Dual Language Learners Home Literacy Environment: A Training Workshop for Head Start Professionals

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DUAL LANGUAGE LEARNERS HOME LITERACY ENVIRONMENT: 
A TRAINING WORKSHOP FOR HEAD START PROFESSIONALS 

By 

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A creative project submitted in partial fulfillment 
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ABSTRACT

Given that demographic statistics in early childhood settings show an increase in the number of children who are Dual Language Learners (DLLs), it is necessary to provide early childhood education professionals with information and skill-building opportunities regarding how to best serve DLL children. Head Start, a federally funded preschool for children and families living in poverty, provides services for an increasing number of DLLs. Head Start professionals are in need of effective professional development about DLLs and their families. This study examined the effects of a training on Head Start professionals' knowledge and skills for working with DLL families. Participants included Head Start preschool teachers and home visitors who were serving children from birth to 5 years of age. The training consisted of lecture and learning activities. Participants took pre- and post-tests based on content covered during training and a participant belief survey. Results showed an increase in participant knowledge and a change in belief rating. The results provide a framework for developing and delivering similar training content and materials in preschool settings.
Garcia and Jensen (2009) state, “Young Hispanic children constitute an urgent demographic imperative” (p. 1), both because of the growing population of Hispanic youth and because of the unique challenges of growing up bilingual. Given that Hispanic students in the US are more likely to be living in poverty, this places them at greater risk for academic failure compared with their white peers (Hernandez & Napierala, 2013). Hispanic children consistently have higher high school dropout rates and lower high school completion rates compared with white students (Farver, Lonigan, & Eppe, 2009). This poor academic achievement includes Hispanic students in Utah, where in the 2010-2011 school year, only 57% graduated high school compared with 80% of white students (Stetser & Stillwell, 2014). The achievement gap is of serious concern; especially considering that Hispanic children constitute the fastest growing group of students in the US and Utah education systems (Farver et. al).

According to Hernandez and Napierla (2013), Hispanic students are less likely to be reading at a proficient level at 3rd grade when compared with their white peers. For example, in 2011, 56% of white 3rd grade students were not reading at a proficient level, while 95% of 3rd grade Hispanic Spanish speakers were not reading at a proficient level. Furthermore, compared with white students, Hispanic Spanish speakers who were not reading proficiently were twice as likely to not graduate (Hernandez & Napierla, 2013).

There is evidence that Spanish speakers who enter kindergarten with high early literacy skills make greater gains during schooling compared with Spanish speakers who begin their education with lower scores (Garcia & Jensen, 2009; Hammer et al., 2012). Early literacy skills (ELS) include oral language, print knowledge, and phonological
awareness (Farver, Xu, Lonigan, & Eppe, 2013). The home literacy environment (HLE) is known to affect ELS development (Sénéchal & Lefevre, 2010) and is measured by the support for language used in the home, in addition, to the quantity and quality of literacy activities and resources in the home. There is significant evidence that HLE predicts monolingual early literacy skills (Snow, Burns, & Griffin, 1998), but less is known about the HLE and Spanish speakers. My literature review and project focuses on HLE for Spanish-speaking children and its ability to support the development of early literacy skills.

**Literature Review**

I used a variety of strategies including search engines and databases (Google Scholar, EBSCO, ERIC education) and the following search terms: home literacy environment, dual language learners, parent training, and early literacy. Articles that met the following criteria were included in the literature review. The target population was Spanish-speaking children 5 years old or younger and the article focused on home environments or interventions targeting parent training. I further conducted an archival search, identifying additional articles in the reference sections of articles identified in the original search. To synthesize the literature, I divided the analysis into the following topics: (a) home literacy activities, (b) home language use: immediate impact, (c) home language use: long-term impact, and (d) Head Start family training.

**Home Literacy Activities**

Children learn language from exposure to and use of language in their environment (Bohman, Bedore, Peña, Mendez-Perez, & Gillam, 2010; Place & Hoff, 2011). The amount of language a child is exposed to predicts oral language skills (Quiroz
& Snow, 2010). Sénéchal and LeFevre (2010) describe language exposure as an informal literacy activity that may include conversations or shared book readings. Formal literacy activities include activities that focus on print and the sounds of letters and words. Sénéchal and LeFevre studied English-speaking middle class families and their use of formal and informal literacy activities. Children who scored higher in oral language skills had parents with a greater knowledge of children's books, indicating they likely read more with their child. Children who had higher phonological and print skills had parents who reported spending more time directly teaching these skills. The results showed that different types of ELS (oral language, vs. phonological awareness) were predicted by different HLE factors.

