

2013-01-01

Evaluation Of Language Of Intervention On Expressive-Receptive Lexical Skills For Preschool Bilingual Children

Blanca Estela Cisneros

University of Texas at El Paso, becisneros11@yahoo.com

Follow this and additional works at: https://digitalcommons.utep.edu/open_etd



Part of the [Speech and Hearing Science Commons](#), and the [Speech Pathology and Audiology Commons](#)

Recommended Citation

Cisneros, Blanca Estela, "Evaluation Of Language Of Intervention On Expressive-Receptive Lexical Skills For Preschool Bilingual Children" (2013). *Open Access Theses & Dissertations*. 1803.

https://digitalcommons.utep.edu/open_etd/1803

This is brought to you for free and open access by DigitalCommons@UTEP. It has been accepted for inclusion in Open Access Theses & Dissertations by an authorized administrator of DigitalCommons@UTEP. For more information, please contact lweber@utep.edu.

EVALUATION OF LANGUAGE OF INTERVENTION ON EXPRESSIVE-
RECEPTIVE LEXICAL SKILLS FOR PRESCHOOL BILINGUAL CHILDREN

BLANCA ESTELA PARRA-CISNEROS, BIS

Department of Speech Language Pathology

APPROVED:

Connie L. Summers, Ph.D., M.S. CCC-SLP

Bess Sirmon-Taylor, Ph.D., M.S. CCC-SLP

Barbara Schoen, Ph.D.

Benjamin C, Flores, Ph.D.,
Dean of the Graduate School

Copyright
by
Blanca Estela Parra-Cisneros
2013

DEDICATION

I dedicate my thesis work to my family and friends. Mom, you are my biggest cheerleader, my infallible support system and the most compassionate person I know. Thank you for consistent and edifying kind words of unconditional love. For my Dad, you have given me one of the most valuable lessons in life, in the face of adversity, buckle down, push through, think and persevere. To my siblings, thank you for the love and gut busting laughs when I needed them. Para mis suegros, por el apoyo, la ayuda durante este proceso y las oraciones por mí. For my Mia Estela and Georgie baby, thank you for the glasses of water, covering me at night, helping me with housework and for your patience during this process. Know that mommy loves to infinitely and you have made me so proud. Finalmente, para mi viejito Jorge. Viejito, eres mi pilar y mi fundación. Gracias por el apoyo y la paciencia. Eres un hombre de valor y soy profundamente bendecida que eres mi amor.

EVALUATION OF LANGUAGE OF INTERVENTION ON EXPRESSIVE-
RECEPTIVE LEXICAL SKILLS FOR PRESCHOOL BILINGUAL CHILDREN

by

BLANCA ESTELA PARRA-CISNEROS, BIS

THESIS

Presented to the Faculty of the Graduate School of

The University of Texas at El Paso

in Partial Fulfillment

of the Requirements

for the Degree of

MASTER OF SCIENCE

Department of Speech-Language Pathology

THE UNIVERSITY OF TEXAS AT EL PASO

May 2013

ACKNOWLEDGEMENTS

I wish to thank my committee members who dedicated their time and effort in helping me with my thesis work. I would like to provide a sincere thank you to Dr. Sirmon-Taylor who was always available to me when I peeked through her office door. I want to give the most special thanks to Dr. Connie L. Summers, who provided many hours in guidance, editing, and helping me through this process. Dr. Summers and Dr. Sirmon-Taylor, the Lord has truly graced you in being spectacular professors. I also would like to extend a thank you to the parents and participants who volunteered to participate and make this study possible.

ABSTRACT

The purpose of the study was to evaluate the expressive-receptive lexical skills gained in bilingual preschool children for both their native language (L1) and second language (L2) when provided a bilingual vocabulary intervention and compared to contrasting monolingual and controlled conditions. This group study assessed four treatment conditions: monolingual English intervention, monolingual Spanish intervention, bilingual English-Spanish intervention, and a controlled intervention condition receiving math instruction. English and Spanish expressive and receptive lexical skills were the dependent variables measured at pretest and posttest. After a brief 4 week intervention block, the bilingual group achieved greater gains in Spanish expressive lexical skills when compared to a monolingual language of intervention group or a controlled intervention condition. The Spanish intervention group achieved gains across English expressive and receptive and Spanish expressive and receptive; however, their gains were less than gains seen in the bilingual group. The English intervention group exhibited gains in English receptive and expressive lexical skills but experienced a decrease in Spanish expressive and receptive skills. The controlled condition exhibited gains in English and Spanish receptive skills, a decrease in English receptive skills and no change in Spanish expressive skills. Overall, in a cumulative evaluation of Spanish and English expressive-receptive lexical skills, the bilingual group demonstrated the greatest gains in lexical skills when compared to the Spanish, English and controlled condition within a 4 week intervention block.

TABLE OF CONTENTS

ACKNOWLEDGEMENTS	v
ABSTRACT	vi
TABLE OF CONTENTS	vii
LIST OF TABLES	ix
LIST OF FIGURES	x
Chapter 1: INTRODUCTION.....	1
1.1 Diversity in United States	1
1.2 Language of Intervention-Bilingualism	4
1.3 Dual language learners.....	5
1.4 Language of Intervention- Benefits	6
1.5 Language of Intervention Studies	7
1.6 Purpose	9
Chapter 2: METHODS	10
2.1 Research Design – Independent/Dependent variables	10
2.2 Participants	10
2.3 Measures	11
2.4 Equipment	12
2.5 Development of target lexicon	13
2.6 Procedure-	15
2.6.1 Pretesting phase	15
2.6.2 Intervention phase	16
2.6.3 Posttesting phase.....	20
2.7 Scoring and Analysis	20
Chapter 3: RESULTS	21
3.1 Descriptive Results	21
3.2 Statistical Analysis.....	22
3.2.1 Spanish Measures.....	22

3.2.2 English Measures	24
3.2.3 Cumulative Expressive-Receptive skills.....	25
Chapter 4: CONCLUSION AND DISCUSSION	27
4.1 Outcome Measures.....	27
4.2 Receptive/Expressive tasks	27
4.2.1 Bilingual group	27
4.2.2 Spanish group.....	28
4.2.3 English group	29
4.2.4 Control group	30
4.3 Overall performance	32
4.4 Conclusion	32
4.5 Implications.....	33
4.6 Limitations	34
REFERENCES	36
APPENDIX.....	38
CURRICULUM VITA	44

LIST OF TABLES

Table 2.1: Participant demographics.....	11
Table 2.2: Descriptive Statistics.	12
Table 2.3: Target Lexicon	14
Table 3.1: Spanish Means and Standard Deviations (<i>SD</i>)	21
Table 3.2: English Means and Standard Deviations (<i>SD</i>) Statistical Analysis	22
Table 3.3: Spanish Statistical Analysis	22
Table 3.4: English Statistical Analysis	24
Table 3.5: Cumulative Lexical Statistical Analysis	25

LIST OF FIGURES

Figure 3.1: Spanish Receptive Group Means (<i>SR Group means</i>)	23
Figure 3.2: Spanish Expressive Group Means (<i>SX Group means</i>)	24
Figure 3.3: Cumulative Expressive-Receptive Group means	26
Figure 3.4: Overall means rate of increase/decrease	26

CHAPTER 1: INTRODUCTION

1.1 Diversity in the United States

The 2010 Census Briefs estimates that the United States population was comprised of 50.5 million Hispanics, making it the fastest growing ethnic demographic in America. Growth has increased by 52.3% over the last decade impacting the total population by a 3% gain (U.S. Census Briefs, 2010). Currently, 11.2 million children between the ages of 5-17 speak a second language other than English at home (U.S. Department of Education, National Center for Education Statistics, 2012). Additionally, the National Center for Educational Statistics project an increase of 24% of Hispanics and 26% of Asian/Pacific Islanders enrolling in public elementary and secondary schools between 2010- 2021 (U.S. Department of Education, National Center for Education Statistics, 2012). Population changes will increase the demand for bilingual educators and service providers over the next decade. In addition to the increasing demand of bilingual service providers, bilingual children also require special services to meet their individual needs, such as language and communication skills in two languages. This study aims to evaluate speech and language services provided to bilingual children. An important question when delivering language therapy to bilingual children is: what language do I treat? Before addressing this question further, we will briefly look at current speech language pathologist linguistic performance

As discussed above, there is an expanding demographic of linguistic and culturally diverse students. This expansion becomes problematic when bilingual children enter public schools and require special education services. The Individuals with Disabilities Act 2004 states that students identified with disabilities will be provided special education services related to their disabilities. Specifically, providing speech and language therapy services for bilingual children with language disorders becomes a multidimensional issue due to cultural and linguistic disparities across professionals and children, such as language proficiencies, language variations, dialectal differences and cultural views, (Artiles, Kozleski, Trent, Osher, & Ortiz, 2010; Stein, Flores, Graham, Magana, Willes-Jacobo, 2004; Kritikos,

2003; Kayser, 1996). Language skills for bilingual children are influenced by regional differences (West, East, South-east), cultural differences (Mexican, Cuban, Puerto-Rican influences), and proficiency levels for the first language (L1) and second language (L2). Additionally, language proficiencies in L1 and L2 fall on a continuum from basic interpersonal communication skills (BIC) to cognitive academic language proficiency skills (CALP) (Cummins, 1980). BIC skills are simple language skills acquired between 6 months to 2 year time span and allow for basic daily functional social communication (Cummins, 1980). CALP skills are academically developed language skills that involve formal academic learning of a language, such as reading, writing, content vocabulary and require five to seven years to develop (Cummins, 1980). These specific yet complex linguistic skills and disparities across bilingual children and education professionals are seldom recognized but are problematic due to the direct impact it has on assessment and evaluation of student performance. Artiles et. al (2010) elaborate that “the dominant (school’s or teacher’s) cultural frame is used to make decisions about highly consequential matters, such as what counts as learning, who exhibits disruptive behavior, and who is disabled” (288). These cultural views influence treatment, assessment interpretation, referrals and recommendations through their thoughts, actions and associations (Artiles, Kozleski, Trent, Osher, & Ortiz, 2010). This study aims to address the treatment component of speech and language services provided bilingual children.

Current evidence suggests that most speech language pathologists do not feel confident in providing services for bilingual individuals. A survey evaluating the confidence and training on serving English-Spanish bilingual students from 213 practicing speech language pathologists (SLPs) revealed that most SLPs rely heavily on education (undergraduate, graduate or continuing education) or job training for multicultural/multilinguistic issues to address the threat of providing biased or inappropriate services to the growing bilingual population (Spanish-English) entering public schools (Hammer,

Detwiler, Detwiler, Blood, & Qualls, 2003). One third of the participants did not receive any training or education.

