z = -3.123$ $p = .002$	$z = -.049$ $p = .961$

Note: Significance level for Kruskal-Wallis Test was $p < .05$; significant level for Mann-Whitney U Test was $p < .017$ due to Bonferroni adjustment.

Table C3

Tests of Significance for Performance Series Assessments: 2008-2009 Cohort

	Kruskal-Wallis Test	Mann-Whitney U Test Gr. 1 & Gr. 2	Mann-Whitney U Test Gr. 2 & Gr. 3	Mann-Whitney U Test Gr. 1 & Gr. 3
Performance Series Fall 4th Grade	$\chi^2 = 15.619$ $p = .000$	$z = -3.945$ $p = .000$	$z = -2.481$ $p = .013$	$z = -.568$ $p = .571$
Performance Series Spring 4th Grade	$\chi^2 = 13.161$ $p = .001$	$z = -3.526$ $p = .000$	$z = -2.518$ $p = .012$	$z = -.227$ $p = .821$
Performance Series Fall 5th Grade	$\chi^2 = 12.473$ $p = .002$	$z = -3.500$ $p = .000$	$z = -2.171$ $p = .030$	$z = -.606$ $p = .544$
Performance Series Spring 5th Grade	$\chi^2 = 8.154$ $p = .017$	$z = -2.915$ $p = .004$	$z = -1.636$ $p = .102$	$z = -.231$ $p = .818$
Performance Series Fall 6th Grade	$\chi^2 = 7.914$ $p = .019$	$z = -2.651$ $p = .008$	$z = -2.109$ $p = .035$	$z = -.490$ $p = .624$
Performance Series Spring 6th Grade	$\chi^2 = 12.516$ $p = .002$	$z = -3.360$ $p = .001$	$z = -2.667$ $p = .008$	$z = .000$ $p = 1.000$
Performance Series Growth	$\chi^2 = 1.182$ $p = .554$			

Note: Significance level for Kruskal-Wallis Test was $p < .05$; significant level for Mann-Whitney U Test was $p < .017$ due to Bonferroni adjustment.

Table C4

Tests of Significance for Performance Series Assessments: 2009-2010 Cohort

	Kruskal-Wallis Test	Mann-Whitney U Test Gr. 1 & Gr. 2	Mann-Whitney U Test Gr. 2 & Gr. 3	Mann-Whitney U Test Gr. 1 & Gr. 3
Performance Series Fall 3rd Grade	$\chi^2 = 13.060$ $p = .001$	$z = -2.887$ $p = .004$	$z = -3.138$ $p = .002$	$z = -1.584$ $p = .113$
Performance Series Spring 3rd Grade	$\chi^2 = 33.964$ $p = .000$	$z = -4.637$ $p = .000$	$z = -5.086$ $p = .000$	$z = -2.204$ $p = .028$
Performance Series Fall 4th Grade	$\chi^2 = 30.202$ $p = .000$	$z = -4.571$ $p = .000$	$z = -4.678$ $p = .000$	$z = -2.033$ $p = .042$
Performance Series Spring 4th Grade	$\chi^2 = 30.202$ $p = .000$	$z = -4.915$ $p = .004$	$z = -4.608$ $p = .000$	$z = -.767$ $p = .443$
Performance Series Fall 5th Grade	$\chi^2 = 32.417$ $p = .000$	$z = -4.814$ $p = .000$	$z = -4.917$ $p = .000$	$z = -1.498$ $p = .134$
Performance Series Spring 5th Grade	$\chi^2 = 26.529$ $p = .000$	$z = -4.107$ $p = .000$	$z = -4.650$ $p = .000$	$z = -1.412$ $p = .158$
Performance Series Growth	$\chi^2 = 7.539$ $p = .023$	$z = -1.857$ $p = .063$	$z = -2.529$ $p = .011$	$z = -1.303$ $p = .193$

Note: Significance level for Kruskal-Wallis Test was $p < .05$; significant level for Mann-Whitney U Test was $p < .017$ due to Bonferroni adjustment.