Farver et al. (2006) conducted a study to see how HLE related to oral language outcomes. Participants were 122 preschool aged children between 39 and 49 months of age. All children attended a Head Start preschool in inner-city Los Angeles. Based on language questionnaires, the children were divided into three language groups: English Only (EO), Spanish Only (SO), and Bi-Lingual (BL). Oral language proficiency was tested using the Peabody Picture Vocabulary Test-Revised (PPVT-R; Dunn & Dunn, 1981) or the Spanish version Test de Vocabulario en Imágenes Peabody (TVIP; Dunn, Lugo, Padilla, & Dunn, 1997). Parents completed the Home Literacy Environment Questionnaire, which asks parent to respond to statements using a 7-point scale (1 = never, 7 = daily). The questions include items such as how often a child requests a shared book reading, how often a parent initiates literacy activities, and how interested their child is in reading. Family involvement in literacy was strongly correlated with oral language skills, regardless of which language was spoken in the home. Parent report of
their child’s high interest in books predicted both the amount of family involvement and oral language skills. These findings support past studies which show that early exposure to books predict greater interest in books (Lonigan & Whitehurst, 1998). Based on these results, Farver et al. suggest future research should determine how to increase a child’s motivation and interest in reading.

**Home Language Use: Immediate Impact**

Quiroz and Snow (2010) studied HLE, focusing on shared book reading characteristics and parent reports about home literacy activities. Participants were part of the Early Childhood Study (ECS) of language and literacy development of Spanish-speaking children. Participants included 51 families, 46 of whom attended Head Start programs in which English was the only language of instruction. Home visitors audiotaped parent interviews and shared book readings with the mother-child dyads. Results from the parent interview provide evidence that mothers who had higher English literacy skills spoke with their child more in English. Child English vocabulary scores were positively associated with the mother speaking English with their child. Conversely, English was negatively associated with mother’s who reported using more Spanish than English. These results support findings from similar studies showing the amount of exposure to each language predicts vocabulary scores in the corresponding language (Páez, Tabors, & López, 2007). Parent labeling during the shared book reading was positively associated with Spanish and English vocabulary scores. The authors hypothesized that this finding may indicate that there is a cross-linguistic feature of labeling during book reading, and that when a child is accustomed to answering labeling
questions during shared reading, they learn to focus on specific words in the book. This skill may transfer to a shared book reading regardless of language.

The studies described above provide evidence that HLE is an important consideration for preparing young Spanish speakers for school. Both studies however focused primarily on vocabulary scores. Phonological awareness and print knowledge are two other important ELS that predict later reading achievement. Farver et al. (2013) measured oral language, print knowledge and phonological awareness skills of 392 Spanish speakers at preschool entry in English and Spanish. In addition to measuring ELS, they also interviewed parents about home literacy practices and thru direct observation the researchers recorded the amount of literacy related materials found in the home. Results showed that similar to Quiroz et al. (2010), the amount of parent literacy activities in Spanish were positively related to child oral language scores in Spanish, and negatively related to child oral language scores and phonological awareness skills in English. The only relation with Spanish literacy resources in the home was a positive relation to print knowledge in Spanish. The amount of parent literacy activities in English was positively related with child English oral language. Family literacy resources in English were positively related to child print knowledge in English, but were not related to Spanish print knowledge. The results of this study are important for two reasons. First, the results support previous studies that show the amount of English and Spanish heard at home is related to oral language skills in both languages, while also showing that phonological awareness and print knowledge skills are also related to language use in the home. The second important finding is that all participants in the study entered pre-school with significantly lower ELS scores in English compared with children who are
not at risk and not DLLs. This is important because children who have home literacy environments that provide English literacy experiences, hear more English, and have English literacy materials available are still not making enough progress in English development compared with their monolingual peers. Further research is needed to understand which home literacy factors may best predict improvement in ELS for each language.

Place and Hoff (2011) studied home and community language environments of toddlers in South Florida. All families had at least one parent who was a native Spanish speaker. Parents kept detailed diaries of language input on 30-min intervals, with details of which language was used, and in what context. The researchers found that children making the greatest gains of English vocabulary gains were those whose mother was a native English speaker. These children were also exposed to a greater number and variety of native English speakers other than their family, where conversations were in English. Comparatively, children were exposed to significantly fewer conversations with native English speakers if their mother was a native Spanish speaker. The results showed that children who were exposed to non-native English input had lower English vocabulary scores compared with children who were exposed to native English input. Spanish vocabulary scores were higher for children when both parents were native Spanish-speakers, compared with one native speaker; However, Spanish vocabulary scores for children with two native Spanish-speaking parents were not significantly higher than English vocabulary scores. The authors of the study used these findings to further caution teachers and other community members from encouraging non-native English speakers from speaking English to their children, as the research is consistently indicating this will
not help their child learn English. While this study does not indicate language trajectory based on HLE, it does provide information about the differential impact of native versus non-native language exposure.