Current evidence evaluating the readiness and philosophies of developing and practicing speech language pathologists (SLPs) in response to the increasing demand of the bilingual demographic reveals that most SLPs did not feel competent in serving linguistically and culturally diverse communities in regards to assessment and identification for language disorders (Kritikos, 2003; Hammer, et al., 2003). Evidence also revealed that SLPs cultural and linguistic profile impacted planning, delivery, subjective interpretation of assessment and instruction leading to under or over identification of language disorders in diverse communities (Kritikos, 2003). More specifically, SLPs who were monolingual and providing academic language or cultural linguistic support to a child's second language reported they did not feel competent or somewhat competent in assessing bilingual individuals (Kritikos, 2003). Forty percent of the SLPs surveyed from diverse backgrounds reported they would not be able to provide equal treatment in providing referrals for bilingual individuals (Kritikos, 2003). Practicing SLPs who participated in this study expressed different concerns when making assessment decisions stemming from insufficient knowledge of the second language, inadequate language proficiency, and insufficient cultural experience (Kritikos, 2003). A study evaluating the confidence of bilingual clinicians matching the linguistic profile of English/Spanish bilingual children were significantly more confident than their monolingual peers who used an interpreter in assessment and delivering services to bilingual children and their parents. However, the study did not provide a detailed report operationally defining the delivery of intervention for bilingual students by bilingual SLPs (Hammer, Detwiler, Detwiler, Blood, & Qualls, 2003). Due to the limited research addressing multiple issues discussed above, this study seeks to address the ambiguity in delivering an intervention to bilingual children by bilingual speech language pathology students and evaluate specific variables, such as languages targeted, when treating bilingual children of various language proficiencies.

1.2 Language of Intervention-Bilingualism

Bilingualism is a multidimensional linguistic profile that directly reflects a number of environmental and social parameters. Vygotsky's work in child development provided the social interactionist theory that language acquisition occurs through multiple social interactions between a child and adults across varied social contexts after having been assisted within a child's zone of proximal development (ZPD) (Khatib, 2011). Children are provided the necessary linguistic support and comprehensible input within the ZPD to contribute in language development. Furthermore, language is viewed as a tool used for functional communication across various social contexts. It is due to these linguistic demands across varied social environments that individuals become bilingual and develop differently than monolingual speakers (Khatib, 2011).

Bilingual individuals develop a distinctive linguistic framework where proficiency levels and language skills, such as lexicon, develop differently across time for each language when compared to monolingual individuals (Kohnert, Bates, Hernandez, 1999; Peña, Bedore, Rappazzo, 2003). During language acquisition and development, academic and remedial support is necessary to foster a positive and conducive partnership between parents and educators for healthy language development (Kan & Kohnert, 2005). Bilingualism has been known to provide positive cognitive benefits such as improved working memory, executive function, metalinguistic skills, reading skills and analytic orientation to linguistic input (Ben-Zeev 1977; Westly, 2011; Carlson & Meltzoff, 2008). Evidence also reveals that bilingual individuals outperform monolinguals in processing verbal material, discriminating perceptual differences, inclination to search for structure in perceptual situations and reorganization of perceptions in response to responses (Ben-Zeev 1977; Westly, 2011; Carlson & Meltzoff, 2008).

Consequently, these positive cognitive benefits can help speech language pathologists provide effective speech and language rehabilitation for bilingual individuals by capitalizing on their skills to remediate language deficits. A study evaluating metalinguistic development skills in bilingual

individuals under a bilingual intervention condition (treating two language simultaneously) revealed that learning two languages accelerates the development of some metalinguistic skills, such as grammar concepts, in young children and does not negatively impact the course of language development (Galambos & Goldin-Meadow, 1990). A SLP can target both languages by accessing a complete linguistic schema by delivering an intervention targeting both languages at once, known as a bilingual language of intervention, to improve and strengthen existing language skills to yield gains for both languages (Kohnert, 2007). Targeting both languages using a bilingual language of intervention fortifies communication skills across various contexts, home and school; thus, increasing linguistic support for healthy language development. A language intervention for bilinguals should never mirror interventions of a monolingual speaker due to different individual's linguistic abilities (Kohnert, 2007). Exclusively treating one language only hinders language development further thus transforming a “disorder into a handicap” (Kohnert, 2007, pp. 144). It is also important to note that language disorders are not further weakened or caused by bilingualism or improved through providing monolingual treatment (Kohnert, 2007).

1.3 Dual language learners

Early evidence suggests that language intervention for bilingual children should be delivered in a child's first language (L1) (Cummins, 1979; Cummins, 1984; Goldstein, 2004; Kohnert, 2007). This theoretical orientation falls under the linguistic interdependence hypothesis proposed by Cummins (1979). The linguistic interdependence model posits that proficiency skills in the first language (L1) will transfer into the second language (L2) if there is adequate exposure in the second language via environmental exposure and an increased motivation to learn (Cummins, 1979). Cummins (1980) also suggests that both L1 and L2 are interrelated and interdependent and are activated simultaneously in bilingual individuals. Early evidence also suggests that interventions in a child's L1 facilitates language development in L2 through the process of relating conceptual knowledge and experiences to novel

lexical terms in L2 (Cummins, 1984; Kohnert, 2007; Goldstein, 2004). Cummins elaborates that there is a “common underlying proficiency” that links both languages simultaneously which allows English Language Learners (ELL) to capitalize on existing semantic schemas to learn novel lexical items in L2; thus creating a dual language learning system (Lugo-Neris, Jackson, & Goldstein, 2010). Research has affirmed that dual language learners typically expand their lexical skills based on their conceptual knowledge accessed through either L1 or L2 when provided intervention in L1 (Cummins, 1984). However, if a bilingual child lacks the proficiency due to linguistic deficits in both languages, does providing a language intervention in L1 hinder language development for the bilingual child? Early evidence suggests it does further hinder language development in bilingual individuals. Understanding and recognizing that bilingual individuals have two languages that comprise their linguistic system can help serve as an additional linguistic strength to build on and compensate for their language deficits and aid professionals in identifying the best delivery language model of intervention (Kohnert, 2007). It allows for an individual to access their complete linguistic abilities and cognitive strengths to rehabilitate linguistic weaknesses experienced through the active use their entire linguistic schema.

1.4 Language of intervention- Benefits

The language of intervention is a choice a clinician makes to support one or both languages during intervention to bilingual children (Kohnert et al., 2005). This *language of intervention* can be either monolingual (in L1 or L2) or bilingual (using both L1 and L2). This clinical decision of selecting the a *language of intervention* is not relevant for serving monolingual children that share the dominant language and culture as clinicians but plays a critical role in intervention for bilingual speakers (Kohnert et al., 2005). Bilingual children are known to access both languages interchangeably across various social contexts thus encouraging language development through a wide array of experiences because L1 and L2 are interrelated and interdependent of each other (Cummins, 1980; Kohnert, 2007).

Preliminary evidence suggests that the *language of intervention* for bilingual children is significant in providing organized and effective services enabling developing bilingual individuals achieve multiple benefits (Gutierrez-Clellen, 1999; Kan & Kohnert, 2005; Ben-Zeev 1977; Westly, 2011; Carlson, & Meltzoff, 2008). Gutierrez-Clellen (1999) outlined various reasons describing why a bilingual *language of intervention* suits bilingual individuals best. First, it provides immediate access to comprehensible input for both languages, L1 and L2, to further develop language skills. Second, a bilingual *language of intervention* profits from the interdependent relationship that occurs between L1 and L2 through the expansion of both languages during their most critical years of language development. Third, a bilingual *language of intervention* increases the bilingual learner's confidence and motivational level to learn and expand the second language due to the comprehensible input obtained in their stronger language. Fourth, Gutierrez-Clellen (1999) clarifies that a bilingual *language intervention* approach places importance on the continued development of the child's native language, thus eliminating the negative adverse effects of an immersion "sink or swim" program resulting in the loss of their native language, also known as subtractive bilingualism. The preservation of the native language not only facilitates second language acquisition through the interdependence relationship between L1 and L2, but preserves bilingualism and its vast amount of benefits it has to offer (Gutierrez-Clellen, 1999; Kan & Kohnert, 2005; Ben-Zeev 1977;; Westly, 2011; Carlson, & Meltzoff, 2008).

1.5 Language of intervention studies

Currently, there is a shortage of evidence assessing the efficacy of bilingual *language of intervention* models or outlining the systematic delivery of a bilingual *language of intervention*. Largely, incongruent language proficiencies and dialectal differences contribute to the disproportionality of communication abilities of linguistically diverse individuals to SLPs, despite SLPs' attempt to compensate for these discrepancies through linguistic support from family members or interpreters when providing services (Kohnert, 2007). Consequently, consideration of a child's complete use of language

across all settings should be held paramount in language interventions to ensure success across all communicative environments that contribute to their continuous language development (Kohnert, 2007).

Empirical evidence supporting a bilingual language of intervention is limited; however, recent research suggests that a bilingual intervention model best suits bilingual childrens' needs (Lugo-Neris, Jackson, & Goldstein, 2010; Tsybina, & Eriks-Brophy, 2010). A study evaluating lexical and semantic gains through a bilingual dialogic reading vocabulary intervention with preschool aged children revealed that the bilingual intervention model identified the bilingual dialogic vocabulary intervention is an effective model in providing significant gains for increasing vocabulary in both languages than the controlled counterpart (Tsybina, & Eriks-Brophy, 2010). Tsybina & Eriks-Brophy reported that effect sizes were large and that children can expand their vocabulary in both languages when supported under a bilingual condition. Providing comprehensible input with linguistic support of L1 provided deeper understanding of novel concepts and semantic knowledge. A second study examining the lexical-semantic performance after two week intervention suggests that children receiving English vocabulary instruction with Spanish bridging input exhibited greater gains in identification and expressive definitions (Lugo-Neris, Jackson, & Goldstein, 2010). This evidence is consistent with Cummins' (1979) linguistic interdependence model in providing comprehensible input in L1 to foster development in the second language through the active engagement of both languages at one time. Perozzi and Sanchez (1992) conducted a study which evaluated receptive language acquisition skills (pronouns and prepositions) in bilingual children with language delay under a bilingual instruction intervention. This study revealed that children under a bilingual condition showed gains in receptive language skills for both languages at a faster rate than those in the controlled monolingual condition (Perozzi & Sanchez, 1992). Providing comprehensible input in L1 throughout instruction not only provides academic support for language development for L1 but provides an efficient platform to develop two languages within the same time frame, thus increasing support for bilingual individuals with and without language disorders

efficiently. Although these studies provide preliminary evidence that a bilingual language of intervention best suits the needs of bilingual children, there is limited evidence evaluating its efficacy when compared to monolingual language of intervention conditions that exclusively only foster L1 or L2 development.