Table C5

Tests of Significance for Performance Series Assessments: 2010-2011 Cohort

	Kruskal-Wallis Test	Mann-Whitney U Test Gr. 1 & Gr. 2	Mann-Whitney U Test Gr. 2 & Gr. 3	Mann-Whitney U Test Gr. 1 & Gr. 3
Performance Series Fall 2nd Grade	$\chi^2 = 25.079$ $p = .000$	$z = -3.896$ $p = .000$	$z = -5.997$ $p = .000$	$z = -.130$ $p = .897$
Performance Series Spring 2nd Grade	$\chi^2 = 49.953$ $p = .000$	$z = -5.159$ $p = .000$	$z = -5.629$ $p = .000$	$z = -1.242$ $p = .214$
Performance Series Fall 3rd Grade	$\chi^2 = 38.867$ $p = .000$	$z = -4.939$ $p = .000$	$z = -5.882$ $p = .000$	$z = -.711$ $p = .477$
Performance Series Spring 3rd Grade	$\chi^2 = 40.110$ $p = .000$	$z = -4.693$ $p = .000$	$z = -5.149$ $p = .000$	$z = -1.589$ $p = .112$
Performance Series Fall 4th Grade	$\chi^2 = 32.319$ $p = .000$	$z = -4.321$ $p = .000$	$z = -5.106$ $p = .000$	$z = -1.324$ $p = .185$
Performance Series Spring 4th Grade	$\chi^2 = 35.655$ $p = .000$	$z = -4.940$ $p = .000$	$z = -5.664$ $p = .000$	$z = -.964$ $p = .335$
Performance Series Growth	$\chi^2 = .046$ $p = .977$			

Note: Significance level for Kruskal-Wallis Test was $p < .05$; significant level for Mann-Whitney U Test was $p < .017$ due to Bonferroni adjustment.

Table C6

Tests of Significance for Performance Series Assessments: 2011-2012 Cohort

	Kruskal-Wallis Test	Mann-Whitney U Test Gr. 1 & Gr. 2	Mann-Whitney U Test Gr. 2 & Gr. 3	Mann-Whitney U Test Gr. 1 & Gr. 3
Performance Series Fall 2nd Grade	$\chi^2 = 22.615$ $p = .000$	$z = -3.494$ $p = .000$	$z = -4.445$ $p = .000$	$z = -.720$ $p = .471$
Performance Series Spring 2nd Grade	$\chi^2 = 23.857$ $p = .000$	$z = -3.499$ $p = .000$	$z = -4.530$ $p = .000$	$z = -1.407$ $p = .159$
Performance Series Fall 3rd Grade	$\chi^2 = 29.582$ $p = .000$	$z = -4.574$ $p = .000$	$z = -4.582$ $p = .000$	$z = -.920$ $p = .358$
Performance Series Spring 3rd Grade	$\chi^2 = 24.581$ $p = .000$	$z = -4.310$ $p = .000$	$z = -4.082$ $p = .000$	$z = -.020$ $p = .984$
Performance Series Growth	$\chi^2 = 3.194$ $p = .203$			

Note: Significance level for Kruskal-Wallis Test was $p < .05$; significant level for Mann-Whitney U Test was $p < .017$ due to Bonferroni adjustment.

Table C7

Tests of Significance for Performance Series Assessments: 2012-2013 Cohort

	Kruskal-Wallis Test	Mann-Whitney U Test Gr. 1 & Gr. 2	Mann-Whitney U Test Gr. 2 & Gr. 3	Mann-Whitney U Test Gr. 1 & Gr. 3
Performance Series Fall 2nd Grade	$\chi^2 = 26.993$ $p = .000$	$z = -4.095$ $p = .000$	$z = -4.947$ $p = .000$	$z = -1.591$ $p = .112$
Performance Series Spring 2nd Grade	$\chi^2 = 37.409$ $p = .000$	$z = -4.656$ $p = .000$	$z = -5.854$ $p = .000$	$z = -1.783$ $p = .075$
Performance Series Growth	$\chi^2 = 3.809$ $p = .149$			

Note: Significance level for Kruskal-Wallis Test was $p < .05$; significant level for Mann-Whitney U Test was $p < .017$ due to Bonferroni adjustment.