**Home Language Use: Language Trajectory**

Early oral language scores for young Spanish speakers indicate that more English exposure predicts greater English oral language. For children exposed to early non-native English, their early gains in oral language diminish overtime compared with children who were not exposed early to English. For example, Mancilla-Martinez and Leseux (2011) measured vocabulary development and rate of vocabulary growth among a cohort group of students beginning at age 4 and ending at age 12. The authors initially recruited 387 families who had a 4-year-old child and whose family spoke Spanish in the home. Of these original families, 180 families were successfully retained into the study when their child was 11 years of age. Each child was put in a home language pattern category. Home language questionnaires were administered either over the phone or in person to determine which category of home language pattern was appropriate for each child. The three home language pattern categories were: mostly Spanish (MS) (54%), mostly English (ME) (29%) and equal amounts of both (EA) (16%). Vocabulary data were collected at seven points in time. The first data collection point was when the participants were 4 years in age. In English, all three groups (ME, EA, MS) were below national norms for initial vocabulary. When comparing English vocabulary growth with children from the ME group, both EA and MS groups had significantly lower initial amounts of English vocabulary. Both the EA and MS groups had higher vocabulary acceleration in English and lower vocabulary deceleration rates in Spanish vocabulary when compared
to the ME group. The ME group’s initial vocabulary in English was measured to be 1 standard deviation below national norms. By final testing at age 12, that gap had only narrowed to 0.8 standard deviations. In contrast, the EA and MS groups initial vocabulary in English were about 2 standard deviations below national norms. By final testing, that gap had narrowed to about 1 standard deviation. This study shows that Spanish use at home did not interfere with English vocabulary development.

In Spanish, children from the ME group had significantly lower levels of initial Spanish vocabulary compared to the MS group and the EA group. At initial testing in Spanish vocabulary, children in the ME group were 3.2 standard deviations below national norms as compared to 2.3 for the EA group and 1.9 for the MS group. These groups had nearly parallel growth trajectories meaning that by age 12, there was still about 1 standard deviation difference between ME and both (MS, EA) Spanish groups where the MS and EA groups scored 3 standard deviations below norms in Spanish vocabulary, the ME group scored 4 standard deviations below national norms. Vocabulary scores for all children in the study did remain significantly below national norms in English and Spanish. Like the Place & Hoff study this may support the notion that Spanish-speaking families who speak English in the home will not necessarily improve long-term English vocabulary scores, but speaking Spanish does improve long term Spanish acquisition, which could serve as an important resource for English acquisition when children enter school (August & Shanahan, 2006)

The literature review thus far indicates that multiple home language factors influence long-term language and literacy outcomes. Parent's language use, (Spanish or English), has an impact on oral language scores (Hoff & Place, 2011; Mancilla-Martinez
The quality of home literacy activities also impact oral language, phonological awareness and print knowledge score (Farver, Xu, Eppe, & Lonigan, 2006; Farver et al., 2013; Quiroz & Snow, 2010; Senechal & LeFevre, 2002). Given the strong evidence that indicates HLE variables are related to ELS scores in English and in Spanish for Spanish speakers, it is important that Spanish-speaking parents are given resources to create strong HLEs. Head Start is uniquely situated to provide training for Hispanic families in creating better HLEs for their young children.

**Head Start Family Involvement**

Head Start is a federally funded early intervention program that was created in 1965. Children 5 years and younger are eligible to participate based on low-income status. According to the Head Start report to congress, 26% of Head Start participants are Hispanic ("Report to Congress,"2013). Head Start performance standards indicate that programs must respect and support the culture and home language of families (H.R. 1429, 2007), however in the field many practices fall short.

In a survey of Head Start program directors, directors were asked to prioritize areas to increase parent involvement. One area that most directors identified was increasing parent education on child development. Skill development through parent coaching and training was not identified as a priority (Hindman & Morrison, 2013). In addition, HLE improvement was also not identified as a priority (Hindman & Morrison). It is problematic that Head Start program directors failed to identify improving HLE, parent coaching, and training as priorities. The research suggests that improved HLE may lead to improved ELS for Spanish-speaking children. Behavior change research suggests that training that incorporates coaching and on-going feedback are necessary to achieve
desired behavior outcomes (Guskey, 2003). Head Start program directors either do not recognize that Spanish-speaking HLEs need improvement, or do not recognize that coaching is an effective approach for improving HLE.

While there have been many descriptive studies describing the role of HLE on Spanish children's long term literacy skills, I was unable to find any studies that included Head Start programs training parents to improve HLE characteristics. The literature described above provides compelling evidence that HLEs are critically important in a child's literacy and language development. It is necessary to study effective methods to improve HLE and educate parents on their role in supporting their child's literacy. The training must address ways to improve the quantity, quality, and child use of language and literacy at home.

**Interpreter use**

Building strong relationships with families is a critical element of Head Start programming. While few studies are available for interpreter use in educational settings, there is research available in the health sector. Aranguri, Davidson, and Ramirez (2006) showed that families who needed an interpreter rated their relationship with their doctor significantly lower than patients who did not need an interpreter. Further, this study showed that the use of the interpreter negatively affected the patients’ trust in the doctor. A major finding in this study was that when an interpreter was present, virtually no 'small-talk' occurred. Small talk has been shown as an integral part of relationship building. In addition, 'small-talk' often leads to more information related to health concerns, therefore small-talk aids in gathering a comprehensive account of a patient's medical history, including environmental factors. While this study describes doctor-
patient relationships using an interpreter, it is reasonable to say that untrained interpreter
may have the same negative effect in the context of early intervention services. In the
Head Start report to Congress on services provided to DLLs, data showed that home
visitors spend significantly less time educating and providing specific feedback on skill
acquired during play with language minority families than English-speaking families.
Furthermore, this report also states that home visitors rarely used informal interpreters,
while the majority of visits were conducted using English or a combination of English
and gestures to convey meaning ("Report to Congress").