1.6 Purpose

This study was designed to explore the effect of the language of intervention in treating vocabulary. Providing a bilingual language intervention condition may provide an efficient and effective mode of language intervention. This project will evaluate how the systematic implementation of a bilingual language of intervention for bilingual English and Spanish speaking children. The study is modified after two studies evaluating language of intervention during a vocabulary intervention session for preschool children using a dialogic literacy activity under various language of intervention conditions (Lugo-Neris, Jackson, & Goldstein, 2010, Tsybina, Eriks-Brophy, 2009). This study evaluates the impact different language of intervention conditions have on receptive-expressive lexical skills of typically developing bilingual preschool children across a Spanish monolingual, English monolingual, bilingual and controlled intervention. This study addressed the following questions:

1. Do bilingual preschool children exhibit significant gains in expressive-receptive lexical skills in L1 and L2 when an intervention is delivered under a bilingual language of intervention condition, monolingual language of intervention condition or a controlled intervention condition?
2. Is a bilingual language of intervention delivery model more effective in promoting overall lexical skills in bilingual preschool children when compared to monolingual language of intervention or a controlled intervention?

CHAPTER 2: METHODS

2.1 Research Design

A quasi-experimental pretest/posttest multiple group study was designed to explore the effects of receptive-expressive lexical skills for bilingual preschool children under varied language of intervention conditions. Investigators evaluated the gains of expressive and receptive lexical skills and effectiveness of three language of intervention conditions and a controlled condition: bilingual English/Spanish, monolingual English, monolingual Spanish, and a controlled condition. The study measured the effect different language of intervention conditions had on expressive-receptive lexical skills for both English and Spanish in preschool bilingual children after having participated in eight vocabulary intervention sessions. Data was collected via pretests and posttests. Investigators examined the effect a bilingual language of intervention condition had on expressive and receptive lexical gains when compared to interventions delivered under monolingual conditions delivered in a bilingual child's L1, L2 and a controlled condition. The controlled condition was implemented to account threats to internal validity due to maturational effects for an experimental design within subjects.

2.2 Participants

Participants were recruited from the community parent/child outreach education program AVANCE in El Paso, TX. The AVANCE program offers early childhood education, parental education training and GED courses. Twelve preschool aged participants were recruited for this study. The participants attended school an early childhood education program and two school assignments. Classroom observations revealed that the early childhood education adhered to a 50/50 English/Spanish language instruction curriculum model. Participants were recruited from two elementary school sites in a school district in the El Paso area. Prior to conducting the study, researchers conducted a parental information meeting advising parents of the study's purpose, consent forms, and participants' rights. Table 2.1 outlines participant demographics on all participants initially recruited for this study. Parents were advised they could withdraw from the study at any given time if they chose to do so. Participants were between 35-56 months old, bilingual in English and Spanish, and attended a bilingual preschool education program academically supporting English and Spanish languages. All children were Hispanic

of Mexican American heritage and most used both Spanish of the west Texas region and English throughout their daily activities. Twelve participants of various age and gender enrolled in the study; three participants withdrew from the study over the course of the intervention sessions. Posttest data was not obtained for these participants. One of the three participants that withdrew from the study was noncompliant and withdrew from the study. There was complete pre- and post-testing data for a total of nine participants, 3 participants in the English condition, 3 participants in the Spanish condition, 2 participants in the bilingual condition and 1 participant from the controlled condition.

Table 2.1 *Participant demographics*

Participants	Female	Male	Hispanic Ethnicity	Age 35-48months	49-56 months
<i>n</i> = 12	6	6	100%	10	2

2.3 Measures

Three measures were used for this study. Table 2.2 reviews these measures and are separated by group assignments designed for this *language of intervention* study. First, parental questionnaire interviews conducted by investigators obtained information on language use for both English and Spanish across hourly activities throughout a typical week and weekend. Age of exposure for each language was also obtained for each participant. Language proficiency means were determined for all participants within their respective group assignments and reported in table 2.2. The language proficiency evaluations revealed Spanish proficiency at above 70% and Spanish less than 27% in English for participants assigned bilingual, English and Spanish conditions. It should be noted that the participants enrolled in the controlled condition revealed a disparity in language proficiencies when compared to the English, Spanish and bilingual condition. Participants in the controlled condition were English dominant and proficiency levels were English 55% to Spanish 35%, therefore data obtained should be interpreted with caution due to incongruent linguistic performance from the controlled group. Second, the Bilingual Expressive One-Word Picture Vocabulary Test (EWOPVT) assessment was administered in an effort to provide a comprehensive linguistic profile for each participant for both English and Spanish, and means of participants are reported in Table 2.2. Raw scores from the

EWOPVT were reported and used as a qualitative assessment due to all participants not meeting age requirements for the use of derived score evaluation under the standardized protocol. Participants were required to complete a pretest and posttest before and after the intervention. Third, measures also revealed that the control groups mean age is between 10-12 months higher than the intervention groups at 50.25. This 10-12 month maturity may also impact results obtained at post testing and should be interpreted with caution, due to the possible advantage it may create in linguistic performance. Finally, targeted expressive and receptive lexicon was assessed before and after intervention sessions through two PowerPoint picture presentations created by project investigators. This test provided information about individual participant's current knowledge of the target expressive and receptive lexical knowledge (verbalization and comprehension of target vocabulary) in the study. The pretest required participants to complete three tasks. Participants were required name a single picture stimulus, to identify by pointing to a picture stimulus in a field of four when presented the verbal term, and provide as much semantic information as they could for each target item presented in both English and Spanish. For the purposes of this thesis, the lexical tasks were examined.

Table 2.2 Descriptive Statistics

Statistic Means							
	<i>n</i>	EOWPVT		Age of first Exposure in years		Proficiency	
		Raw Scores	Age in months	English	Spanish	English	Spanish
Bilingual group	2	21	40.67	3	0	11.80%	88.10%
Spanish group	3	16.3	40	2	0	27.70%	72.20%
English group	3	18.5	38	1.5	0	24%	75.60%
Control group	2	30.5	50.25	1	1.67	55.70%	35.80%

2.4 Equipment

Intervention sessions were conducted in a portable classroom approximately 20' wide x 30' in length. Two full-color bilingual books of equal length and complexity were used for three language of intervention groups. Two color books addressing math skills (one to one correspondence and shapes) were used for the controlled condition group. The three language of intervention groups required 90

full-color and 90 black and white printed pictures to complete the vocabulary expansion activities. Four boxes of crayons, 4 glue sticks and 4 blank booklets were used for every group. Stickers were used as behavioral reinforcements across all four conditions to maintain attention to task and immediate behavior modification if participants were noncompliant. Five electronic devices, iPads and 15.6” laptops, were used for pretest and posttest administration. Four audio recorders were used to record each intervention session. Four video cameras were used to record the intervention session to provide information on intervention fidelity measures. All protected and private information was stored in a secured lab at the University of Texas at El Paso.

2.5 Development of Targeted lexical items

Twenty concepts were chosen from two preschool books. Ten concepts were derived from book 1 and ten concepts were derived from book 2. For every concept there are the English and a Spanish term representation of the concept, totaling to two lexical terms per concept. For example, one concept such as a ball is represented by two lexical terms, the English term “ball” and the Spanish term “pelota”. Twenty concepts totaled to 40 lexical terms (20 in English and 20 in Spanish) as outlined in Table 2.3 below. The 40 lexical terms were measured at pretesting and post testing. These terms were derived from two bilingual books of equal length, color and complexity, *The Grasshopper and the Ants; El Saltamonte y las Hormigas* translated by Darice Bailer, Scholastic and *The Lion and the Mouse; El León y el Ratón* translated by Darice Bailer, Scholastic. The books used for the control group were *Ten Black dots* by Donald Crews and *The Greedy Triangle* by Donald Crews. Terms chosen were divided equally across both books; ten terms were taken from book one and ten terms from book two. Criteria for selecting the novel terms were narrative representation, perceptual saliency, and cognate assessment. For example, investigators evaluated the representation of novel terms within the narrative sequence and the concreteness of these terms where comprehension was supported with visual and narrative representation, due to the age group of enrolled participants. The terms selected after having met three criteria. They needed to be transparently depicted within the context of the story, deemed perceptually salient for children, such as nouns and action verbs, and met cognate criteria conducted through phonemic transcription and evaluation. Final selection for the target lexical terms was achieved after

meeting the criteria. The control group participated in a shared reading activity using a bilingual instruction using both English and Spanish targeting one to one correspondence math skills.

Additionally, lexical items were evaluated by syllable length. Target terms had to match its second language counterpart within 2-4 syllable length, for example león-lion and be judged as equal complexity by project investigators. Second, terms were evaluated on the easy it was to understand the term having been provided a picture or literacy expansion activity that children between the ages of 3-5 years of age could understand. Finally, to further evaluate the preliminary effects of this exploratory study for language of intervention, half of the lexical terms were cognates (10 terms) and the other half were non-cognates (10 terms). Cognates are words that share similar phonetic structures and meaning across languages. Twenty word pairs (40 lexical terms) were evaluated and scored by two bilingual graduate students. Terms were dictated and transcribed for the evaluation of cognate status. Terms were scored using an adapted version of the cross-linguistic overlap scale for phonology by coding for the number of syllables, similar or same initial consonant/sound, consonant overlaps, and vowel overlap, seen in Appendix A (Kohnert, Windsor, & Miller, 2004; Kelley & Kohnert, 2012). Words scored at 5 and above were used as identified as cognates and those below 6 were labeled non-cognates. Inter-rater reliability was achieved at 100% and cognates were chosen from the selected lexical terms. However, it should be noted that the purpose of this exploratory study was only to evaluate the expressive-receptive gains in both languages under different language of intervention conditions and not the impact cognates have on these lexical gains.

Table 2.3

<i>Target Lexicon</i>			
<i>The Lion and the Mouse</i>		<i>Grasshopper and the Ants</i>	
Bocado/snack	Cortar/cut	Libelulas/dragonflies	Nectar/nectar
Rama/branch	Jungla/jungle	Bostezar/yawn	Saltamontes/grasshopper
Arbustos/bushes	Garras/claws	Bosque/forest	Insectos/insects
Cazador/hunter		Estaciones/seasons	
Melena/mane		Grano/grain	

Capturer/capture	Jardin/garden
Rugir/roar	Nido/nest

2.6.1 Procedure- Pre-testing Phase

This language of intervention study had three phases, pre-testing, intervention and post-testing. First, all participants completed pre-testing on twenty pairs of target lexical items described above. Prior to beginning testing, participants were instructed to listen carefully and look at the entire picture before providing a response. Participants were advised to try their best and attempt to answer every question in the language being assessed. Assessments were delivered via two electronic devices; PowerPoint presentations via an iPad or 15-inch laptop screen. One PowerPoint slideshow assessed expressive lexical skills and the second assessed receptive lexical skills. The first slideshow was designed to present twenty single illustrations as the visual stimuli to evaluate expressive lexical skills for both languages. One color illustration was placed on each slide representing the target expressive term. With this test, participants were required to name the visual stimulus item and provide any information about each item with the elicitation “What is this/Que es esto?” followed by “Tell me everything you know about this/Dime todo lo que sabes de esto”. Tests were administered one language at a time. The second slideshow presentation was designed to evaluate receptive lexical skills. It consisted of twenty slides with four colored illustrations of equal size on each slide. One illustration represented the target term and three illustrations were designated as foils or distractors for the target term. Foil stimuli were chosen by meeting two criteria. One foil required moderate similarity to the target stimulus, for example a picture of a sharp tooth within a mouth was a foil for the target word “claw” which shared a semantic similarity of being sharp and qualities of cutting through objects. Two foils were chosen to have minimal similarities to the target word, such as a paw and a tail for the target word “claw”, which were parts of the animal’s body. Participants were then presented with the target lexical item and asked “Point to the *claw/Cual es garras*”. Participants followed by selecting a picture

stimulus from a choice of four picture stimulus items. Documentation was conducted immediately after the participant's selection on a spreadsheet away from the participant.

