

Copyright

by

Jessica Anna Baca

2011

The Thesis committee for Jessica Anna Baca

Certifies that this is the approved version of the following thesis:

Bilingual Language Literacy Intervention: Vocabulary Naming and  
Definitions

APPROVED BY

SUPERVISING COMMITTEE:

Supervisor: \_\_\_\_\_

Elizabeth Peña

\_\_\_\_\_

Lisa M. Bedore

Bilingual Language Literacy Intervention: Vocabulary Naming and  
Definitions

by

Jessica Anna Baca, B.S.

Thesis

Presented to the Faculty of the Graduate School

of the University of Texas at Austin

in Partial Fulfillment

of the Requirements

for the Degree of

Master of Arts

The University of Texas at Austin

May 2011

## Dedication

To my parents and Santos with much love. Thank you for your support throughout my academic career.

## Acknowledgements

I would like to thank my supervisor, Dr. Elizabeth Peña, for her guidance during graduate school and in completing this project. Also, thanks to Dr. Lisa Bedore for her assistance with this report. I would also like to show appreciation to all my fellow classmates for always being understanding and helpful.

## **Abstract**

# Bilingual Language Literacy Intervention: Vocabulary Naming and Definitions

by

Jessica Anna Baca, M.A.

The University of Texas at Austin, 2011

SUPERVISOR: Elizabeth Peña

The current study investigated the effectiveness of a Literacy Based Intervention (LBI) on English Language Learners (ELLs) with Specific Language Impairment (SLI). Specifically this report focuses on the effects of LBI on vocabulary skills (e.g. naming and defining). Nineteen ELLs (ages 74 to 104 months) participated in the intervention study, which lasted eight weeks and consisted of 50-minute sessions, three times a week. The LBI focused on rich vocabulary instruction of words that were from storybook readings. Vocabulary naming and definition probes were used to assess vocabulary progress. Results revealed that vocabulary increases did not occur until the second half of the intervention (e.g. week six or seven). LBI shows promise to be successful for increasing vocabulary skills in ELLs with SLI.

## Table of Contents

List of Figures.....	ix
Introduction.....	1
Background.....	3
Vocabulary Development in Bilinguals.....	3
Vocabulary as A Measure for Future Reading Skills.....	3
Literacy Based Intervention (LBI).....	4
Rich Instruction vs. Basic Instruction.....	5
LBI and Vocabulary Gains.....	6
Purpose and Predictions.....	7
Methods.....	8
Participants.....	8
Screening Assessments.....	8
Language and Literacy Together Intervention.....	9
Intervention Procedures.....	9
Data Collection.....	11
Vocabulary Naming Probes.....	11
Vocabulary Definitions Probes.....	11
Data Analysis.....	12
Reliability.....	12
Results.....	14
English and Spanish Naming Probes.....	14
English and Spanish Definitions Probes.....	15

Naming and Definitions Progress.....	17
Discussion.....	19
Vocabulary Naming and Definition.....	19
Individual Averages vs. Group Performance.....	19
English and Spanish Performance.....	20
Task Performance Conclusions.....	21
Limitations.....	22
Clinical Impressions.....	23
Future Research.....	24
References.....	25

## List of Figures

Figure 1:	Naming – 1 <sup>st</sup> Half.....	15
Figure 2:	Naming – 2 <sup>nd</sup> Half.....	15
Figure 3:	Definitions – 1 <sup>st</sup> Half.....	16
Figure 4:	Definitions – 2 <sup>nd</sup> Half.....	17

## **Introduction**

Specific language impairment (SLI) is defined as an impairment in receptive and expressive communication modalities with no coexisting physical or cognitive disorders (Jones, Tamburelli, Watson, Gobet, & Pine, 2010). Reading and listening are the receptive modalities, while speaking and writing are the expressive modalities. Children with SLI experience difficulties in these modalities, which in turn, affects their verbal and nonverbal communication.

A growing research need focuses on intervention for bilingual children who have specific language impairment. Currently, about one and ten school aged children are English Language Learners (ELLs) in the United States (Goldenberg, 2008). More specifically, 79% of students who are ELLs are Spanish-English bilinguals. Spanish-English bilinguals have been identified to be particularly at risk for academic and reading difficulties (August & Shanahan, 2006). For this reason language assessment and intervention for Spanish-English bilinguals is a critical challenge.

Pre-literacy skills that are needed for an ELL to be successful in school are phonological awareness (e.g. letter recognition/identification, rhyming) and vocabulary development (Anthony, Solari, Williams, Schoger, Zhang, Branum-Davis, et al., 2009). Phonological awareness and vocabulary skills have been documented to lower in ELLs when tested in only one language (Bialystok, Luk, Peets, & Yang, 2009). Therefore, with ELLs with SLI it is important to develop appropriate teaching methods that increase second language skills, but at the same time consider dominant language influences. One way to do this is to provide multiple opportunities for second language in order to increase the language in the following areas: syntax, grammar, vocabulary,

pronunciation, and social norms (Goldenberg, Rueda, & August, 2008).