Table C8

Tests of Significance for ISAT Reading Assessments: 2007-2008 Cohort

	Kruskal-Wallis Test	Mann-Whitney U Test Gr. 1 & Gr. 2	Mann-Whitney U Test Gr. 2 & Gr. 3	Mann-Whitney U Test Gr. 1 & Gr. 3
ISAT Reading 3rd Grade	$\chi^2 = 20.078$ $p = .000$	$z = -4.314$ $p = .000$	$z = -3.287$ $p = .001$	$z = -1.139$ $p = .255$
ISAT Reading 4th Grade	$\chi^2 = 26.123$ $p = .000$	$z = -4.438$ $p = .000$	$z = -4.057$ $p = .000$	$z = -.949$ $p = .343$
ISAT Reading 5th Grade	$\chi^2 = 19.840$ $p = .000$	$z = -3.721$ $p = .000$	$z = 3.706$ $p = .000$	$z = -.532$ $p = .595$
ISAT Reading 6th Grade	$\chi^2 = 16.022$ $p = .000$	$z = -3.670$ $p = .000$	$z = -2.876$ $p = .004$	$z = -.830$ $p = .406$

Note: Significance level for Kruskal-Wallis Test was $p < .05$; significant level for Mann-Whitney U Test was $p < .017$ due to Bonferroni adjustment.

Table C9

Tests of Significance for ISAT Reading Assessments: 2008-2009 Cohort

	Kruskal-Wallis Test	Mann-Whitney U Test Gr. 1 & Gr. 2	Mann-Whitney U Test Gr. 2 & Gr. 3	Mann-Whitney U Test Gr. 1 & Gr. 3
ISAT Reading 3rd Grade	$\chi^2 = 17.984$ $p = .000$	$z = -4.258$ $p = .000$	$z = -2.549$ $p = .011$	$z = -.625$ $p = .532$
ISAT Reading 4th Grade	$\chi^2 = 15.533$ $p = .000$	$z = -3.939$ $p = .000$	$z = -2.493$ $p = .013$	$z = -.303$ $p = .762$
ISAT Reading 5th Grade	$\chi^2 = 9.204$ $p = .010$	$z = -3.057$ $p = .002$	$z = -1.136$ $p = .256$	$z = -1.194$ $p = .233$

Note: Significance level for Kruskal-Wallis Test was $p < .05$; significant level for Mann-Whitney U Test was $p < .017$ due to Bonferroni adjustment.

Table C10

Tests of Significance for ISAT Reading Assessments: 2009-2010 Cohort

	Kruskal-Wallis Test	Mann-Whitney U Test Gr. 1 & Gr. 2	Mann-Whitney U Test Gr. 2 & Gr. 3	Mann-Whitney U Test Gr. 1 & Gr. 3
ISAT Reading 3rd Grade	$\chi^2 = 34.083$ $p = .000$	$z = -4.898$ $p = .000$	$z = -4.989$ $p = .000$	$z = -1.956$ $p = .050$
ISAT Reading 4th Grade	$\chi^2 = 28.076$ $p = .000$	$z = -4.617$ $p = .000$	$z = -4.360$ $p = .000$	$z = -1.778$ $p = .075$

Note: Significance level for Kruskal-Wallis Test was $p < .05$; significant level for Mann-Whitney U Test was $p < .017$ due to Bonferroni adjustment.

Table C11

Tests of Significance for ISAT Reading Assessments: 2010-2011 Cohort

	Kruskal-Wallis Test	Mann-Whitney U Test Gr. 1 & Gr. 2	Mann-Whitney U Test Gr. 2 & Gr. 3	Mann-Whitney U Test Gr. 1 & Gr. 3
ISAT Reading 3rd Grade	$\chi^2 = 40.395$ $p = .000$	$z = -4.948$ $p = .000$	$z = -5.664$ $p = .000$	$z = -1.376$ $p = .169$

Note: Significance level for Kruskal-Wallis Test was $p < .05$; significant level for Mann-Whitney U Test was $p < .017$ due to Bonferroni adjustment.