2.6.2 Intervention Phase

During the intervention phase, the thirteen participants were divided into groups of three for each language of intervention group and four for the control group. Participants were randomly assigned to a language of intervention group assignment within their school setting. Six participants at the first site were randomly assigned to one of two intervention groups at the first site (Bilingual and English only) and seven participants at the second site were randomly assigned to one of two group assignments (Spanish only or control). Group one was assigned the bilingual language of intervention group. Group two was assigned to the English only intervention group. Group three was assigned the Spanish only intervention group and group four was the control group working on math skills under a bilingual delivery of instruction. Interventions for groups one, two and three were conducted by three speech language pathology graduate student clinicians. The controlled group received math instruction from an undergraduate speech language pathology student assisting in the study.

Intervention scripts were created for all intervention groups in an effort to maintain and ensure vocabulary intervention continuity, consistency and standardization, with the exception of the language of intervention variable. Interventions included a pre-story presentation, book reading, book discussion and a vocabulary exercise. See Appendix B for the intervention task schedule. Each student conducting interventions was provided with eight detailed scripts and examples for each language and intervention session strictly outlining the tasks for each session. These scripts provided explicit directions, time allotted for each task, book reading, explicit semantic expansions appropriate for the participants, and time allowed for interaction and model/repetition tasks in each language, see Appendix C. The scripts were broken down by timed tasks, explicit prompts and expansions for both English and Spanish. Each clinician followed the script designated for their respective intervention group: English script for

English, Spanish for Spanish, bilingual for bilingual and bilingual math skills for controlled bilingual math group. Each script had the English and Spanish version of the intervention. The graduate clinicians followed the script by reading the designated language. The control group was delivered a bilingual math intervention targeting shapes and one to one correspondence tasks following a script developed to meet the criteria for time and structure as the three *language of intervention* groups. A total of eight scripts were created, one for each intervention session in an effort to ensure consistent intervention tasks for all intervention sessions and conditions. Fidelity measures were obtained to assess the standardization of the vocabulary intervention session from each intervention group using fidelity scoring sheets, see Appendix C. Fidelity measures revealed 100%, 100%, 90% and 70% accuracy in adhering to scripts for the intervention delivery for the bilingual, Spanish, English and controlled conditions respectively.

The first four intervention sessions targeted ten vocabulary terms chosen from book one, *El León y el Ratón/ The Lion and the Mouse*, as outlined in Table 2.3. All four intervention groups attended two 45-50 minute intervention sessions per week over the course of two weeks, totaling four intervention sessions for the first intervention block. The second block of four intervention sessions targeted the second group of ten vocabulary terms from the second book, *El Saltamontes y las Hormigas/ The Grasshopper and the Ants*, outlined in Table 2.3, meeting the same criteria of 45-50 minute each session, twice a week for two weeks.

The three language of intervention groups targeted 20 novel concepts (20 pairs of English and Spanish lexical terms) across two children's books outlined in Table 2.3. Each concept is introduced by the graduate clinician delivering the intervention. The only difference across the three language of intervention groups was the language used to deliver the intervention. The graduate clinician delivering the intervention under the bilingual condition was allowed to use both English and Spanish during the instruction of the target lexical terms within the intervention session, bringing the total of lexical terms

to 40 (20 concepts using the English term and Spanish term). The graduate clinician assigned to the English group was only allowed to use English during the delivery of the intervention, bringing the total English lexical terms presented to 20. The graduate clinician assigned to the Spanish group was only allowed to use Spanish during the intervention sessions, thus presenting 20 Spanish lexical terms. Upon completion of the each intervention session, clinicians were not allowed to discuss any material addressed during the intervention sessions after the session had been concluded to ensure intervention standardization.

Each intervention sessions involved various lexical tasks. Day one involved introducing the participants to the story and all novel terms within the context of the reading (ten novel concepts). Upon completing the reading activity, the clinician reviewed the content of the reading material through conducting a picture walk. Clinicians flipped through pages reviewing the main idea of the book, characters, setting and addressed responses provided by the participants. Clinicians reviewed all of the target lexical items (ten novel concepts) by presenting the photos in the book. Participants were provided explicit examples for each lexical term to aid in comprehension and probed for participant interaction. Active interaction and verbal engagement was encouraged by the clinicians to aid in creating comprehension of the reading in their respective language assignment. After reviewing the lexicon, participants were provided with blank premade vocabulary booklets. Participants were provided pictures in a field of three and were asked to choose one color photo matching the lexical term described in the reading. An incorrect foil was also provided during their discrimination and selection process. If the participants chose the incorrect foil, they were provided guidance and instruction as to the similarities and differences of the pictures that would lead them into choosing the correct picture items. Participants were asked to select and paste each picture on separate blank pages while maintaining an active discussion with clinician regarding the lexical terms. Clinicians provided vocabulary expansions discussing the function, differences and similarities of the target lexical. Upon completion of the vocabulary picture selection, vocabulary books were collected for use during the subsequent intervention sessions.

The second intervention session began with the dialogic reading activity and vocabulary expansion focusing on the first five lexical items throughout the reading activity. The reading was actively discussed with the participants focusing on semantic expansions for the first five target lexical terms. Vocabulary books were returned and participants provided instructions to discriminate from more picture provided in a field of three. Each participant was required to paste additional picture matching the features of each target term on the page assigned for each lexical term, grouping similar items together. For example for the target word “claw/garras”, participants identified different claws in a field of three, grouped the 2”x2” pictures and pasting them on a blank page designated for the target word. Investigators elicited verbal responses from all participants as clinicians expanded on each term providing semantic knowledge providing specific examples for each lexical term. Participants were also provided with the opportunity to color the black and white 2”x2” pictures. Upon completion of the vocabulary tasks, the vocabulary books were collected from the participants.

The third intervention session began with a dialogic reading and continued with expansion of the second group of five lexical terms. Participants were asked to choose like items and paste them on the pages representing the target vocabulary term while engaged in conversation and semantic features with the clinician. Participants were allowed to color as they provided additional information on each lexical item as semantic expansions were presented by the graduate clinicians. At the completion of the intervention session, vocabulary books were collected from all of the participants.

The fourth intervention session began with a dialogic reading and clinicians reviewed all of the lexical items presented over the course of the first three intervention sessions. Participants were allowed to finish coloring their vocabulary books while actively discussing the target lexical terms. Finally, participants were instructed to present their self-made books to their peers and provide a verbal explanation for each lexical item. They provided information on what they know about each picture with maximum support from the graduate clinicians targeting expressive skills in the target language. Clinicians assisted participants in their presentations in an effort to maintain comfort and continuity of participation. Upon completion of the oral presentation of the self-made vocabulary books, the participants were allowed to take their work with them to present to their parents. The second block of

four intervention sessions using the second book *The Grasshopper and the Ants; El Saltamonte y las Hormigas* and ten new lexical terms (20 lexical items for the bilingual language of intervention condition) was delivered under the same structure as the first block of four intervention sessions.

2.6.3 Post-testing

Upon completion of the eight intervention sessions, all participants were administered the same tests assessing expressive and receptive lexical knowledge. Post-testing took 15-30 minutes to administer across all participants. Two PowerPoint presentations assessed all forty target expressive and receptive lexical terms using the same protocol during pretesting. Post-testing was administered in the same manner as pre-testing and recorded on a posttest protocol.

2.7 Scoring and Analysis

Participants were scored using a binary scoring system. Identifying the spoken term for the receptive skills tasks and verbalization of the target term for the expressive skills task was given one point for a correct response and no points for an incorrect response. No points were given to the participants if the participant's verbal response was unintelligible to two clinicians after repetition. Scores for each participant and group were tallied and entered into the Statistical Package for the Social Sciences (SPSS, version 20, 2011) for statistical evaluation. The Repeated Measures ANOVA statistic was selected to evaluate what statistical significance language of intervention has on the target skills when comparing multiple groups across time. This measure was also selected to evaluate the gains with a small sample size. A partial eta squared was used to determine effect size for statistically significant values. The Repeated Measures ANOVA also provides descriptive statistics such as group means and standard deviations.

CHAPTER 3: RESULTS

3.1 Descriptive Results

Descriptive results can be found in Tables 3.1 and 3.2 below. The bilingual group increased from pretest to posttest in all four areas although to different degrees: Spanish receptive lexical skills pretest ($M=7$, $SD=0$) to posttest ($M=14.5$, $SD=3.5$), Spanish expressive pretest ($M=1$, $SD=1.4$) to posttest ($M=7$, $SD=4.24$), English receptive pretest ($M=8$, $SD=1.4$) to posttest ($M=12$, $SD=2.12$) and English expressive pretest ($M=0$, $SD=n/a$) to posttest ($M=2$, $SD=n/a$). The Spanish group experienced gains from pretest to posttest in all four areas: Spanish receptive lexical skills pretest ($M=5$, $SD= 2.0$) to posttest ($M=9$, $SD=2.6$), Spanish expressive pretest ($M=1$, $SD=1.1$) to posttest ($M=2.3$, $SD=2.5$), English receptive pretest ($M=7$, $SD= 1.7$) to posttest ($M=10$, $SD=1.7$) and English expressive pretest ($M=0.33$, $SD= 0.5$) to posttest ($M=1$, $SD= 1.732$). The English group experienced gains in English skills and a decrease in Spanish skills from pretest to posttest at: English receptive pretest ($M=7.67$, $SD= 2.5$) to posttest ($M=8.3$, $SD=2.8$), English expressive pretest ($M=0$, $SD=n/a$) to posttest ($M=1$, $SD=1.73$), Spanish receptive lexical skills pretest ($M=9$, $SD= 2$) to posttest ($M= 6$, $SD= 3.4$), and Spanish expressive pretest ($M= 1.3$, $SD= 1.1$) to posttest ($M= 1$, $SD= 0$). The control group experienced gains in Spanish receptive skills and English expressive skills, a decrease in English receptive skills and no change in Spanish expressive skills from pretest to posttest at: Spanish receptive pretest ($M=7$, $SD=n/a$) to posttest ($M=12$, $SD=n/a$), English expressive pretest ($M=3$, $SD=n/a$) to posttest ($M=6$, $SD=n/a$), English receptive pretest ($M=9$, $SD=n/a$) to posttest ($M= 8$, $SD=n/a$), and Spanish expressive pretest ($M= 0$, $SD=n/a$) to posttest ($M= 0$, $SD=n/a$).