An increasing trend for treating ELLs with language disorders is the use of literacy-based interventions (LBIs). LBIs are known to be effective because they use language instruction combined with a narrative context (Munro, Lee, & Baker, 2008). Particularly, Munro et al.'s study demonstrated LBIs have been shown to increase language complexity, vocabulary production, and phonological awareness in preschool and early school aged children SLI.

This study will focus on an intensive 8-week LBI for children who are 74 to 104 months in age. The main purpose of this study was to determine if an intensive LBI increased syntax and vocabulary use in ELLs with SLI. This report examined the hypothesis that a LBI will result in increases in following vocabulary skills: naming and defining. This thesis discusses recent research studies focusing on vocabulary skills in ELLs, the present intervention procedures, and a discussion of the intervention results and how they relate to treatment of ELLs.

## **Background**

### **Vocabulary Development in Bilinguals**

Vocabulary develops differently in bilinguals than it does in monolinguals. Monolinguals develop vocabulary in their one language, while bilinguals develop vocabulary in two languages with various levels of overlap in L1 and L2. Some researchers have stated that bilinguals develop vocabulary slower than monolingual children (Vagh, Pan, & Mancilla-Martinez, 2009). However, these differences were found only when one language (e.g. English) was measured. When a conceptual vocabulary inventory is obtained, ELLs are shown to have vocabulary in both languages with some words overlapping and other words that are specific to one of their two languages (Uccelli & Páez, 2007). This demonstrates the importance of considering both languages during assessment and treatment of bilingual children with SLI. Uchikoshi (2006) discusses that there also appears to be a direct correlation between L1 ( and L2 receptive vocabulary skills. More specifically, Uchikoshi states that if ELLs vocabulary comprehension scores are high in Spanish (L1), they tend have more English (L2) vocabulary comprehension when they started pre-kindergarten. Further adding to the importance of the inclusion of both languages during intervention.

### **Vocabulary As A Measure For Future Reading Skills**

Vocabulary development is essential in order for a child to become a successful reader and plays a crucial role in reading comprehension (Beck & McKeown, 2007). Vocabulary abilities appear to be positively correlated with the development of reading skills (Chiappe, Chiappe, & Gottardo, 2004). Research has shown that children with language difficulties usually have behind average vocabulary due to their receptive and

expressive language deficits (Pullen, Tuckwiller, Konold, Maynard, & Coyne, 2010). This is one factor that puts ELLs with specific language impairment at-risk for reading difficulties. Given that reading success has been tied to future academic and social success (Stockard & Engelmann, 2010), ELLs are at an increased risk for experiencing these difficulties.

Vocabulary breadth and depth are two areas of growth as children acquire vocabulary. Breadth refers to how many words the child knows (van Kleeck, 2008). Depth is defined as how well the child knows or can define words. It is important for a vocabulary intervention to target both breadth and depth in order to adequately increase vocabulary skills. Oullette's (2006) study results showed that vocabulary breadth is positively correlated to reading decoding skills, while vocabulary depth predicts future reading comprehension abilities. Similarly, Yesil-Dagli (2010) investigated overall vocabulary size as a predictor for future reading success in ELLs by administering the *Peabody Picture Vocabulary Test III* (Dunn & Dunn, 1997) along with a variety of other literacy assessments to Spanish-English bilinguals in the first grade. Results showed that vocabulary size was the second best predictor, after letter naming fluency, for predicting reading success in ELLs. Based on this research, an intervention should focus not only on increasing overall vocabulary size, but also the extent to which the child understands the words.

### **Language Based Interventions**

An LBI is an intervention consists of treatment sessions that involve activities that revolve around a storybook, which are used to provide multiple opportunities to improve language skills through a coherent topic (Bradshaw, Hoffman, & Norris, 1998).

Furthermore, the session includes a pre-reading activity, the story reading, and a post-reading activity (Hoggan & Strong, 1994). An LBI can be used to focus on language and speech goals. Specific language areas, such as vocabulary, syntax, or meaning can be targeted as well (Crowe, Norris, & Hoffman, 2000). LBIs also promote the improvement of necessary skills needed for reading such as: phonemic awareness, letter identification, and phonological awareness skills (Cirino, Vaughn, Linan-Thompson, Cardenas-Hagan, Fletcher, & Francis, 2009). Research also demonstrates that shared storybook reading has been known to promote vocabulary development in children (Coyne, McCoach, & Kapp, 2007).

### **Rich Instruction vs. Basic Instruction**

There are two methods of instruction when teaching vocabulary within an LBI: basic instruction and rich instruction. Basic instruction consists of the interventionist providing students with vocabulary definitions as they appear in the story, while rich instruction involves teaching of the words before, during, and after the story is read (Maynard, Pullen, & Coyne, 2010). Maynard et al. investigated the effectiveness of rich instruction and basic instruction when administering an LBI to first grade children. They studied the carry-over of explicit instruction by measuring the number of untaught words children who had received some form of LBI (e.g. rich or basic) and those who had received incidental instruction (e.g. words were not explicitly taught). Results showed that both basic and rich instructions are more effective than incidental instruction. Furthermore, the multiple learning opportunities provided by rich instruction is more effective than the basic instruction method.

Maynard et al. (2010) further discusses vocabulary instruction methods within an LBI by outlining effective techniques than should be used when teaching vocabulary.