Table C12

Tests of Significance for PARCC ELA Assessments

	Kruskal-Wallis Test	Mann-Whitney U Test Gr. 1 & Gr. 2	Mann-Whitney U Test Gr. 2 & Gr. 3	Mann-Whitney U Test Gr. 1 & Gr. 3
2007-2008 Cohort (7th Grade)	$\chi^2 = 21.049$ $p = .000$	$z = -4.302$ $p = .000$	$z = -3.207$ $p = .001$	$z = -.738$ $p = .460$
2008-2009 Cohort (6th Grade)	$\chi^2 = 7.150$ $p = .028$	$z = -2.668$ $p = .008$	$z = -1.613$ $p = .107$	$z = -.549$ $p = .583$
2009-2010 Cohort (5th Grade)	$\chi^2 = 34.459$ $p = .000$	$z = -4.670$ $p = .000$	$z = -5.002$ $p = .000$	$z = -2.545$ $p = .011$
2010-2011 Cohort (4th Grade)	$\chi^2 = 37.387$ $p = .000$	$z = -5.006$ $p = .000$	$z = -5.321$ $p = .000$	$z = -.491$ $p = .623$
2011-2012 Cohort (3rd Grade)	$\chi^2 = 24.224$ $p = .000$	$z = -4.108$ $p = .000$	$z = -4.196$ $p = .000$	$z = -.820$ $p = .412$

Note: Significance level for Kruskal-Wallis Test was $p < .05$; significant level for Mann-Whitney U Test was $p < .017$ due to Bonferroni adjustment.

APPENDIX D

TESTS OF SIGNIFICANCE FOR MATH ASSESSMENTS

Table D1

Tests of Significance for ISAT Math Assessments: 2007-2008 Cohort

	Kruskal-Wallis Test	Mann-Whitney U Test Gr. 1 & Gr. 2	Mann-Whitney U Test Gr. 2 & Gr. 3	Mann-Whitney U Test Gr. 1 & Gr. 3
ISAT Math 3rd Grade	$\chi^2 = 17.788$ $p = .000$	$z = -3.857$ $p = .000$	$z = -3.327$ $p = .001$	$z = -.109$ $p = .913$
ISAT Math 4th Grade	$\chi^2 = 18.982$ $p = .000$	$z = -3.654$ $p = .000$	$z = -3.617$ $p = .000$	$z = -.507$ $p = .612$
ISAT Math 5th Grade	$\chi^2 = 20.715$ $p = .000$	$z = -3.803$ $p = .000$	$z = -3.816$ $p = .000$	$z = .000$ $p = 1.000$
ISAT Math 6th Grade	$\chi^2 = 16.930$ $p = .000$	$z = -3.754$ $p = .000$	$z = -3.062$ $p = .002$	$z = -.392$ $p = .695$

Note: Significance level for Kruskal-Wallis Test was $p < .05$; significant level for Mann-Whitney U Test was $p < .017$ due to Bonferroni adjustment.

Table D2

Tests of Significance for ISAT Math Assessments: 2008-2009 Cohort

	Kruskal-Wallis Test	Mann-Whitney U Test Gr. 1 & Gr. 2	Mann-Whitney U Test Gr. 2 & Gr. 3	Mann-Whitney U Test Gr. 1 & Gr. 3
ISAT Math 3rd Grade	$\chi^2 = 15.882$ $p = .000$	$z = -3.845$ $p = .000$	$z = -2.756$ $p = .006$	$z = -.587$ $p = .557$
ISAT Math 4th Grade	$\chi^2 = 18.118$ $p = .000$	$z = -4.119$ $p = .000$	$z = -3.019$ $p = .003$	$z = -.038$ $p = .970$
ISAT Math 5th Grade	$\chi^2 = 16.200$ $p = .000$	$z = -3.855$ $p = .000$	$z = -2.173$ $p = .030$	$z = -1.659$ $p = .097$

Note: Significance level for Kruskal-Wallis Test was $p < .05$; significant level for Mann-Whitney U Test was $p < .017$ due to Bonferroni adjustment.