Table 3.1 Spanish Means and Standard Deviations (SD)

	<i>Spanish Means (SD)</i>			
	Spanish Receptive		Spanish Expressive	
	Pretest	Posttest	Pretest	Posttest
Bilingual	7 (0)	14.5 (3.5)	1 (1.4)	7 (4.24)
Spanish	5 (2.0)	9 (2.6)	1 (1)	2.3 (2.5)
English	9 (2)	6 (3.4)	1.3 (1.1)	1 (0)
Control	7 (n/a)	12 (n/a)	0 (n/a)	0 (n/a)

Table 3.2 English Means and Standard Deviations (SD)

	<i>English Means</i>			
	English Receptive		English Expressive	
	Pretest	Posttest	Pretest	Posttest
Bilingual	8 (1.4)	12.5 (2.12)	0 (n/a)	2 (n/a)
Spanish	7 (1.7)	10 (1.7)	.33 (.5)	1 (1.732)
English	7.67 (2.5)	8.3 (2.8)	0 (n/a)	1 (1.73)
Control	9 (n/a)	8 (n/a)	3 (n/a)	6 (n/a)

3.2 Statistical Analysis

Repeated Measures ANOVA was performed for each of the four measures, (see Table 3.3 and 3.4 below). The between subject factor was the experimental group (bilingual, Spanish, English, and control). The within subject factor was time (pretest and posttest). The analysis of the two Spanish tasks will be presented followed by the two English tasks.

3.2.1 Spanish measures

The repeated measures ANOVA for the Spanish receptive task revealed a significant main effect for Time on pretests to posttests at $F(1, 5) = 10.924, p = .021, \eta_p^2 = 0.68$ (see Table 3.3). Overall, the groups performed higher at post testing. There was a significant interaction effect for Group by Time on pretests and posttests at $F(3,5) = 6.655, p = .034, \eta_p^2 = .800$. This interaction can be seen in Figure 3.1. The bilingual, Spanish, and control group improved from pre to post testing but the English group decreased at post testing. There was no significant effect for Group for Spanish expressive and receptive skills.

Table 3.3 Spanish Statistical Analysis

Repeated Measures ANOVA						
Spanish Receptive Skills	<i>SS</i>	<i>df</i>	<i>Mean Square</i>	<i>F</i>	<i>Sig.</i>	<i>ηp^2</i>
Time (Pretest-Posttest)	42.058	1	42.058	10.924	0.021	0.686
pre-post and group interaction	76.861	3	25.62	6.655	0.034	0.8
Group assignment	40.861	3	13.62	1.441	0.336	0.464
Spanish Expressive skills						

Time (Pretest-Posttest)	11.308	1	11.308	7.375	0.042	0.596
pre-post and group interaction	26.333	3	8.778	5.725	0.045	0.775
Group assignment	29.667	3	9.44	1.592	0.303	0.489

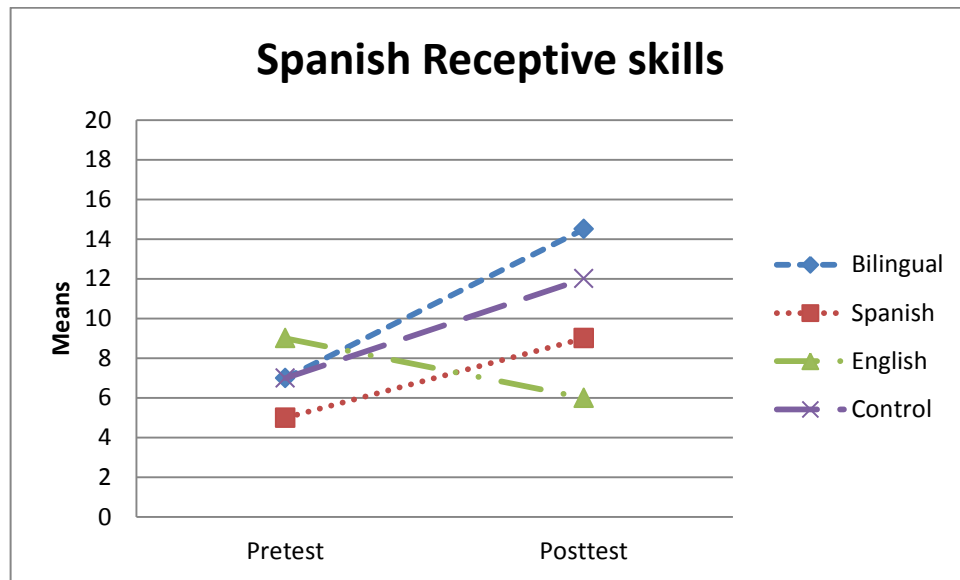


Figure 3.1 Spanish Receptive Group Means

Results for the Spanish expressive task revealed a significant main effect for Time from pretest to posttest at $F(1, 5) = 7.375$, $p = .042$, $\eta_p^2 = .596$ (See Table 3.3). Overall, all groups performed similarly at pretesting but the bilingual condition performed higher at post testing. Results revealed a significant interaction effect for Group by Time on pre-posttests at $F(3, 5) = 5.725$, $p = .045$, $\eta_p^2 = .775$; This interaction can be seen in Figure 3.2. The Spanish group demonstrated gains, the control condition presented with no change and the English group experienced a decrease at post testing. Conversely, the bilingual group achieved the greatest gains from pretest to posttest. Results indicated no significant effect for Group evaluating Spanish expressive skills.

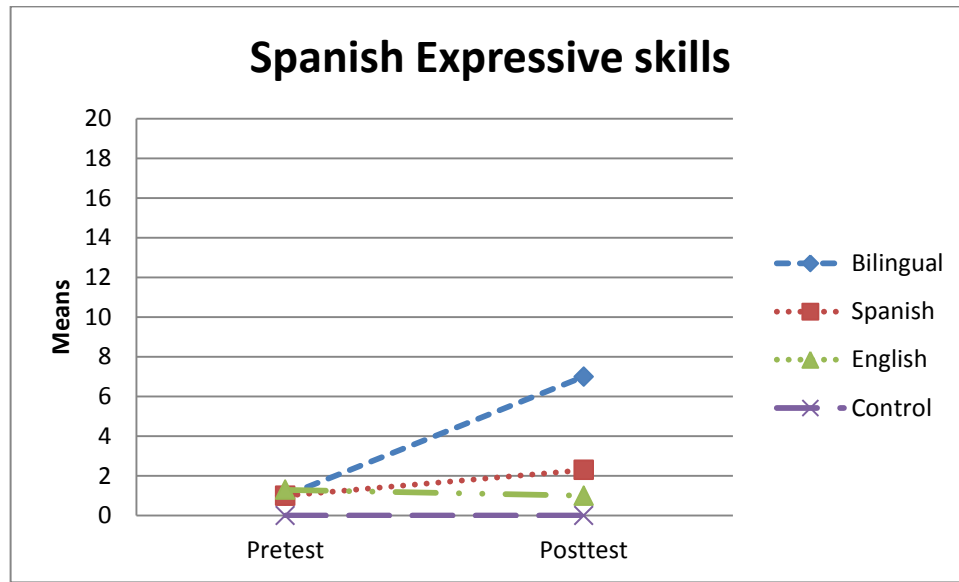


Figure 3.2 Spanish Expressive Group Means

3.2.2. English measures

The English expressive task revealed a significant effect for Time on pretests and posttests at $F(1, 5) = 11.834, p = .018, \eta_p^2 = .703$ and approached significance for Group assignment at $F(3, 5) = 5.289, p = .052, \eta_p^2 = .76$, seen in Table 3.4 below. The bilingual, Spanish and English group performed similarly at pretest and posttest. Contrarily, the control group performed higher at pretest and at posttest when compared to the language of intervention groups. Despite the increased performance of the control group, there was no significant interaction for Group by Time at $F(3, 5) = 1.026, p = .456, \eta_p^2 = .381$.

Results for the English receptive task revealed no significant effect for Time on pretest and posttests at $F(1, 5) = 2.316, p = .186, \eta_p^2 = .317$, for the Group by Time interaction at $F(3, 5) = .968, p = .477, \eta_p^2 = .367$, and for Group assignment at $F(1, 5) = 0.963, p = .478, \eta_p^2 = .366$.

Table 3.4 English Statistical Analysis

Repeated Measures ANOVA for English						
English Expressive skills	SS	df	Mean Square	F	Sig.	η_p^2
Time (Pretest-Posttest)	10.256	1	10.256	11.834	0.018	0.703
pre-post and group interaction	2.667	3	0.889	1.026	0.456	0.381

Group assignment	26.444	3	8.815	5.289	0.052	0.76
English Receptive skills						
Time (Pretest-Posttest)	11.823	1	11.853	2.316	0.189	0.317
pre-post and group interaction	14.861	3	4.954	0.986	0.477	0.367
Group assignment	12.861	3	4.287	0.963	0.478	0.366

3.2.3 Cumulative Expressive-Receptive skills

Results for overall performance in Expressive-receptive skills for both English and Spanish revealed a significant main effect for Time on pretest to posttest at $F(1, 5) = 10.516, p = .023, \eta_p^2 = 0.678$, but no significant interaction for Group by Time at $F(3, 5) = 3.681, p = 0.97, \eta_p^2 = 0.688$, or no significant effect for Group assignment at $F(1, 3) = 2.014, p = 0.231, \eta_p^2 = 0.547$, seen in Table 3.5 below. The interaction can be seen in Figure 3.5 and 3.6 below. Although group assignment did not reveal a significant effect, the bilingual group did exhibit the greatest gains with a mean increase of 5 when compared to the Spanish with a mean increase of 2.24, English mean decrease of 1.67, or controlled condition mean increase of 1.75, seen in figure 3.4 below.