These methods include:

1. Use of clear teaching of word meanings (Coyne, McCoach, & Kapp, 2007)
2. Effectiveness of rich vocabulary instruction (Coyne et al., 2007)
3. Use of direct vocabulary instruction (Beck & McKeown, 2007)
4. Use of repeated oral readings and vocabulary explanations (Biemiller & Boote, 2006)

### **Language Based Interventions and Vocabulary Gains**

Shared storybook reading increases vocabulary skills by providing a naturalistic context to expose children to new words (Coyne, Simmons, Kame'enui, Stoolmiller, 2004). This type of reading also allows multiple opportunities to use and explain the meanings of new vocabulary. Lugo-Neris, Jackson, and Goldstein (2010) evaluated the effectiveness of a storybook intervention on vocabulary growth in children with SLI. Results showed that children who received an LBI made significant gains in receptive and expressive vocabulary growth. Thus these results demonstrate that LBIs are an effective method of treating ELLs with SLI. Coyne et al. (2004) study results also demonstrated approximately equal gains were made between children who had larger and smaller vocabulary knowledge pre-intervention. Further indicating that shared storybook reading is an effective method for increasing vocabulary knowledge in children with SLI.

## **Purpose & Predictions**

The purpose of this study was to examine the effectiveness of an intensive LBI on overall vocabulary knowledge in Spanish-English bilinguals with specific language impairment in the first grade. More specifically, increases in vocabulary breadth (how many words are known) and depth (how well they can define them) were studied. The LBI included rich vocabulary instruction in order to promote increases in vocabulary and generalization of teaching. Examining participant performance on untaught word probes was used to look at carry over of vocabulary increases. The prediction of this study was that ELLs with SLI who received an intensive LBI would demonstrate vocabulary growths in the areas of breadth and depth.

## Methods

### Participants

Nineteen Spanish-English bilingual participants participated in an intervention study that focused on increasing language and literacy skills in ELLs with SLI. Participants were selected from elementary schools in Georgetown, Texas and Del Valle, Texas. Children were in the first grade and ranged from 74 to 104 months of age. The mean age of the participants was approximately 82 months. There were four English and 15 Spanish participants in total. All participants were identified by oral language screening and literacy assessments as having a risk for language impairment or reading difficulties. Participants had normal hearing and vision according to a recent screening completed by the school. If a recent school hearing screening record was not available, a member of the screening team performed a hearing screening with an audiometer.

### Screening Assessments

Graduate students from the University of Texas administered pre-intervention assessments. A Speech Language Pathologist certified by the American Speech and Hearing Association (ASHA) supervised all assessment sessions that were lead by University of Texas at Austin graduate students. The *Bilingual English-Spanish Oral Screener* (BESOS) (Peña, Bedore, Gutiérrez-Clellen, Iglesias, & Goldstein, in development) and the *Woodcock-Muñoz Language Survey Revised in English and Spanish* (Woodcock, Muñoz-Sandoval, Rued, & Alvarado, 2005a, 2005b) was used to screen language skills in order to determine participant eligibility.

The BESOS is an assessment developed with items from the Bilingual English-Spanish Assessment (BESA) that assesses morphosyntactic and semantic domains of

language (Peña, Gutierrez-Clellen, Iglesias, Goldstein, & Bedore, in development). The Letter Word Identification subtest of the Woodcock-Muñoz was the subtest utilized for the literacy screening. Children who scored at or below the 30<sup>th</sup> percentile in both languages on either the BESOS or the Woodcock-Muñoz in English or Spanish qualified for participation in the intervention.

### **Language and Literacy Together Intervention**

Nineteen children received treatment with the Language and Literacy Together (LLT). The LLT intervention is based on a Proactive-learning curriculum tailored to first-grade English Language Learners that was developed by *SRA's Early Interventions in Reading* and designed by Mathes, Torgesen, Menchetti, Wahl, & Grek (2004). Proactive-learning was a reading intervention program developed to focus on reading difficulties in monolingual English-speaking students. To focus more on the needs of bilingual children with SLI, a modified version of the LLT intervention was developed and implemented.

#### *Intervention Procedures*

The modified LLT involved curriculum implemented with reading instruction provided each session. English-Spanish bilingual interventionists who had a minimum of a master's degree in communication sciences and disorders administered the LLT intervention.

The intervention consisted of groups of one to five participants who attended 50-minute sessions, three-times a week for a total of eight-weeks. Sessions consisted of forty-five minutes of therapy, while the remaining five minutes involved administering probes for syntax and vocabulary progress. Within the intervention, the initial thirty-five

minutes of the session consisted of oral language and vocabulary supplement, and the remaining 10 minutes for reading lesson delivery. A total of 12 themes, two books per theme, were presented to participants during the intervention. Six-to-eight vocabulary targets (e.g. taught words) were targeted in the first 10 minutes of each session. Participants were taught a total of 12 new words during each book lesson which were presented over two-to-three sessions.