Table D3

Tests of Significance for ISAT Math Assessments: 2009-2010 Cohort

	Kruskal-Wallis Test	Mann-Whitney U Test Gr. 1 & Gr. 2	Mann-Whitney U Test Gr. 2 & Gr. 3	Mann-Whitney U Test Gr. 1 & Gr. 3
ISAT Math 3rd Grade	$\chi^2 = 23.125$ $p = .000$	$z = -4.066$ $p = .000$	$z = -4.111$ $p = .000$	$z = -1.512$ $p = .130$
ISAT Math 4th Grade	$\chi^2 = 23.025$ $p = .000$	$z = -4.240$ $p = .000$	$z = -3.992$ $p = .000$	$z = -1.172$ $p = .241$

Note: Significance level for Kruskal-Wallis Test was $p < .05$; significant level for Mann-Whitney U Test was $p < .017$ due to Bonferroni adjustment.

Table D4

Tests of Significance for ISAT Math Assessments: 2010-2011 Cohort

	Kruskal-Wallis Test	Mann-Whitney U Test Gr. 1 & Gr. 2	Mann-Whitney U Test Gr. 2 & Gr. 3	Mann-Whitney U Test Gr. 1 & Gr. 3
ISAT Math 3rd Grade	$\chi^2 = 29.736$ $p = .000$	$z = -3.941$ $p = .000$	$z = -4.974$ $p = .000$	$z = -1.767$ $p = .077$

Note: Significance level for Kruskal-Wallis Test was $p < .05$; significant level for Mann-Whitney U Test was $p < .017$ due to Bonferroni adjustment.

Table D5

Tests of Significance for PARCC Math Assessments

	Kruskal-Wallis Test	Mann-Whitney U Test Gr. 1 & Gr. 2	Mann-Whitney U Test Gr. 2 & Gr. 3	Mann-Whitney U Test Gr. 1 & Gr. 3
2007-2008 Cohort (7th Grade)	$\chi^2 = 16.546$ $p = .000$	$z = -3.585$ $p = .000$	$z = -3.169$ $p = .002$	$z = -.507$ $p = .612$
2008-2009 Cohort (6th Grade)	$\chi^2 = 11.251$ $p = .004$	$z = -3.180$ $p = .001$	$z = -2.452$ $p = .014$	$z = -.608$ $p = .543$
2009-2010 Cohort (5th Grade)	$\chi^2 = 26.224$ $p = .000$	$z = -4.486$ $p = .000$	$z = -4.288$ $p = .000$	$z = -1.298$ $p = .194$
2010-2011 Cohort (4th Grade)	$\chi^2 = 32.364$ $p = .000$	$z = -4.217$ $p = .000$	$z = -5.097$ $p = .000$	$z = -1.873$ $p = .061$
2011-2012 Cohort (3rd Grade)	$\chi^2 = 19.523$ $p = .000$	$z = -3.534$ $p = .000$	$z = -3.909$ $p = .000$	$z = -.690$ $p = .490$

Note: Significance level for Kruskal-Wallis Test was $p < .05$; significant level for Mann-Whitney U Test was $p < .017$ due to Bonferroni adjustment.

REFERENCE LIST

Alanis, I., & Rodriguez, M. A. (2008). Sustaining a dual language immersion program: Features of success. *Journal of Latinos & Education, 7*(4), 305-319. doi:10.1080/15348430802143378

Andres, L. (2012). *Designing & doing survey research.* Thousand Oaks, CA: SAGE Publications.

Bae, J. (2007). Development of English skills need not suffer as a result of immersion: Grades 1 and 2 writing assessment in a Korean/English two-way immersion program. *Language Learning, 57*(2), 299-332.

Bearse, C., & de Jong, E. J. (2008). Cultural and linguistic investment: Adolescents in a secondary two-way immersion program. *Equity & Excellence in Education, 41*(3), 325-340. doi:10.1080/1066568080 2174817

Beeman, K. & Urow, C. (2013). *Teaching for biliteracy: Strengthening bridges between languages.* Philadelphia, PA: Caslon, Inc.