Table 3.5 Cumulative Lexical Statistical Analysis

Repeated Measures ANOVA for Cumulative English and Spanish Lexical skills						
English/Spanish Lexical skills	SS	df	Mean Square	F	Sig.	η_p^2
Time (Pretest-Posttest)	272.02	1	272.02	10.51	0.023	0.678
pre-post and group interaction	285.66	3	95.22	3.68	0.097	0.688
Group assignment	232.77	3	77.593	2.014	0.231	0.547

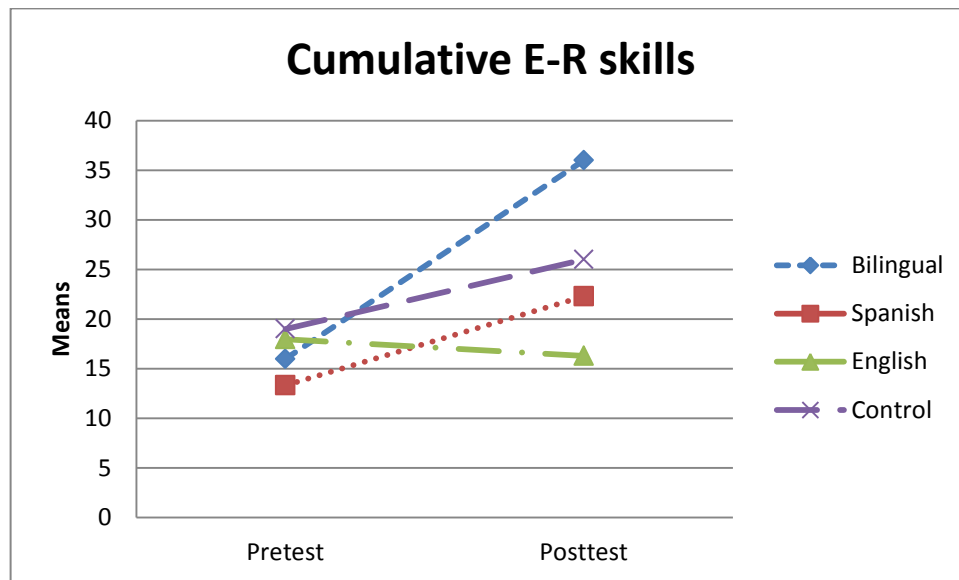


Figure 3.3 Cumulative Expressive-Receptive Group Means

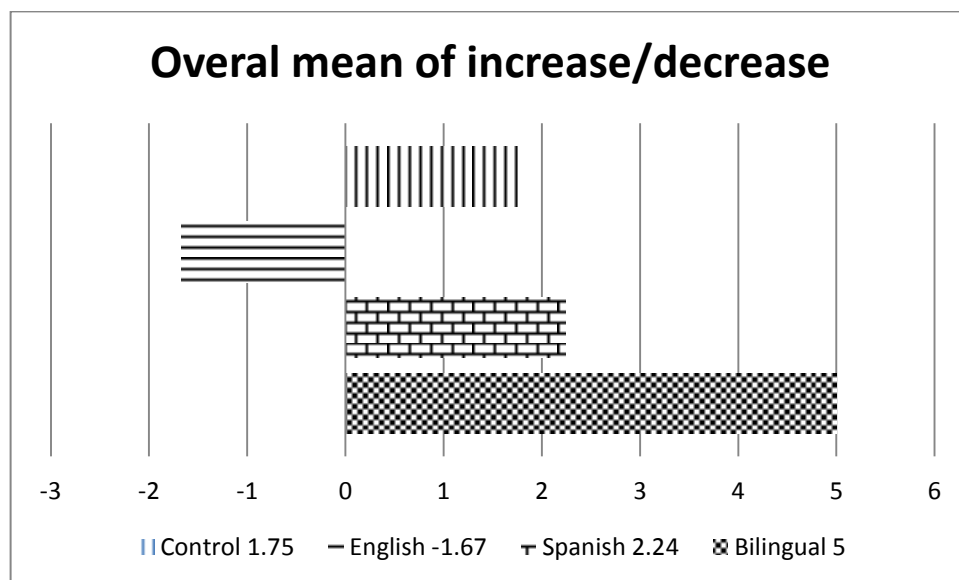


Figure 3.4 Overall means increase/decrease

CHAPTER 4: CONCLUSION AND DISCUSSION

4.1 Outcome measures

Measures evaluating language dominance, proficiency levels and age of exposure, and EWOPVT scores, seen in Tables 2.1 and 2.2, indicated high variability in linguistic performance for the control group when compared to the language of intervention groups. This high variability was previously discussed may have impacted the results obtained in this study. Linguistic performance of the participant enrolled in the control group reflected greater English expressive skills at pretesting. The participant was 10-12 months older, English dominant at 55.7% and Spanish proficiency was at 35.8%, and performed between 9-14 points higher for the EWOPVT with a raw score of 30.5. The discrepancies in language proficiency levels and increased linguistic ability, seen in tables 2.1 and 2.2, are consistent with the increased performance on pretests and posttests for English expressive lexical skills, seen in Tables 3.2 and 3.4, thus impacted the statistical measure approaching significance for time on English expressive skills.

4.2 Receptive/Expressive tasks

The present study examined the effects on expressive and receptive lexical skills in two languages for bilingual children under four conditions over a four week period of time. It was hypothesized that a bilingual language of intervention condition would provide significant gains for all expressive-receptive lexical skills assessed for Spanish and English. In an effort to answer the question we need to look at the specific gains in expressive and receptive skills for English and Spanish in each group assignment.

4.2.1 Bilingual group

Outcome measures, seen in Table 2.2 above, revealed that the bilingual intervention group demonstrated language proficiency levels with mean of 88.1% in Spanish and 11.8% in English. The bilingual group was of similar age means to the two monolingual groups at 40.67 months and their EWOPVT mean raw score performance was 21. A repeated measures ANOVA revealed significant interaction in pretest-posttesting and group in Spanish expressive skills from pretest to posttest at ($M=1$, $SD=1.4$) to ($M=7$, $SD=4.24$), seen in Table 3.2. This interaction can be seen in above in Figure 3.2. The

bilingual group achieved greater gains in Spanish expressive skills when compared to the monolingual or control groups. Although, there was a statistically significant effect from pretest to posttest in Spanish expressive skills, there was no significant effect attributed to the group assignment. This may have been due to the small sample size of the study. Overall, the bilingual group was consistent in achieving gains across all four targeted skills for both English and Spanish when compared to the monolingual and controlled conditions, seen in Figures 3.1 and 3.2.

The bilingual group obtained the greatest gains in Spanish receptive skills when compared to the gains exhibited by the Spanish and controlled groups and decrease seen by the English condition. The bilingual group experienced a similar increase for English expressive skills as the controlled, English and Spanish conditions. Lastly, the bilingual group achieved the greatest gains for English receptive skills when compared to gains seen in the Spanish and English condition and the decrease seen in the controlled condition. Overall, the bilingual group performed similarly at pretesting as the monolingual groups and may be due to closely matched language proficiency levels and. These results are consistent with Gutierrez-Clellen's (1999) suggestion that providing a bilingual language of intervention for bilingual children provides immediate access to comprehensible input in both languages to further develop language skills. This finding further supports Cummins' (1984) hypothesis that bilingual children expand lexical skills through a common underlying proficiency, and they access this conceptual knowledge through either L1 or L2 when provided intervention in L1; however for the sake of this study, intervention supported both languages yielding greater gains than the intervention condition exclusively treating in L1. Although this is a small exploratory study, these results are consistent in that providing linguistic support to both languages yield gains for language development across both languages.

4.2.2 Spanish group

Outcomes measures in Table 2.2 revealed that the Spanish intervention group demonstrated a slight increase in language proficiency means of English at 27.7% and Spanish 72.2% when compared to the bilingual intervention group. The Spanish group had the lowest performance for the EOWPVT with a raw score mean of 16.3 but were similar in age with a mean of 40 months to the bilingual group.

The Spanish group tested similarly in pretests when compared to the English and bilingual groups. Gains in Spanish receptive skills mirrored gains seen in the bilingual and Spanish group, English receptive gains mirrored gains seen by the English and bilingual group, and English expressive skill performance were similar to performance seen in the bilingual and English groups. English expressive skills were different than those seen in the control group due to incongruent language proficiency seen in the control group, as discussed earlier. Despite the lower performance on the EOWPVT, the gains paralleled gains seen in the bilingual, monolingual English and control group. There were only two groups that achieved gains across all four parameters, the bilingual and the Spanish group. Performance by the Spanish group revealed consistent gains for all Spanish expressive-receptive and English expressive-receptive lexical skills. These results are also consistent with Cummins (1978) linguistic interdependence hypothesis in that intervention or instruction provided in a child's L1 aids in comprehensible input and advance language development in L2 due to the increased linguistic support. Comprehensible input may further develop the common underlying proficiency that serves as a foundation for cognitive and linguistic development. Increasing conceptual knowledge increases cognitive abilities facilitating language acquisition by transferring conceptual knowledge and increasing conceptual knowledge that fosters transfer of linguistic ability to L2. Further analysis in the data may reveal additional information if cognates played a significant role in this transfer and the gains observed in English skills seen in the data; however, for the purposes of this study, we evaluated the overall performance across the four conditions.

4.2.3 English group

Outcomes measures seen in Table 2.2 revealed that the English intervention group demonstrated similar English and Spanish proficiency means as the Spanish intervention group at 24% English and 75.6% Spanish but an increase in English proficiency when compared to the bilingual intervention group. The English group presented with similar EWOPVT performance to the Spanish group with a mean raw score of 18.5 and similar mean age when compared to Spanish and bilingual groups at 38 months. The English group performed similarly to Spanish and bilingual groups on all four pretests; however performance to posttest revealed variability at posttests as seen in Tables 2.2, 2.3, Figures 3.1

and 3.2. The English group experienced similar gains in English receptive skills as the bilingual and Spanish intervention groups. They also paralleled gains in English receptive skills as those seen in the bilingual and Spanish group. However, the English group experienced a decrease in Spanish receptive skills when compared to the gains seen in the bilingual and Spanish group. The English group also experienced a decrease in Spanish expressive skills when the bilingual and Spanish group exhibited gains and the control group had no change. These results were variable when compared to the bilingual and Spanish group who achieved gains across all four skills and may possibly be due to having received the intervention in their second language. Gutierrez-Clellen (1999) suggests that delivering linguistic support exclusively to the second language does not add to their current linguistic system but devalues their native language (L1) creating subtractive bilingualism. The gains achieved by the English group were mild and never outperformed the Spanish language of intervention group. This indicates that the lack of comprehensible input reduces the access to a child's common underlying proficiency (CUP) that serves as a foundation for developing cognitive and linguistic skills necessary for language acquisition and development (Cummins, 1994). Delivering an intervention in L2 with no support in L1 may hinder access to conceptual knowledge and comprehension and may slow the rate of acquisition causing further delays a language development and exacerbates a linguistic weakness (Kohnert, 2007). Providing less comprehensible input requires more time to understand and expand conceptual knowledge and cognitive abilities to aid in language development and acquisition in bilingual children (Cummins, 1994).