Sessions involved six-to-10 activities, which included word games to increase skills in the following areas: phonemic awareness, letter-sound correspondence, letter writing, reading and writing words in sentences, learning sounds to new letters, and listening comprehension. Interventionists provided feedback to appropriate and inappropriate responses in order to promote generalization of new material using mediated learning experience techniques (Bedore & Peña, 2010). Below are the six steps that were used to administer the intervention:

- (1) Previewed the story and introduced new vocabulary words for the book (Bedore & Peña, 2010)
- (2) Read a passage from a narrative or informational text out loud, focusing on literal and inferential comprehension,
- (3) Reread the passage, drawing attention to target vocabulary words and the sentence contexts in which these occur,
- (4) Extended comprehension by focusing on deep processing of vocabulary words,
- (5) Extended grammatical production and comprehension through discussion of texts and production of narratives,

(6) Summarized what was read and any content knowledge that was learned.

### **Data Collection**

Increases in vocabulary were assessed once a week during the last five minutes of the intervention session. During vocabulary probes the participants were presented with Tier one or Tier two taught and untaught words. Two tasks, naming and definitions, were developed to probe vocabulary and measure increases in vocabulary breadth and depth.

#### *Vocabulary Naming Probes*

The naming task consisted of a series of pictures that were presented to the participants and represented untaught or taught words. Probes were administered once a week during the last 10-minute of the intervention session. The following week, the group was given the same probe set to determine if they did better on the second administration. Approximately 20 untaught and taught words were presented to the group each probe administration. A total of 144 of words were administered two times to each group across the eight-week intervention. Probes were scored on a point scale of 0 and 1. Participants were required to say the target word to receive full credit. However, verb variations (i.e. “lamiendo” for “lamer”/”licking for ‘lick’) were considered correct. An average was calculated from the number of correctly named pictures out of total amount of probes administered in each probe administration. An overall average was also calculated for both English and Spanish.

#### *Vocabulary Definitions Probes*

Twelve untaught and 12 taught words were presented once a week to each group. Unlike the naming task, probe words were only presented once to each group across the

intervention span. A total of 143 words were presented to each group during the entire intervention. The definition task procedure consisted of the clinician giving the participants a prompt such as “Tell me what you know about \_\_\_\_\_.” Participants were re-prompted if they gave an incorrect response. Correct responses given after re-prompts were given full credit. Responses were scored on a point scale of one-to-three depending on the detail of the participant’s response. Below is a description of point scale:

- 1: Presented one descriptive unit of information
- 2: Presented two descriptive units of information
- 3: Presented three or more units of descriptive information

#### *Data Analysis*

Vocabulary progress in the areas of naming and definitions were measured across nine time intervals. Time intervals represented the number of probe administrations presented to the groups. Nine probe administrations were given across the eight-week intervention. Averages were obtained for each participant, as well as an overall average for the first half (i.e., time one to five) and second half (i.e., time six to nine) of the intervention in Spanish and English. Vocabulary and definition averages were used to measure the overall accuracy out of the total number of probes administered in each time interval. Averages for each probe were charted using line graphs to determine where increases and decreases occurred. Trend lines were added to charts in excel to determine whether probe progress was flat or sloped (e.g. positively or negatively).

#### **Reliability**

Inter-rater reliability was obtained to determine the correlation between scoring of naming and definitions tasks. A fellow graduate student was selected to randomly score

participants in naming and definitions tasks in Spanish and English. They randomly selected a total of four participants, two in Spanish and two in English. For the naming tasks, inter-rater reliability came out to 1.00, whereas the definitions task was .86. Overall inter-rater reliability across both tasks was .95. These scores indicated that reliability was high and scoring was typically consistent between two separate scorers on randomly selected participants.

## Results

Individual averages were obtained for naming and definitions tasks in English and Spanish. Figures one and two demonstrate vocabulary-naming progress during the first half and second half of the intervention for both English and Spanish. Figures three and four demonstrate English and Spanish participants' progress on the definitions task in the first half and second half of the intervention. Trend lines were added in tables one through four for English and Spanish independently.

### English and Spanish Naming Probes

Figure one shows that during the first half of the intervention, English participants had a relatively flat trend line with slight average decreases (.511 to .497) on naming probes. But, participant gains (.183 to .548) on naming are demonstrated on figure two with an increasing slope trend line in the second half of the intervention. Overall, English participant gains in the area of naming were not observed until time seven. While, English participants scored their highest average in time two (2.00), their overall progress appeared to be minimally decreasing during the first half of intervention. A steady increase in defining skills appeared to be happening in the second half, even though the highest average achieved was 1.93.

English Naming task averages on table one demonstrates that participants' averages (.466 to .359) caused a slightly decreasing flat trend line for Spanish participants on the first half of the intervention. However, during the second half, participants exhibited a slightly increasing sloping trend line, indicating that averages (.315 to .355) began to increase or stabilize. Similar to English participants, gains were not exhibited until time seven of the intervention.