Brown, J. E., & Doolittle, J. (2008). *A cultural, linguistic, and ecological framework for response to intervention with English language learners.* National Center for Culturally Responsive Educational Systems. Retrieved from Center on Response to intervention at American Institutes for Research website http://www.rti4success.org/resource/cultural-linguistic-and-ecological-approach-response-intervention-english-language-learners

Burr, E., Haas, E., & Ferriere, K. (2015). *Identifying and supporting English learner students with learning disabilities: Key issues in the literature and state practice* (REL 2015-086). Washington, DC: U.S. Department of Education, Institute of Education Sciences, National Center for Education Evaluation and Regional Assistance, Regional Educational Laboratory West. Retrieved from Regional Educational Laboratory website http://ies.ed.gov/ncee/edlabs/regions/west/pdf/REL_2015086.pdf

Bylund, J. (2011). Thought and second language: A Vygotskian framework for understanding BICS and CALP. *Communique, 39*(5), 4-6.

Christian, D., Howard, E. R., & Loeb, M. I. (2000). Bilingualism for all: Two-way immersion education in the United States. *Theory into Practice, 39*(4), 258-266. doi:10.1207/s15430421tip3904_9

Cobb, B., Vega, D., & Kronauge, C. (2006). Effects of an elementary dual language immersion school program on junior high school achievement. *Middle Grades Research Journal, 1,* 27-47.

Collier, V., Thomas, W., & Tinajero, J. (2006). From remediation to enrichment: Transforming Texas schools through dual language education. *TABE Journal, 9*(1), 23-34.

Creswell, J. W., & Plano Clark, V. L. (2011). *Designing and conducting mixed methods research* (2nd ed.). Los Angeles, CA: SAGE.

Cummins, J. (1981). Empirical and theoretical underpinnings of bilingual education. *The Journal of Education, 163*(1), 16-29.

de Jong, E. J. (2002). Effective bilingual education: From theory to academic achievement in a two-way bilingual program. *Bilingual Research Journal, 26*(1), 65-84.

Efron, S. E., & Ravid, R. (2013). *Action research in education: A practical guide.* New York, NY: The Guilford Press.

Escamilla, K., Hopewell, S., Butvilosky, S., Sparrow, W., Soltero-Gonzalez, L., Ruiz-Figueroa, O., & Escamilla, M. (2014). *Biliteracy from the start: Literacy squared in action.* Philadelphia, PA: Caslon Publishing.

Feinauer, E., Hall-Kenyon, K. M., & Davison, K. C. (2013). Cross-language transfer of early literacy skills: An examination of young learners in a two-way bilingual immersion elementary school. *Reading Psychology, 34,* 436-460.

Gerena, L. (2010). Parental voice and involvement in cultural context: Understanding rationales, values, and motivational constructs in a dual immersion setting. *Urban Education, 46*(3), 342-370.

Giacchino-Baker, R., & Piller, B. (2006). Parental motivation, attitudes, support, and commitment in a southern Californian two-way immersion program. *Journal of Latinos & Education, 5*(1), 5-28. doi:10.1207/s1532771xjle0501_2

Gómez, L., Freeman, D., & Freeman, Y. (2005). Dual language education: A promising 50-50 model. *Bilingual Research Journal, 29*(1), 145-164.

Hamayan, E., Genesee, F., & Cloud, N. (2013). *Dual language instruction from a to z: Practical guidance for teachers and administrators.* Portsmouth, NH: Heinemann.

Heinemann (n.d.). *Field study of reliability and validity of the Fountas & Pinnell benchmark assessment systems 1 and 2.* Retrieved from http://www.heinemann.com/fountasandpinnell/research/BASFieldStudyFull Report.pdf

Hosp, J. L. (n.d.). *Response to intervention and the disproportionate representation of culturally and linguistically diverse students in special education.* Retrieved from Response to Intervention Network website http://www.rtinetwork.org/learn/diversity/disproportionaterepresentation

Howard, E. R., & Sugarman, J. (2009). *Program models and the language of initial literacy in two-way immersion programs* [PowerPoint slides]. Retrieved from Center for Applied Linguistics website http://www.cal.org/twi/literacylanguage.htm

Howard, E. R., Sugarman, J., Christian, D., Lindholm-Leary, K. J., & Rogers, D. (2007). *Guiding principles for dual language education* (2nd ed.). Washington, DC: Center for Applied Linguistics.