4.2.4 Control group

The control group originally started with three participants; however one participant withdrew early from the study and the second participant became noncompliant during the latter portion of the study, yielding posttests results from only 1 participant. Measures obtained during pretesting assessment for the control group, seen in Table 2.2, revealed data for two participants but posttests included data for one participant. Despite the withdrawal of two participants, the control group demonstrated the highest variability when compared to the three languages of intervention groups. As discussed earlier, the control group had incongruent language proficiency mean levels when compared to the bilingual, English and Spanish groups revealing English dominance at 55.7% and Spanish

proficiency levels at 35.8%. The control group's performance on the EWOPVT was significantly higher than the intervention groups yielding a mean raw score of 30.5. Posttests revealed were results obtained from one participant. The control participant tested similar on pretests for Spanish expressive, Spanish receptive, and English receptive skills as the three intervention groups. The control participant did test higher for English expressive skills than the three intervention groups. Despite the increased level of English proficiency and increased vocabulary scores revealed by the EWOPVT, the control participant exhibited a similar increase and the greatest gains for English expressive skills when compared to the bilingual, English and Spanish. Contrarily, the control participant exhibited a decrease in English receptive skills from pretest to posttest where the bilingual, English and Spanish groups experienced an increase in skills. The control participant also experienced a similar increase in Spanish receptive skills as the bilingual and Spanish group and exhibited no change for Spanish expressive skills from pretest to posttest. Data obtained from the control group were aimed to eliminate the maturational effect threat to validity for this within subject group design. Performance from the control participant was highly variable where bilingual and Spanish groups exhibited consistent gains in expressive and receptive lexical skills in both languages. Despite the control participant's advantage in increased linguistic performance on the EWOPVT, being 10-12 months older than the other participants, and linguistic proficiency levels approaching equal proficiency for both English and Spanish, gains obtained due to the control group's assignment bared no statistical significance when compared to the three intervention conditions.

This study aimed to answer the following question: Do bilingual preschool children exhibit significant gains in expressive-receptive lexical skills in L1 and L2 when an intervention is delivered under a bilingual language of intervention condition, monolingual language of intervention condition or a controlled intervention condition? In this small exploratory study, the bilingual and Spanish condition presented with consistent gains in all four skills from pretest to posttest. The bilingual condition exhibited the greatest gains in Spanish expressive lexical skills when compared to the monolingual and controlled condition but there was no statistical significance attributed to the group assignment. This may have been due to the study's small sample size. Data for the English condition revealed that

bilingual children demonstrated more variable performance in both L1 and L2. The controlled condition also exhibited variable performance, with gains, decrease and no change across Spanish and English lexical skills; however, gains obtained from the controlled condition were not large enough to conclude that gains seen in the bilingual and Spanish condition were due to maturational effects.

4.3 Overall performance

The second question proposed in this study addressed overall linguistic lexical performance for bilingual children: Is a bilingual language of intervention delivery model more effective in promoting overall lexical skills in bilingual preschool children when compared to monolingual language of intervention or a controlled intervention? Repeated Measures ANOVA revealed that there was no significant effect for group assignment and may be attributed to the small sample size of the study. However, the bilingual intervention did appear to be more effective in delivering greater overall lexical gains in developing bilingual children. Data, seen in Figure 3.3 above, demonstrated cumulative pre- and post-test mean scores of expressive receptive lexical skills for both English and Spanish to illustrate the overall cumulative performance of the four groups tested. Figure 3.4 above illustrates the overall increase and decrease exhibited from each group. The bilingual language of intervention group exhibited the greatest increase of 5 for all lexical skills, the Spanish group achieved an overall increase of 2.24, and the control group achieved an increase of 1.75 due to maturational effect. The English group exhibited a decrease of 1.67.

4.4 Conclusion

Overall the bilingual group achieved the greatest gains within a 4 week intervention schedule when compared to the other conditions. These results are consistent with Cummins' (1979) linguistic interdependence model in that providing a language of intervention in L1 using the process of relating conceptual knowledge and experiences to novel lexical terms from L1 to L2 will create greater gains in both languages and reduce the probability for L1 attrition (Cummins, 1979, 1984; Kohnert, 2008; Goldstein, 2004). The Spanish intervention group exhibited gains in all areas; however, overall mean increase was less than the bilingual condition. The results in the bilingual and Spanish intervention group are consistent with the Cummins' (1979) linguistic interdependence model in that providing

comprehensible input strengthens L1 to facilitate language expansion into L2 (Cummins, 1979, 1984; Kohnert, 2008; Goldstein, 2004). However, in addition to providing support in L1, the bilingual group was providing support in L2, allowing for greater gains when compared to the Spanish condition and may be attributed to immediate comprehensible input for both languages, capitalized on the interdependence hypothesis where there was access to conceptual knowledge in both languages interchangeably and importance was placed on the child's complete linguistic profile for continued language development (Gutierrez-Clellen, 1999). Participants assigned to the English condition experienced variable performance with gains in English receptive and expressive skills and no gains in Spanish receptive and expressive skills. While this study was not designed to evaluate Cummins' theory of "subtractive bilingualism", preliminary evidence seen in this small study shows that a bilingual condition does create more of a conducive environment to facilitate language development in both languages when compared to environment exclusively supporting the second language.

4.5 Implications

Overall, this exploratory study looked at lexical gains when controlling for language of intervention and maturational effects. As we evaluated and determined that the language choice does impact skills obtained by developing bilingual children, it is important to evaluate how this is relevant to speech language pathologists treating the increasing number of bilingual children during their formative years. First, after discussing the variability seen in language performance by the participants, it is imperative to discuss that as professionals we cannot assume that all bilingual individuals will demonstrate equal linguistic proficiencies across both languages. As seen in this study, proficiency and skill level vary across individuals and age. Students participating in this study were highly variable in age, linguistic performance and language dominance. While some performed similarly, this is not always the case. As professionals, providing an in-depth dynamic assessment evaluating linguistic performance for both languages is imperative to obtain a representative sample of the student's performance. Second, as discussed earlier in this study, it is important to understand that despite the pressure obtained from school administration and mainstream culture to support the mainstream language, professionals forgo common practices for evidence based practice in an effort to provide

quality and proven methods in treating bilingual individuals in need of special services. Providing education to other professionals with empirical data becomes more powerful rather than providing anecdotal evidence in what works and what does not. Lastly and most importantly, after seeing the different performance across three language of intervention conditions, professionals must always respect and include both languages in treatment despite the mismatched language performance between the professional and student. As ethical professionals, seeking resources to provide that linguistic support in comprehensible input in the first language while facilitating language development in both languages may increase confidence and motivation levels in bilingual children if an intervention is addressed in both languages (Gutierrez-Clellen, 1992). Providing support in both L1 and L2 not only demonstrates a respect for the diverse students but places value for their personal linguistic and cultural differences (Gutierrez-Clellen, 1999).

4.6 Limitations

This small pretest-posttest control group design does present with multiple limitations. This study was unable to achieve a larger sample size to demonstrate performance for a larger group of participants. Increasing the sample size would have provided more robust data in determining the efficacy of language of intervention; however, this was an exploratory study looking at preliminary empirical data on language of intervention. A second limitation was the sample was not randomly selected due to an attempt to match linguistic proficiency profiles across within a small age group. Selecting participants through randomization process would have decreased the threats to validity by including participants of different cultures and linguistic ability. A third limitation was the age group of the participants. Results could have been more consistent if the four intervention groups were older than 36-50 months. This specific demographic exhibited lower attention span and decreased compliance, requiring frequent redirection to task and behavioral modification schedules. Two participants moved and one participant did not want to work with one of the students delivering the intervention. Selecting an older group of participants may have yielded more consistent results. Additionally, the control group being comprised of a single participant is one of the main limitations affecting this study because one participant cannot be represented for whole population of the age group targeted. Groups were intended

to match each other; however, decreased cooperation on the behalf of one participant and losing the other control participant did not allow for equal comparison across the groups.

The delivery of the bilingual language of intervention may also be viewed as a limitation. Due to the lack of research on models of delivering a bilingual language of intervention, the bilingual intervention was delivered targeting English on day one, Spanish on day two, code-switching on day three-eight to increase the immediate access of comprehensible input to the bilingual children. Conducting more research on the structure of a bilingual language of intervention model would also provide important information on what is the best way to deliver intervention using both languages. For future research, a study targeting a larger group of older bilingual children, through random selection for a longer period of time may yield more representative and robust results on the effects of a bilingual language of intervention.

REFERENCES

- Artiles, A.J., Kozelski, E.B., Trent, S.C., Osher, D., & Ortiz, A. (2010). Justifying and explaining disproportionality, 1968-2008: A critique of underlying views of culture. *Exceptional Children*, 76(3), 279-299.
- Bailer, D. (2007). *The Lion and the Mouse; El León y el Ratón*. (M. Dominguez, Trans.) New York: Scholastic.
- Bailer, D. (2007). *The Grasshopper and the Ants; El Saltamontes y las Hormigas*. (M. Dominguez, Trans.) New York: Scholastic.
- Ben-Zeev, S. (1977). The Influence of Bilingualism on Cognitive Strategy and Cognitive Development. *Child Development*, 48(3), 1009-1018.
- Burns, M. (1994). *The Greedy Triangle*. New York: Scholastic.
- Carlson, S. M., & Meltzoff, A. N. (2008). Bilingual experience and executive functioning in young children. *Developmental Science*, 11(2), 282-298.
- Crew, Donald. (1986). *Ten Black Dots*. New York, NY: Scholastic.
- Cummins, J. (1979). Linguistic interdependence and the educational development of bilingual children. *Review of Educational Research*, 49, 222-251.
- Cummins, J. (1980). Psychological assessment of immigrant children: Logic or Intuition. *Journal of Multilingual and Multicultural Development*, 1, 97-111.
- Cummins, J. (1984). Bilingualism and special education. *Issues in assessment and pedagogy*. San Diego, CA: College-Hill.
- Cummins, J. and McNeely, S. (1987) Language development, academic learning, and empowering minority students. *Bilingual Education and Bilingual Special Education: A Guide for Administrators*. Boston: College Hill.
- Cummins, J. (1991) Language Development and Academic Learning Cummins, J in Malave, L. and Duquette, G. *Language, Culture and Cognition* Clevedon: Multilingual Matters
- Cummins, J. (1994) The acquisition of English as a Second language, in Spangenberg-Urbschat, K. and Pritchard, R. (eds) *Reading Instruction for ESL Students* Delaware: International Reading Association.
- Galambos, S & Goldin-Meadow, S. (1990). The effects of learning two languages on levels of metalinguistic awareness. *Cognition*, 34(1):1-56.
- Goldstein, B. A. (2004). *Bilingual Language Development and Disorders in Spanish-English Speakers*. Baltimore, MD: Brookes Publishing Company.
- Gutierrez-Clellen, V.F. (1999). Language choice in intervention with bilingual children. *American Journal of Speech-Language Pathology*, 8, 291-302.
- Hammer, C., Detwiler, J. S., Detwiler, J., Blood, G. W., & Qualls, C. (2004). Speech-language pathologists' training and confidence in serving Spanish-English Bilingual children. *Journal Of Communication Disorders*, 37(2), 91-108.
- Kan, P. & Kohnert, K. (2005). Preschoolers learning Hmong and English: lexical-semantic skills in L1 and L2. *Journal of Speech, Language, and Hearing Research*, 48(2), 372.