Figure 1. Naming Task – 1<sup>st</sup> Half

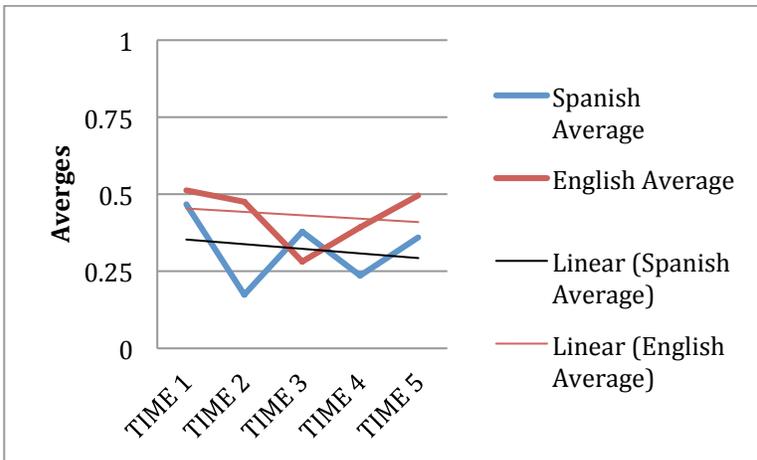
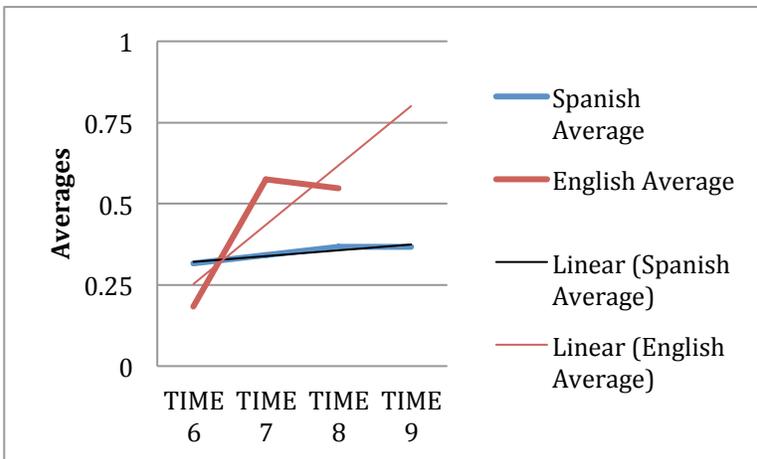


Figure 2. Naming – 2<sup>nd</sup> Half



### English and Spanish Definitions Probes

Definitions task performance for the first half of the intervention is demonstrated in figure three. English participants exhibited a flat trend line that slightly decreases, demonstrating decreases (.583 to .250) in definitions task averages for the first half. During the second half of the intervention, participants demonstrate an increasing slope trend line on figure four. This indicates that English participants demonstrated noticeable

gains (.562 to 1.937). Similar to the naming task, Spanish and English participant gains began to occur in time seven.

Spanish participants show a minimally decreasing flat trend line, indicating slight decreases in definitions averages (.512 to .4) during the first half. During the second half, participants demonstrated slight increasing averages (.267 to .545), which form a slightly increasing flat trend line. Similar to English participants, Spanish participants also demonstrated their highest average in time one, but overall progress was slightly decreasing in the first half, whereas progress began to increase in the second half. Furthermore, gains in the overall average of Spanish definitions occurred in time seven

Figure 3. Definitions Task – 1<sup>st</sup> Half

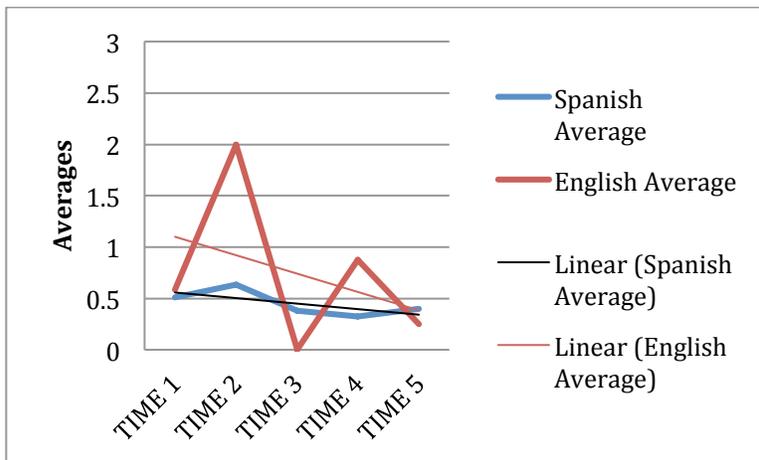
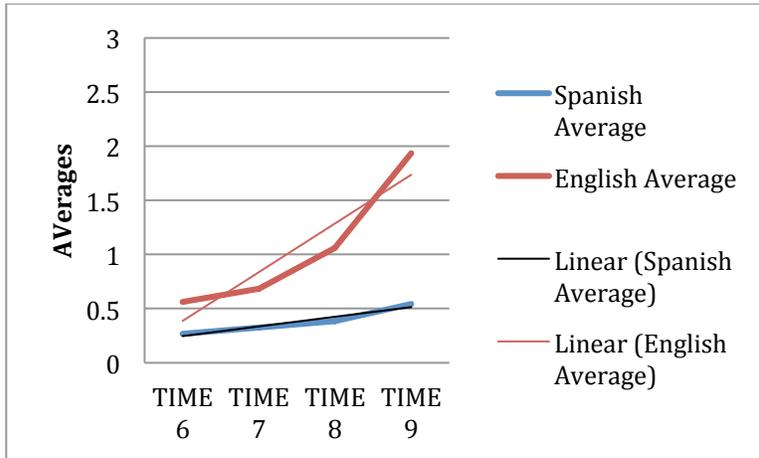


Figure 4. Definitions Task – 2<sup>nd</sup> Half



### Naming and Definitions Progress

Overall, when looking at time one through time nine, Spanish and English participants stabilized in the areas of breadth and depth during the second half of the intervention. Stabilization is demonstrated by the steady increases exhibited in the second half by both languages. However, these increases did not surpass the highest average achieved in the first half of intervention.