Illinois Resource Center (2012). *Illinois resource center dual language directory of Illinois.* Retrieved from Illinois Resource Center website http://www.thecenterweb.org/irc/pages/dual-directory.html

Illinois State Board of Education. (2002). *Serving English language learners with disabilities: A resource manual for Illinois educators.* Springfield, IL: Illinois State Board of Education. Retrieved from Illinois State Board of Education website http://www.isbe.net/bilingual/pdfs/bilingual_manual2002.pdf

Illinois State Board of Education. (2011). *Illinois standards achievement test: 2011 technical manual.* Retrieved from Illinois State Board of Education website http://www.isbe.net/assessment/pdfs/isat_tech_2011.pdf

Illinois State Board of Education. (2014). *Illinois standards achievement test: 2014 technical manual.* Retrieved from Illinois State Board of Education website http://www.isbe.net/assessment/pdfs/isat_tech_2014.pdf

Illinois State Board of Education. (2015). *FAQs PARCC assessment.* Retrieved from Illinois State Board of Education website http://www.isbe.net/assessment/pdfs/parcc/2015/faqs.pdf

Leech, N. L., & Onwuegbuzie, A. J. (2008). Qualitative data analysis: A compendium of techniques and a framework for selection for school psychology research and beyond. *School Psychology Quarterly, 23*(4), 587-604.

Lindholm-Leary, K. J. (2001). *Dual language education.* Clevedon, England: Multilingual Matters.

Lindholm-Leary, K. J. (2005). The rich promise of two- way immersion. *Educational Leadership, 62*(4), 56-59.

Lindholm-Leary, K. (2012). Success and challenges in dual language education. *Theory into Practice, 51,* 256-262. doi:10.1080/00405841.2012.726053

Lindholm-Leary, K., & Borsato, G. (2005). Hispanic high schoolers and mathematics: Follow-up of students who had participated in two-way bilingual elementary programs. *Bilingual Research Journal, 29*(3), 641-652.

López, M. (2013). Mothers choose: Reasons for enrolling their children in a two-way immersion program. *Bilingual Research Journal, 36*(2), 208-227. doi:10.1080/15235882.2013.818595

López, L. M., & Tápanes, V. (2011). Latino children attending a two-way immersion program in the United States: A comparative case analysis. *Bilingual Research Journal, 34*(2), 142-160. doi:10.1080/15235882.2011.598087

Marian, V., Shook, A., & Schroeder, S. R. (2013). Bilingual two-way immersion programs benefit academic achievement. *Bilingual Research Journal, 36*(2), 167-186. doi:10.1080/15235882.2013.818075

Northern Illinois University. (2014). *Illinois interactive report card.* Illinois State Board of Education. Retrieved from Illinois Interactive Report Card website http://iirc.niu.edu/Classic/Default.aspx

Ovando, C. J. (2003). Bilingual education in the United States: Historical development and current issues. *Bilingual Research Journal, 27*(1), 1-24.

Padilla, A. M., Fan, L., Xu, X., & Silva, D. (2013). A Mandarin/English two-way immersion program: Language proficiency and academic achievement. *Foreign Language Annals, 46*(4), 661-679. doi:10.1111/flan.12060

Pallant, J. (2013). *SPSS survival manual* (5th ed.). New York, NY: McGraw Hill.

Partnership for Assessment of Readiness for College and Careers. (2015). *Test design: Annual assessment design*. Retrieved from http://www.parcconline.org/assessments/test-design

Rhodes, R. L., Ochoa, S. H., & Ortiz, S. O. (2005). *Assessing culturally and linguistically diverse students*. K. W. Merrell (Ed.). New York, NY: The Guilford Press.

Scantron Corporation. (2004). *Performance series computer adaptive internet assessment for schools: Technical manual*. San Diego, CA: Scantron Corporation. Retrieved from http://www.bcvic.net/bcps/bcps-edperformance/PerformanceTechManual.pdf

Shannon, S. M., & Milian, M. (2002). Parents choose dual language programs in Colorado: A survey. *Bilingual Research Journal, 26*(3), 681-696.