**Workshop training**

In order to face the challenge of supporting our DLLs and their families, Head
Start teachers need content expertise and instructional strategies. Because they teach the
child and the family, they must also have the skills to train families about dual language
development and provide strategies for how to enhance the language environment at
home. One approach to effective professional development is to focus on increasing the
instructional self-efficacy of the educator. Lameroy and Wilcox (2005) describe self-
efficacy as the expectation a person has about their own ability to accomplish a task. In
order for a person to perform with competence, they will need knowledge, skills and
confidence that their effort will be successful (Bandura, 1977). Guskey (2009) described
a comprehensive review of professional development literature, which showed that
workshop training was involved in all studies that were proven effective. He stresses that
the professional development did not exclusively include workshops, but workshops were
a key component to the comprehensive program. Campbell (2009) reported that
workshops were the most widely used method for delivering training, and also teachers'
most preferred delivery of training; however, many studies have shown workshops to be ineffective, due to a lack of clear expectations for what teachers should do differently after attending the training. This information does indicate that if key components are not included in the workshop directly, and follow-up systems are not in place, workshops may be an ineffective training method.

I chose to design my project based on a workshop framework. I did this because a workshop fits into the context of the program. I used the research that describes how workshops can be effective, such as using active learning activities, offering time for reflection and discussion, providing clear expectations, and indicating that a follow-up survey will follow the training.

**Purpose Statement and Project Aims**

The purpose of this project was to educate Head Start teaching staff and home visitors about home language environments for Spanish-speaking and other language minority families. The project aim was to increase participant knowledge and skills. A second aim was that participants use the information and new skills to educate families.

**Research Questions**

1. Will participants increase scores in content knowledge from pre- to post-test?
2. Will participant belief ratings change from pre-test to post-test?
3. Will participants use information from the training when communicating with families?
Methods

Participants and Setting

Professional background of participants. All participants were currently working, or have worked with families who speak Spanish at home (100%). The majority of participants have bachelor degrees (50%), while a few had associates (33%) or master's degrees (10%). Further description of professional background can be found in Table 1.

Demographic characteristics of participants. Participants in this study included preschool teachers and home visitors working for a Head Start program in the Intermountain West. The program included both center based (75%) and home visiting (25%) service delivery models. The majority of participants were White (85%) or White/Hispanic (13%). (See Table 2)

Table 1.

Professional Background of Participants

<table>
<thead>
<tr>
<th>Characteristic</th>
<th>n</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Years of employment</td>
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</tr>
<tr>
<td>First year</td>
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<td>28</td>
</tr>
<tr>
<td>2-4 years</td>
<td>9</td>
<td>18</td>
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<tr>
<td>5-10 years</td>
<td>13</td>
<td>26</td>
</tr>
<tr>
<td>10+ years</td>
<td>14</td>
<td>28</td>
</tr>
<tr>
<td>Highest level of education</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Less than 4-year degree</td>
<td>17</td>
<td>33</td>
</tr>
<tr>
<td>4-year degree</td>
<td>25</td>
<td>49</td>
</tr>
<tr>
<td>Some grad school</td>
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<td>10</td>
</tr>
<tr>
<td>Graduate degree</td>
<td>4</td>
<td>8</td>
</tr>
<tr>
<td>Teacher setting</td>
<td></td>
<td></td>
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<td>-----------------</td>
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<td>-----</td>
</tr>
<tr>
<td></td>
<td>36</td>
<td>70</td>
</tr>
<tr>
<td>Home based</td>
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<td>24</td>
</tr>
<tr>
<td>No</td>
<td>3</td>
<td>6</td>
</tr>
</tbody>
</table>

Has spoken with at least one family about home language use:

|                  | 42  | 82  |
|                  | 9   | 8   |

Had at least one DLL in class or caseload at time of training:

|                  | 45  | 90  |
|                  | 5   | 10  |

Has ever had DLL in class or caseload:

|                  | 50  | 100 |
|                  | 0   | 0   |

Table 2.

**Demographic Characteristics of Participants**

<table>
<thead>
<tr>
<th>Characteristic</th>
<th>n</th>
<th>%</th>
</tr>
</thead>
<tbody>
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<td>Race/Ethnicity</td>
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<tr>
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<td>13</td>
</tr>
<tr>
<td>No response</td>
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<td>2</td>
</tr>
<tr>
<td>Speaks more than one language</td>
<td></td>
<td></td>
</tr>
<tr>
<td>No</td>
<td>30</td>
<td>58</td>
</tr>
<tr>
<td>Yes</td>
<td>22</td>
<td>42</td>
</tr>
</tbody>
</table>
Training Location

The training was conducted at a local Head Start Center. The space was an open carpeted area where gross motor activities would be carried out during a typical preschool day. The participants sat in rows of folding chairs that were temporarily set up for the training.