English participants demonstrated a steadily increasing trend lines in the naming and description of words, while Spanish participants demonstrated gradual minimal gains. This indicates that Spanish participants had more difficulty with naming and defining skills and were increasing slower than English participants. Both language groups appeared to show more mastery of naming skills, than they did in defining. Furthermore, in both tasks, Spanish and English did not begin showing gradual increases until the second half of the intervention.

When comparing overall language averages to individual averages on naming and definitions tasks, Spanish averages were closer than English averages to the overall language average on definitions and naming task. These results suggest that the overall

Spanish and naming definitions average was representative of the group performance. English averages remained scattered across the four participants on both tasks with all participants scoring in either the low (0 to .3), mid (.4 to .6), or high (.7 to 1) range. Furthermore, since there were only four English participants, one high or low score either greatly increased or decreased the overall language average.

## **Discussion**

The purpose of this thesis was to determine whether a bilingual LBI for ELLs with SLI would increase vocabulary in the areas of naming and defining. It was hypothesized, that rich vocabulary instruction would lead to increases in vocabulary naming and definition skills.

### **Naming and Definitions**

In both English and Spanish, a relatively flat decreasing trend line was observed for naming and definitions task averages in the first half of the intervention. This indicated that no naming gains were obtained between time one and time six. In the second half of the intervention, increases were observed in naming and definitions for both languages. Specifically, gains were first noted on both probe tasks during time seven. This result could indicate that participants were “learning” during the first half during the intervention and then began to apply their learning in the second half. According to figures one through four, Spanish and English learning was flat with gradual increases on definitions and naming skills with each passing week after week seven. Furthermore, it would explain why only slight increases were typically seen on tasks. Based on this information, it is assumed that more significant increases might have been seen if the intervention would have extended over a longer period of time.

### *Individual Averages vs. Group Performance*

Review of the individual averages in comparison to overall averages indicated differences between Spanish and English participants. Spanish participants typically demonstrated naming and definitions averages similar to the overall Spanish group average. This indicated that the Spanish group average was an accurate representation of

individual Spanish participants. English participants demonstrated variable naming and definitions averages, with some scoring in the low (i.e. 0-3), middle (i.e. 4-6), and high range (i.e. 7-1.00). However, varied individual averages had a greater influence on the overall average. For example, four English participants in time seven definitions with individual averages of .2, .7, .5, and .8 obtained an overall average of .55 indicating that the one participant who scored in the low range decreased the overall average. This negatively affects the ability to assume that English group average was representative of individual performance.

#### *English and Spanish Performance*

Overall, in both vocabulary tasks, English participants demonstrated more gains than Spanish participants. This could be due to a number of factors such as, task comprehension, sample size, or the nature of the task. When looking strictly at overall language group averages, English participants appear to demonstrate more comprehension of the task. However, only four English participants, compared to 15 Spanish participants, were obtained for this study. In many instances, especially for the definitions task, if one participant received a score of three, it significantly increased the overall average of English participants in that probe administration. In addition, English intervention group sizes ranged from one-to-two participants, compared to about four-to-five participants in Spanish groups. Individual and two participant groups allow for more focus on the children in the group, allowing the English participants more opportunities to participate in vocabulary activities.

### *Task Performance Conclusions*

When informally reviewing taught vs. untaught vocabulary progress. Both languages appeared to demonstrate higher scores on taught vocabulary. This is consistent with previous research studies that used taught and untaught vocabulary in their intervention studies (Coyne et al., 2004; Coyne et al., 2007; Maynard et al., 2010). However, even though more progress appeared to occur on taught words, it is important to include untaught words in probes (Beck & McKeown, 2007). Beck and McKeown (2007) believed that the word itself was not the biggest factor when teaching; instead the kind of word (i.e. nouns) is what is important. In other words, for more progress to occur on the untaught words, participants must have had sufficient teaching with a word type (or class) similar to the untaught word. That may be what is being observed here in the taught vs. the untaught words. Children seem to demonstrate learning via the taught words but perhaps needed more time and examples for learning to transfer to untaught words.

Increases in Spanish and English participants' vocabulary skills also demonstrate that rich vocabulary instruction is an effective method for teaching vocabulary. This is consistent with the findings from Maynard et al.'s (2010) study. However, the minimal growth in Spanish participants could be explained by Beck and McKeown's (2007) study, which found the use of rich instruction lead to limited gains in vocabulary. They stated that even though participants received multiple exposures to the target vocabulary; more instruction was still needed in order to result in significant gains. The need for more rich instruction may be attributed to pre-intervention language skills. Lugo Neris et al.'s (2010) study found that children with stronger pre-intervention language skills

demonstrated significantly more gains than children with the weaker language skills. Based on this information, the Spanish group may have had more participants with lower language skills before the intervention. Future studies on this intervention should examine the correlation between English and Spanish groups intervention and their pre-intervention assessment scores.