- Kayser, H. (1996). Cultural linguistic variation in the United States and its implications for assessment and intervention in speech-language pathology: an epilogue. *Language, Speech, and Hearing Services in Schools*, 27 (4), 385-387.
- Khatib, M. (2011). Contributions of Vygotsky's theory to second language acquisition. *European Journal Of Scientific Research*, 58(1), 44-55.
- Kelley, A., & Kohnert, K. (2012). Is there a cognate advantage for typically developing Spanish-Speaking English-language learners?. *Language, Speech & Hearing Services In Schools*, 43(2), 191-204.
- Kohnert, K., Bates, E., Hernandez, A. (1999). Balancing Bilingual: lexical-semantic production and cognitive processing in children learning Spanish and English. *Journal of Speech, Language, and Hearing Research*, 42, 1400-1413.
- Kohnert, K., Windsor, J., & Miller, R. (2004). Crossing borders: Recognition of Spanish words by English-speaking children with and without language impairment. *Applied Psycholinguistics*, 25(4), 543-564.
- Kohnert, K., Yim, D., Nett, K., Kan, P.F., & Duran, L. (2005). Intervention with linguistically diverse preschool children. *Language, Speech, and Hearing Services in Schools*, 36, 251-261.
- Kohnert, K. (2007). *Language Disorders in Bilingual Children and Adults*. San Diego: Plural Publishing.
- Kritikos, E. (2003). Speech-language pathologists' beliefs about language assessment of bilingual/bicultural individuals. *American Journal Of Speech-Language Pathology*, 12(1), 73-91.
- Lugo-Neris, M. J., Jackson, C., & Goldstein, H. (2010). Effects of a conversation facilitating vocabulary acquisition of young English language learners. *Language, Speech & Hearing Services in Schools*, 41(3), 314-327.
- Pena, E., Bedore, L. M., & Rappazzo, C. (2003). Comparison of Spanish, English, and bilingual children's performance across semantic tasks. *Language, Speech & Hearing Services In Schools*, 34(1), 5-16.
- Stein, M.T., Glenn Flores E.A., Magana, L, Willies-Jacobo, L. (2004). Cultural and linguistic determinants in the diagnosis and management of development delay in a four year old. *Journal of Developmental and Behavioral Pediatrics*, 25 (5): S43-S48.
- Tsybina, I. & Eriks-Brophy, A. (2010). Bilingual dialogic book-reading intervention for preschoolers with slow expressive vocabulary development. *Journal of Communication Disorders*, 43, 538-556.
- U.S. Bureau of the Census (2011). *The Hispanic population: 2010*. 2010 Census Briefs. Washington, DC: U.S. Government Printing Office.
- U.S. Department of Education, National Center for Education Statistics. (2012). *The Condition of Education 2011* (NCES 2011-045), Indicator 6.
- Valdes, G., & Figueroa, R. A. (1994). *Bilingualism and testing: A special case of bias*. Norwood, NJ: Ablex.
- Westly, E. (2011). The Bilingual Advantage. *Scientific American Mind*, 22(3), 38.

Appendix A.

Feature overlap	Scoring	Examples
Initial sound (0-3 points)	3= same consonant	Léon – lion
	2= same vowel	Ambulancia – ambulance
	1= similar sound (same class sound, or one element of a consonant cluster)	Cuna – crib
	0= complete mismatch	Escuela – school
Number of syllables (0-2 points)	2= equal number of syllables	Bebe – baby
	1= different by only 1 syllable	Música – music
	0= different by more than 1 syllable	Lámpara – lamp
Consonant overlap (0-3 points)	3= >70% consonant overlap	Planta – plant
	2= 50%-70% consonant overlap	Papel – paper
	1= ≤ 50% consonant overlap	Cuna – crib
	0= no consonant overlap	Jugo/hugo – juice
Vowel overlap (0-2 points)	2 = ≥80% vowel overlap	Piano – piano
	1= 50%-80% vowel overlap	Rose – rose
	0= no vowel overlap	Fuego – fire

Kohnert, K., Miller, R. (2004). “Crossing borders: recognition of Spanish words by English-speaking children with and without language impairment. *Applied Psycholinguistics*, 25(4), p. 548.

Appendix B.

Task	Description	Time allotted	Script
Pre-story Presentation	Introductory instructions	1-2 minutes	Ex: “Good morning children. Today we will be reading an interesting story. So I would like for you to listen very carefully.”
Book reading	Dialogic book reading in language condition	5-7 minutes appx.	Read El Leon y el raton/ The lion and the mouse or Las hormigas y el saltamontes/ The ants and the grasshopper
Book discussion	Clinician discusses book and reviews target language within the context of the reading	10-12 minutes appx.	Ex: What did you think about the book? The lion roared. What do you think roar means?
Vocabulary exercise	Clinician discusses target vocabulary and introduces illustration for vocabulary for spoken word to visual stimulus association.	30 minutes appx.	Ex: “Good jobs boys and girls. Now we will be making our books of new words by looking for the picture that is the same as the words in the book.”

Appendix C.

Day 1- Book 1 Script 1

Materials:

Construction paper booklets
Ziplock bags
Glue sticks
Crayon
Magazine clippings
Magazines
Black and white clippings
Stickers
POSSIBLE - Headbands for good behavior reinforcement schedule (Sticker crowns)

Read Aloud Script and Vocabulary expansion activity: *El León y el Ratón; The Lion and the Mouse*

Introduction and general rules provided (2 minutes):

Example:

English: Good morning kids! So I am going to ask you to follow some rules. Sit very quiet during the story. Look at the pictures. Listen very carefully. Finally, if you have any questions, raise your hand AFTER I have finished reading the story. Does everyone understand?

Spanish: Buenos días niños! Pero tienen que seguir algunas reglas. Se quedan sentaditos sin hacer ruido. Pongan atención a las fotos. Escuchen la historia muy bien. Finalmente, si tienen preguntas, levanten la mano Después de que termine la historia. Todos entienden?

1. Pre-story presentation – Discuss that the story is about a lion and a mouse. Read the title of the story and show the cover page. Ask children what they think the book is about (2 minute)
English/Spanish

Example:

English: Today, we will be reading a very interesting story about a lion and a mouse and we will be learning some new words! Today will be reading the Lion and the mouse. (show cover page to everyone) What do you think the story will be about?

Spanish: Hoy, Vamos a leer una historia muy interesante de un león y un ratón. Ustedes van a aprender algunas palabras nuevas. Vamos a leer el libro el león y el ratón (demuestra portada) De que piensan que se va tratar la historia?

2. Read the entire story following the book in designated language assignment while showing the pages. Read each page; show each page to the children. Do not expand on each page for this session (7-10 minutes).
3. Book discussion. Discuss the stories setting, characters, the problem, the solution. Ask the children for their opinion of the story. (5 minutes)

Example:

English: So what did you think about the story? Where did the story take place? The jungle. What were the characters in the story? The lion and the mouse were the characters in the story. What happened in the story? First the mouse was trapped, and then the lion released him. Then the lion was trapped and the mouse saved the lion? Did it have a happy ending?

Spanish: Como les pareció el cuento. Donde ocurrió historia? En la jungla. Cuáles eran los personajes de la historia? El león y el ratón. Y cual fue el problema? El ratón fue atrapado por el león pero lo dejo ir, y luego el león fue atrapado y el ratón lo rescato. Y tuvieron un final feliz?

4. Conduct a picture walk. Have children talk about what you see on every page and provide lexical term in context (sentence). Ask for definition, have children recite term, provide definition and semantic knowledge. Provide expansion questions for all ten terms. Terms must be presented audibly a minimum of THREE times during this session. (15 minutes) Examples:

Vocabulary Item	Number of presentations

5. Vocabulary exercise: (15 minutes) Have children look for similar items matching the target vocabulary words to pictures provided and glue them to their respective pages.

Example:

English: Good job boys and girls. Now I want you to pay close attention for directions.

We are going to go back to our tables and on our tables you are going to find a book. Inside of that book, you will see a picture of the words we just learned. We are going to look for pictures that are the same as the picture on the page. For example: This page has a snack on the side. So on we are going to look in the magazines and look for all of the snacks that we can find. We will cut them out and paste them on the page. If you can't find a picture that is the same, you can draw and color it. Everybody ready, quietly lets go back to our chairs by the table and lets start our projects.

Spanish: Bien hecho niños. Ahora quiero que pongan atención. Vamos a regresar a nuestras mesas y ahí van a encontrar un libro con fotos de las palabras que acabamos de aprender. Vamos a colorear las fotos que son iguales de las fotos en el libro. También vamos a cortar y pegan las fotos que son iguales a las fotos del libro. Ahora vamos todos a regresar a las mesas.

1. Students will decorate the front of their books (name, stickers, drawings)
2. Students will color the pre-drawn black/white representations of the selected vocabulary terms.
3. Students will identify, sort, and paste pictures representative of the selected vocabulary term under the supervision and guidance of graduate students.
4. Students will complete their respective books.
5. Students will verbally present their books to a peer.
6. Student will present their books to the whole class.

Appendix D.

Fidelity Checklist:			Score
Group	Book	Session#	(1/0)
1. Introduction and general rules provided a Pre-story presentation (Read the title of the story and showed the cover page. Asked the children what they think the book is about) for Days 1 and 2 of the intervention.			
2. Read the entire story following the book in designated language assignment while showing the pages. Read and show each page to the children.			
3. Book discussion. Discussed the stories setting, characters, the problem, the solution.			
4. Conducted a picture walk, or had a vocabulary review with each Item presented 3 or more times.			
5. Expansion activity (i.e. the children create books using the vocabulary items or participated in).			
6. Behavior management was utilized.			
7. The time was within the specified limits (See Time sheets).			
8. All of the children were included in the intervention.			
9. Appropriate feedback was given.			
10. Maintained the topic throughout the intervention.			
TOTAL			

CURRICULUM VITA

Blanca Estela Parra Cisneros was born April 10th 1976 in Tacoma, WA; daughter of Blanca and Antonio Parra. Mrs. Cisneros attended Socorro high school and the University of Texas at El Paso where she received her Bachelors of Interdisciplinary Studies with a focus in Bilingual education in 2008. Mrs. Cisneros is a proud mother of two children, Jorge and Mia Estela Cisneros.

Permanent address: 205 Pasodale
El Paso, TX 79907

This thesis was typed by Blanca Estela Parra-Cisneros.