Measures

Description of response measures. Three dependent variables were measured. First, dual language content and practice knowledge was measured by a comprehensive content test that was independently completed by each participant prior to the training. The content test was broken into three main categories: dual language development, language in the home, and how to use an interpreter. The test included 14 questions and the post-test consisted of identical questions as the pre-test, including the ordering of the questions.

A second dependent variable was the participants' self-efficacy and beliefs based on pre- and post-test responses to 10 statements based on a 7-point Likert scale (1 [strongly disagree] to 7 [strongly agree]). The content of the Likert scale items consisted of statements that were adapted from the Early Interventionist Self-Efficacy Scale (Lameroy & Wilcox, 2005), which was modeled after Bandura's social cognitive theory. I adapted statements from the scale to capture beliefs related to DLLs. For example, the statement from the Early Intervention Self-Efficacy Scale stated: I have enough training to deal with most problems encountered in providing early intervention services to families and their children. I adapted this statement for my survey to say: I have enough training to deal with most problems encountered in providing early intervention services
to Dual Language Learner's families and their children. I measured participant beliefs in two categories: working with dual language learners at school and working with dual language learners at home. Belief statements can be found in Table 3.

The final dependent variable was participant behavior one month following the training. The follow up survey included two open-ended questions. First, “Have you applied any aspects of the training in your interactions with families?” If “no”, the participant was prompted to answer why he or she had not applied information from the training. If he or she answered “yes”, he or she was prompted to list how and what information had been applied in practice.

Table 3.

**Belief Rating Scale**

**Confidence working with DLLs in the home**

1. I feel comfortable talking about home language use with families.
2. I feel confident that I know how to work with an interpreter.
3. I feel comfortable doing home visits in homes with families from cultures different than my own
4. If I have a family who speaks more than one language at home, I feel confident I can talk to them about the best language environment for the child (which parent should speak which language).
5. I feel confident in talking with parents and colleagues about evidence based strategies to support dual language learners.

**Confidence working with DLLs in the classroom**

1. I know the language background of every child that I serve, including: what languages are spoken at home, day care; what language family members typically speak with the child.
2. When I am unsure about an issue about dual language learners, I know who I can ask for support.
3. I know of internet resources relating to dual language learners.
4. When a dual language learner is having difficulty with a task, I am usually able to provide the family with suggestions that work.
5. I have enough training to deal with most problems encountered in providing early intervention services to dual language learner families.

Data Collection

Participants answered the pre-test questionnaires either electronically or using pen and paper immediately prior to and immediately following the training session. All participants completed the post-test immediately following the presentation using pen and paper. Initially, I had intended that most participants would complete the tests electronically; however, due to technical limitations, and participant concern for privacy, only a small number of participants completed the survey prior to the training day using the on-line delivery method.

Participants completed the one-month follow-up survey using pen and paper during an in-service training. The survey was handed out by a program administrator, and collected by the same administrator.

Procedures

Training session. All participants attended one 3 hour in-service training. The content of the training session was delivered via a PowerPoint which is included in Appendix A with all training materials. The training focused on three main topics: (a) dual language development; (b) how to use an interpreter; and (c) the role home language plays in English language development.

Content Knowledge.

Dual language development. I presented basic information about two types of dual language learners: simultaneous and sequential. I discussed the ways in which we can collect information to determine if a child is a simultaneous or sequential learner. We
then, as a group, discussed how this information should guide our advice with families from differing language backgrounds.

**Home language use.** I presented information about home language use and its role in language and literacy development. I presented current research on the impact home language use has on early literacy measures. I also included dialogic reading strategies, and stressed the importance that it is not just speaking your native language at home, but that enriched literacy environments are a critical component.

**Using an interpreter.** I provided training in best practices on use of an interpreter. I included how to establish expectations with an interpreter before beginning the meeting, direct communication with family member, positioning of teacher, interpreter, and family member, and other important skills in using an interpreter.

**Active learning elements.**

**Write-pair-share/shared brainstorming.** This activity allows participants to brainstorm ideas independently, as a small group, and as a large group. I prompted participants with the question: List all benefits of being fluently bilingual. They were given 2-3 min to independently write down as many benefits as they could think of. They were then instructed to work in a small group to continue brainstorming. After 10 min total, we gathered as a large group. One participant read her list of benefits. All other groups were instructed to cross off items as they were read. This follows a similar structure as a board game such as scattegories, adding an engaging competitive element to the activity.
Large group discussion. After small group discussions, I allowed time for the large group to share small group discussions. For example, we broke into small groups to discuss experiences of conducting home visits with families who spoke a different language. After small group discussion time, we gathered as a group and continued the discussion.

Role-play. Role play is an effective activity for improving a new skill. It allows a person to practice in a controlled setting and receive feedback. We role-played twice during the training. First, we set up a situation where three volunteers came up to the front and situated themselves how they would sit, if one was the home visitor, one was a parent, and one was the interpreter. They practiced addressing the parent directly without looking at the interpreter. The second role-play involved a Spanish-speaking teacher. She was instructed to read one of the Spanish language children's books to the class. Because most of the participants did not speak English, we talked about ways to engage in the book, using strategies from dialogic reading.