Sheffer, C. S. (2003). Parents' lack of understanding of their children's bilingual education program. *Bilingual Research Journal, 27*(2), 333-341.

Shneyderman, A., & Abella, R. (2009). The effects of the extended foreign language programs on Spanish-language proficiency and academic achievement in English. *Bilingual Research Journal, 32*(3), 241-259.

Thomas, W. P., & Collier, V. P. (1997). *School effectiveness for language minority students*. Washington, DC: National Clearinghouse for Bilingual Education. Retrieved from http://www.thomasandcollier.com/assets/1997_thomas-collier97-1.pdf

Thomas, W. P., & Collier, V. P. (2002). *A national study of school effectiveness for language minority students' long-term academic achievement*. Retrieved from Center for Research on Education, Diversity, and Excellence website http://www.usc.edu/dept/education/CMMR/CollierThomasComplete.pdf

Thomas, W. P., & Collier, V. P. (2012). *Dual language education for a transformed world*. Albuquerque, NM: Dual Language Education of New Mexico Fuente Press.

Torres-Guzmán, M. E., Kleyn, T., Morales-Rodríguez, S., & Han, A. (2005). Self-designated dual-language programs: Is there a gap between labeling and implementation? *Bilingual Research Journal, 29*(2), 453-474.

WIDA. (2014). *ACCESS for ELLs summative assessment*. Retrieved from WIDA website https://www.wida.us/assessment/ACCESS/

VITA

Nicole Folsom is the daughter of Nicanor and Ruby Cajindos. She was born in Chicago, Illinois on December 10, 1986, and she grew up in the southwest suburbs of Chicago. Nicole currently lives in Woodridge, Illinois with her husband, Michael, who is a high school special education teacher. Nicole received a Bachelor of Science degree in Psychology from the University of Illinois at Urbana-Champaign and graduated Summa Cum Laude in 2008. In 2011, she received her Specialist in School Psychology degree from Illinois State University. Nicole completed a Master of Arts degree in School Leadership from Concordia University Chicago and received a General Administrative (K-12) endorsement in 2014. She entered the Doctor of Education in School Psychology program at Loyola University Chicago in fall 2014; Nicole plans to complete this degree in August 2016 with a concentration in Mental Health.

This is Nicole's fifth year working as a school psychologist in the public schools in the western suburbs of Chicago. She spent the first three years of her career in a middle school in Glen Ellyn School District 41, and she has been working at the elementary level for the past two years in Naperville Community Unit School District 203. Currently, the two schools in which Nicole works both house dual language classrooms. In addition to her interest in English learners and dual language programs, Nicole has had significant experiences, both in the schools and in other settings, working with children with behavioral and emotional disorders.

DOCTORAL RESEARCH PROJECT COMMITTEE

The Doctoral Research Project submitted by Nicole C. Folsom has been read and approved by the following committee:

Diane Morrison, Ed.D., Director
Assistant Professor, School of Education
Loyola University Chicago

Rosario Pesce, Ph.D.
Clinical Assistant Professor, School of Education
Loyola University Chicago

Marion Friebus-Flaman, Ph.D.
Director of Language Acquisition
Naperville Community Unit School District 203

DOCTORAL RESEARCH PROJECT APPROVAL SHEET

The Doctoral Research Project submitted by Nicole C. Folsom has been read and approved by the following committee:

Diane Morrison, Ed.D., Director
Assistant Professor, School of Education
Loyola University Chicago

Rosario Pesce, Ph.D.
Clinical Assistant Professor, School of Education
Loyola University Chicago

Marion Friebus-Flaman, Ph.D.
Director of Language Acquisition
Naperville Community Unit School District 203

The final copy has been examined by the director of the Doctoral Research Project and the signature which appears below verifies the fact that any necessary changes have been incorporated and that the Doctoral Research Project is now given final approval by the committee with reference to content and form.

The Doctoral Research Project is therefore accepted in partial fulfillment of the requirement for the degree of Doctor of Education.

_5-2-16_

Date

Diane M. Morrison

Director's Signature