The present results demonstrate that vocabulary learning is complex process. Vocabulary learning is dependent on many factors such as, frequency of the word in a story, explicitness of the word explanation by the interventionist, and the nature of the materials such as storybooks (Beck & McKewon, 2007). Maynard et al.'s (2010) study states that training teachers in how to teach vocabulary in the classroom is an effective strategy that can promote vocabulary growth. Perhaps the usage of vocabulary teaching in the classroom by teachers during the intervention process could lead to more significant gains.

### **Limitations**

The current study presented limitations that should be addressed in future studies. First, the overall sample size was too small to be able to determine the complete effectiveness of LBI on bilingual children's vocabulary progress (Cohen, 1988). Small sample size has been a limitation in previous research studies (Lugo-Neris et al., 2010). A larger sample size would allow for more accurate estimations of naming and definitions abilities.

The study also lacked balance in the number of children receiving intervention in English vs. Spanish, that made it difficult to adequately examine the similarities and differences between their averages in vocabulary tasks. A limited number of English

participants could have been the reason that Spanish groups appeared to have less vocabulary increases than English groups. When reviewing previous studies (Coyne et al., 2004; Coyne et al., 2007; Lugo-Neris et al., 2010) on LBIs, it was noticed that few studies examined the effects of LBIs on ELLs while performing separate English and Spanish interventions. This made it difficult to determine whether an uneven number of participants in the Spanish and English interventions affected the ability to adequately compare Spanish and English progress.

Statistical analyses were not used for the purpose of this report. Statistical analyses are effective tools in determining effect sizes, reliability, and whether increases were significant or not. Furthermore, without the use of statistical analyses it was difficult whether this intervention was significantly effective on ELLs. In future studies, statistical analyses should be used to determine overall effectiveness of the LBIs for ELLs' vocabulary skills.

### **Clinical Impressions**

Based on the current study's results, LBI appears to be a promising prospect for treating ELLs with SLI. These findings show that an LBI increases vocabulary naming and definitions by around the sixth or seventh week of treatment. Clinicians should keep in mind that this might be because at the beginning of the intervention, children are still "learning." Once the children learned the session routine, they began to demonstrate a steady increase in vocabulary.

An LBI would be appropriate for school-based and private clinic speech language pathologist (SLP), because it provides a context for all therapy activities. One consideration that SLPs need to observe is that an LBI that includes a pre-activity, story

reading, and post-activity requires about 50 minutes to one hour. This length of time may be a challenge because many school-based SLPs typically see groups for about 30 minutes. Therefore, in these situations the SLP may have to think of ways that integrate teaching, reading, and applying of learning into one or two activities.

The frequency of therapy (e.g. three days a week) is another characteristic of the presented LBI that would be difficult to apply to in a school setting. Mainly due to time constraints and SLP availability. Again, school-based SLPs may need to find ways to alter this intervention in order to accommodate the amount of time and frequency of therapy they have available.

### **Future Research**

Based on the limitations and clinical impressions previously presented, future studies on LBI would benefit from a larger sample size, an even distribution of English and Spanish participants, and consistent group sizes (e.g. 4-5) of participants. In addition, the use of statistical analyses would increase the ability to determine overall effectiveness of LBIs. It would also be useful to consider LBIs that were based on a less intensive and shorter session length to determine therapeutic effectiveness with these characteristics.

## References

- Anthony, J., Solari, E., Williams, J., Schoger, K., & Zhang, Z. (2009). Development of bilingual phonological awareness in Spanish-speaking English language learners: The roles of vocabulary, letter knowledge, and prior phonological awareness. *Scientific Studies of Reading, 13*(6), 535-564.
- August, D., & Shanahan, T. (Eds.). (2006). *Developing literacy in second-language learners: Report of the National Literacy Panel on Language-Minority Children and Youth*. Mahwah, NJ: Lawrence Erlbaum.
- Bialystok, E., Luk, G., Peets, K. F., & Yang, S. (2009). Receptive vocabulary differences in monolingual and bilingual children. *Bilingualism: Language and Cognition, 13*(4), 525-531
- Beck, I. & McKeown, M. (2007). Increasing young low-income children's oral vocabulary repertoires through rich and focused instruction. *The Elementary School Journal, 107*(3), 251-271.
- Bedore, L., Peña, E., & Vaughn, Sharon (2010). Language and Literacy Intervention for Spanish-English Bilingual Children with SLI. Unpublished Grant. University of Texas at Austin.
- Biemiller, A., & Boote, C. (2006). An effective method for building meaning vocabulary in primary grades. *Journal of Educational Psychology, 98*(1), 44-62.
- Bradshaw, M., Hoffman, P., & Norris, J. (1998). Efficacy of expansions and cloze procedures in the development of interpretations by preschool children exhibiting delayed language development. *Language, Speech, and Hearing Services in Schools, 29*, 85-95.