Data Analysis

Content knowledge pre-test/post-test. I analyzed results from the pre-test/post-test scores by summing total correct responses on all questions within a topic and across participants, and divided by the total possible number of correct responses on all questions within a topic and across participants. By doing this, I was able to see the overall change in participant knowledge test score per topic.

Teacher beliefs. To analyze change in participant beliefs, I calculated the sum for all questions within each category by the number for each rating score (1-7) in the pre-test, compared with the sum for each rating score (1-7) in the post-test. By doing this, I
was able to see the distribution of responses, and how they changed from pre to post-test. I chose this method of analysis because other methods, such as calculating average ratings, did not provide a visually informative picture of the change in rating scores, compared with the visual presentation of change.

In addition to this, I calculated the changes in ratings for one statement: I feel confident I know how to use an interpreter. I chose to do this because I noticed a consistently high change in self-rating from pre- to post-test.

Results

Content Knowledge Pre-test/Post-Test

Participants increased the percentage of correct responses for each of the targeted learning topics. The greatest gains were seen in the Language Development category, where participants correctly answered 34% of the questions as a group at pretest. At post-test, participants answered 81% of questions correctly, increasing the percentage correct by 47%. Participant gains for the topic of Interpreter Use (pretest: 42%; posttest 57%) and Dual Language Learners at home (pretest: 57%; posttest 70%) showed participant improvement, however the gains were less than for the topic Language Development. These results can be seen in Table 4 and Figure 1.

Teacher Belief

Pre-test and post-test results show an increase in the percent of participants with ratings (somewhat agree, agree, or strongly agree) that indicate confidence; and a decrease in the percent of participants with ratings (neither agree nor disagree, disagree, somewhat disagree, strongly disagree) that indicate no confidence to statements relating
to working with DLLs in the classroom, and working with DLL families in the home. This indicates that participants’ confidence increased for both categories. See Table 5.

**Confidence in working with DLL families in the home.** Participant ratings that indicate confidence (somewhat agree, agree, or strongly agree) increased from pre to post-test (65%, 95%). Participant ratings that indicate no confidence (neither agree nor disagree, disagree, somewhat disagree, strongly disagree) decreased from pre to post-test (36%, 5%). These results can be viewed in Figure 2. Statement examples can be found in Table 3.

**Confidence in working with DLLs in the classroom.** Participant ratings that indicate confidence (somewhat agree, agree, or strongly agree) increased from pre to post-test (54%, 86%). Participant ratings that indicate no confidence (neither agree nor disagree, disagree, somewhat disagree, strongly disagree) decreased from pre to post-test (46%, 14%). These results can be viewed in Figure 3.

**Confidence in working with an interpreter.** I conducted an additional analysis of one statement: I feel confident I know how to work with an interpreter. Participant ratings that indicate confidence (somewhat agree, agree, or strongly agree) increased from pre to post-test (53%, 96%). Participant ratings indicate no confidence (neither agree nor disagree, disagree, somewhat disagree, strongly disagree) decreased from pre to post-test (47%, 4%). These results can be viewed in Figure 4.
Table 4.

*Overall Pre-Test and Post-Test Changes in Scores by Training Topic*

<table>
<thead>
<tr>
<th>Training Topic</th>
<th>Pretest</th>
<th>Posttest</th>
<th>Difference (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Language Development</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Q1 period when child is non-verbal</td>
<td>34%</td>
<td>81%</td>
<td>47%</td>
</tr>
<tr>
<td>Q2 simultaneous bilingual exposure</td>
<td>48%</td>
<td>85%</td>
<td>37%</td>
</tr>
<tr>
<td>Q3 L1 refers to</td>
<td>8%</td>
<td>92%</td>
<td>84%</td>
</tr>
<tr>
<td>Q4 Cross linguistic transfer is...</td>
<td>62%</td>
<td>96%</td>
<td>34%</td>
</tr>
<tr>
<td><strong>Interpreter Use</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Q5 recommended type of interpretation</td>
<td>25%</td>
<td>76%</td>
<td>51%</td>
</tr>
<tr>
<td>Q6 things families should do</td>
<td>86%</td>
<td>80%</td>
<td>-6%</td>
</tr>
<tr>
<td>Q7 things interpreter should do</td>
<td>35%</td>
<td>49%</td>
<td>14%</td>
</tr>
<tr>
<td>Q8 what to do when interpreter is unavailable</td>
<td>25%</td>
<td>29%</td>
<td>4%</td>
</tr>
<tr>
<td>Q9 things a home visitor should do</td>
<td>40%</td>
<td>57%</td>
<td>17%</td>
</tr>
<tr>
<td><strong>DLL at Home</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Q10 native language exposure will</td>
<td>98%</td>
<td>96%</td>
<td>-2%</td>
</tr>
<tr>
<td>Q11 cognitive benefits of being bilingual</td>
<td>0%</td>
<td>20%</td>
<td>20%</td>
</tr>
<tr>
<td>Q12 relationship of three factors to support DLLs</td>
<td>90%</td>
<td>75%</td>
<td>-15%</td>
</tr>
<tr>
<td>Q13 use of home language questionnaire</td>
<td>86%</td>
<td>92%</td>
<td>6%</td>
</tr>
<tr>
<td>Q14 definition of dialogic reading</td>
<td>14%</td>
<td>76%</td>
<td>62%</td>
</tr>
</tbody>
</table>
Figure 1. Content knowledge pre-test/post-test scores.

Table 5.

Overall Pretest and Posttest Changes in Belief Ratings

<table>
<thead>
<tr>
<th>Confidence working with DLLs in classroom</th>
<th>Pretest</th>
<th>Posttest</th>
<th>Difference</th>
</tr>
</thead>
<tbody>
<tr>
<td>Strongly disagree</td>
<td>2%</td>
<td>0%</td>
<td>-2%</td>
</tr>
<tr>
<td>Disagree</td>
<td>10%</td>
<td>2%</td>
<td>-8%</td>
</tr>
<tr>
<td>Somewhat disagree</td>
<td>14%</td>
<td>3%</td>
<td>-11%</td>
</tr>
<tr>
<td>Neither agree nor disagree</td>
<td>20%</td>
<td>9%</td>
<td>-11%</td>
</tr>
<tr>
<td>Somewhat agree</td>
<td>22%</td>
<td>31%</td>
<td>9%</td>
</tr>
<tr>
<td>Agree</td>
<td>21%</td>
<td>40%</td>
<td>19%</td>
</tr>
<tr>
<td>Strongly disagree</td>
<td>12%</td>
<td>15%</td>
<td>3%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Confidence working with families in home</th>
<th>Pretest</th>
<th>Posttest</th>
<th>Difference</th>
</tr>
</thead>
<tbody>
<tr>
<td>Strongly disagree</td>
<td>3%</td>
<td>0%</td>
<td>-3%</td>
</tr>
<tr>
<td>Disagree</td>
<td>8%</td>
<td>0%</td>
<td>-8%</td>
</tr>
<tr>
<td>Somewhat disagree</td>
<td>10%</td>
<td>15%</td>
<td>-5%</td>
</tr>
<tr>
<td>Neither agree nor disagree</td>
<td>15%</td>
<td>3%</td>
<td>-12%</td>
</tr>
<tr>
<td>Somewhat agree</td>
<td>18%</td>
<td>20%</td>
<td>2%</td>
</tr>
<tr>
<td>Agree</td>
<td>27%</td>
<td>47%</td>
<td>20%</td>
</tr>
<tr>
<td>Strongly disagree</td>
<td>20%</td>
<td>28%</td>
<td>8%</td>
</tr>
<tr>
<td>Confidence using an interpreter</td>
<td>Pretest</td>
<td>Posttest</td>
<td>Difference</td>
</tr>
<tr>
<td>--------------------------------</td>
<td>---------</td>
<td>----------</td>
<td>------------</td>
</tr>
<tr>
<td>Strongly disagree</td>
<td>12%</td>
<td>0%</td>
<td>-12%</td>
</tr>
<tr>
<td>Disagree</td>
<td>6%</td>
<td>0%</td>
<td>-6%</td>
</tr>
<tr>
<td>Somewhat disagree</td>
<td>12%</td>
<td>2%</td>
<td>-10%</td>
</tr>
<tr>
<td>Neither agree nor disagree</td>
<td>17%</td>
<td>2%</td>
<td>-15%</td>
</tr>
<tr>
<td>Somewhat agree</td>
<td>27%</td>
<td>15%</td>
<td>-12%</td>
</tr>
<tr>
<td>Agree</td>
<td>19%</td>
<td>54%</td>
<td>35%</td>
</tr>
<tr>
<td>Strongly disagree</td>
<td>8%</td>
<td>27%</td>
<td>19%</td>
</tr>
</tbody>
</table>

*Figure 2. Belief ratings: working with families.*
Follow-up survey. Data from the follow-up survey indicate that 52% of participants used information from the training with their DLL families. In addition, 48% shared information in the training with co-workers or other friends, 73% of participants would like more information about working with DLLs.

Discussion

Results show that participant knowledge scores and belief ratings increased for all categories. Results also show that participant gains were greater in the Dual Language
Development category than the categories Using an Interpreter or Dual Language families. While these results provide preliminary evidence that a brief training can increase participant test scores, the results indicate that topics that were covered for a longer amount of time also had greater increases in scores. Furthermore, the results provided information about which topics were described sufficiently, and which areas may have needed greater explanation and time. For example, questions relating to dual language development and dialogic reading were answered correctly by more participants compared with questions that related to how to use an interpreter.