- Chiappe, P., Chiappe, D., & Gottardo, A. (2004). Vocabulary, context, and speech perception among good and poor readers. *Educational Psychology, 24*(6), 825-843.
- Cirno, P., Vaughn, S., Linan-Thompson, S., Cardenas-Hagan, E., Fletcher, J., & Francis, D. (2009). One-year follow-up outcomes of Spanish and English interventions for English language learners at risk for reading problems. *American Educational Research Journal, 46*(3), 744-781.
- Coyne, M., McCoach, B., & Kapp, S. (2007). Vocabulary intervention for kindergarten students: Comparing extended instruction and embedded instruction and incidental exposure. *Learning Disability Quarterly, 30*, 74-88.
- Coyne, M. D., Simmons, D. C., Kame'enui, E. J., & Stoolmiller, M. (2004). Teaching vocabulary during shared storybook readings: An examination of differential effects. *Exceptionality, 12*, 145–162.
- Dunn, L. M., & Dunn, L. M. (1997). *Peabody Picture Vocabulary Test-Third Edition*. Circle Pines, MN: American Guidance Service.
- Goldenberg, C. (2008). Teaching English language learners: What the research does and does not—say. *American Educator, 32*(2), 8-44.
- Goldenberg, C., Rueda, R., & August, D. (2008). Sociocultural contexts and literacy development. In D. August & T. Shanahan (Eds.), *Developing Reading and Writing in Second-Language Learners* (pp. 95-130). New York: Routledge.
- Hoggan, K., & Strong, C. (1994). The magic of “once upon a time”: Narrative technique strategies. *Language, Speech, and Hearing Services in Schools, 25*, 76-89.
- Jones, G., Tamburelli, M., Watson, S., Gobet, F., & Pine, J. (2010). Lexicality and

frequency in specific language impairment: Accuracy and error data and from two nonword repetition tests. *Journal of Speech, Language, and Hearing Research*, 53, 1642-1655.

Lugo-Neris, M., Jackson, C., Goldstein, H. (2010). Facilitating vocabulary acquisition in young English language learners. *Language, Speech, and Hearing Services in Schools*, 41, 314-327.

Mathes, P. G., Torgesen, J. K., Menchetti, J. C., Wahl, M., & Grek, M. K. (2004). *Proactive Early Intervention in Reading*. Columbus, Ohio: SRA/McGraw-Hill.

Maynard, K., Pullen, P., & Coyne, M. (2010). Teaching vocabulary to first-grade students through repeated shared storybook reading: A comparison of rich and basic instruction to incidental exposure. *Literacy Research and Instruction*, 49, 209-242.

Munro, N., Lee, K., & Baker, E. (2008). Building vocabulary knowledge and phonological awareness skills in children with specific language impairment through hybrid language intervention: A feasibility study. *International Journal of Language & Communication Disorders*, 43(6), 662-682.

Oullette, G. (2006). What's meaning got to do with it? The role of vocabulary in word reading and reading comprehension. *Journal of Educational Psychology*, 98(3), 554-566.

Peña, E. D., Bedore, L. M., Gutiérrez-Clellen, V. F., Iglesias, A., & Goldstein, B. (in development). *Bilingual English Spanish Oral Screener*. San Antonio, TX: Pearson.

Peña, E. D., Gutierrez-Clellen, V., Iglesias, A., Goldstein, B., & Bedore, L. M. (in

- development). *Bilingual English Spanish Assessment (BESA)*.
- Pullen, P., Tuckwiller, E., Konold, T., Maynard, K., & Coyne, M. (2010). A tiered intervention model for early vocabulary instruction: The effects of tiered instruction for young students at risk for reading disability. *Learning Disabilities Research & Practice, 25*(3), 110-123.
- Stockard, J. & Engelmann, K. (2010). The development of early academic success: The impact of direct instruction's reading mastery. *JBAIC, 1*(1), 1-23.
- Uccelli, P. & Paez, M. (2007). Narrative and vocabulary development of bilingual children from kindergarten to first grade: Developmental changes and associations among English and Spanish skills. *Language, Speech, and Hearing Services in Schools, 38*, 225-236.
- Uchikoshi, Y. (2006). English vocabulary development in bilingual kindergarteners: What are the best predictors. *Bilingualism: Language and Cognition, 9* (1), 33-49.
- Vagh, S., Pan, B., & Mancilla-Martinez, J. (2009). Measuring growth in bilingual and monolingual children's English productive vocabulary development: The utility of combining and teacher report. *Child Development, 80*(5), 1545-1563.
- Van Kleeck, A. (2008). Providing preschool foundation for later reading comprehension: The importance of and ideas for targeting inferencing in storybook-sharing interventions. *Psychology in the Schools, 45*(7), 627-643.
- Woodcock, R. W., Muñoz-Sandoval, A. F., Ruef, M. L., & Alvarado, C. G. (2005a). *Woodcock language proficiency battery-revised*. Itasca, IL: Riverside.
- Woodcock, R. W., Muñoz-Sandoval, A. F., Ruef, M. L., & Alvarado, C. G. (2005b).

*Woodcock language proficiency battery-revised* - Spanish form. Itasca, IL:  
Riverside.

Yesil-Dagli, U. (2010). Predicting ELL students' beginning first grade English oral reading fluency from initial kindergarten vocabulary, letter naming, and phonological awareness skills. *Early Childhood Research Quarterly*, 26, 15-29.