Belief ratings increased for all participants. This is important because rating items were designed to measure a participant's confidence. While I expected content scores would align with belief ratings, where higher content scores indicated greater belief ratings, this was not the case for the relationship between the belief statement about confidence in working with an interpreter, and content scores related to using an interpreter. Participant content gains in the interpreter topic were much smaller than for the other topics, but participant belief ratings greatly increased. This may indicate that participant's beliefs may change even when they do not improve in their knowledge of a topic. I believe that participant's belief ratings improved for this statement because we spent a lot of time discussing and practicing how to work with an interpreter. We role played how to have a pre-meeting with an interpreter to discuss expectations. We also role played where people should sit during a home visit with an interpreter. I believe scores about using an interpreter did not improve because the content question was confusing. Questions in the interpreter section allowed for multiple-choice selection, which made it more difficulty to score an answer correctly than in other sections. This
misalignment of assessment measures is an important consideration. There is limited evidence that suggests that participants’ self-reported confidence in using a skill may increase the likelihood that they will use the skill compared with those with lower self-reported confidence (Lameroy & Wilcox, 2005). If participants report confidence, but demonstrate they do not understand a concept, they may incorrectly use the skill. Assessing participants is important to ensure they use information and skills correctly.

Finally, the follow-up survey showed that over half of the participants used the information either directly with families or indirectly with co-workers or friends according to self report. The indirect purpose of the training was that participants use the information and skills. It is an important finding that participants did indicate that they used the information.

While this project was limited in intensity and duration, it does provide valuable information about what Head Start employees may know about dual language development. The project also shows that this brief workshop was able to increase participant knowledge and confidence. Furthermore, many participants reported using information from this training immediately in their job.

Limitations and Future Research

There are limitations that are important to consider. While content mastery and belief ratings are important components of a comprehensive training protocol, my project lacked direct observation to see that participant behavior changed as a result of the study. Furthermore, I did not measure changes in parent or child behavior, as a result of the training. This information could strengthen the argument that this training is an effective approach for improving parent and child outcomes. While I do believe this training is an
important piece, in isolation, I do not believe this training is sufficient to cause meaningful changes in parent or child outcomes.

Another limitation was the time. There was not enough time to apply all components of the training. Time constraints also limited the amount of time each area was discussed. If I were to deliver this training in the future, I would either need to secure more time to deliver the training, if extra time was not a viable option, I would instead need to edit and prioritize active ingredients within the training, and focus on those points.

This project represents one component of a comprehensive training program. Future research should focus on parent training curriculum and implementation that improves child early literacy skills. This focus on directly educating parents may help parents to enhance HLE.

There is also a need to develop more comprehensive and evidence-based approaches to teacher training on this topic. Nuestros Niños, is a teacher training curriculum that may provide a guide for designing a comprehensive training program (Buysse, Castro, & Peisner-Feinberg, 2010), however little research has been conducted on its implementation. Future research will also be needed to explore how to develop train the trainer approaches to more widely disseminate this knowledge throughout educational agencies both efficiently and sustainably.

Enriched home language environments that support a child’s native language, may be the most effective home language strategy to improve long-term language and literacy outcomes in both the native language and English. Parents need support to create these environments. This project shows that a workshop is an effective method to increase teacher and home visitor knowledge and improve confidence. While this project
is an important piece, it did not show that parent or child outcomes improved as a result of the training. Research is needed to identify effective interventions that enhance DLL home language environments, and by doing so, improve child language and literacy outcomes.

**Research to practice**

**Professional Development**

This project has provided me with an experience I will be able to use in my current career, and in future opportunities to train parents, teachers, and coworkers. I have learned through researching the recent research relating to professional development that effective training involves many integral steps including educating, practicing, coaching and on going feedback. Each of the steps involve specific activities to meet goals. My project was to develop and implement a workshop to educate and practice skills. I learned important lessons in the process of planning, implementing and assessing the project.

**Planning and implementation**

The first step of planning future workshops will be to have very clear outcomes. I will use these outcomes to drive the allocation of time dedicated to each topic during the training. I need to prepare for groups that are very engaged, and groups that may be less inclined to participate. In my workshop, participants were very active during group discussions. Participants shared past experiences working with DLLs, challenges and triumphs in their experiences. The discussion enriched the workshop by providing real world examples. One way that I will be prepared for differences of group engagement will be to have a hierarchy of topics to cover. I will also have a greater sense of how
much time each topic will take, and control the length of group discussion as needed. I will also have options for active learning activities, so that I can match an activity that best matches the personality of the group.

**Assessment**

While planning is important, assessment is necessary to show that the workshop plan was successful to achieve outcomes. The assessment results will shape future workshops. In my past professional experience attending workshops, I have never been assessed on my understanding of the workshop content. After completing this project, I understand that assessment is a critical element of becoming an effective trainer. The assessment should be developed using outcomes to guide questions. Developing an assessment tool is difficult. It is difficult to accurately capture what a participant understands. The patterns of participant answers helped me to see which questions may have been poorly worded, and which topics I may not have covered sufficiently. My assessment showed me that covered topics that involved group participation also had greater improvement in participant pre- and post-test scores. For example, the topic of Dialogic Reading, I explained, modeled, and had a participant model dialogic reading, followed by discussion. I gave a memory device to remember it’s name. Participant correct answer to the question improved from 14% pre-test, 76% post-test.

**Follow up**

My project included minimal participant follow up. In the future I will also include planned follow up opportunities. Professional development that I provide in my own organization, I will include practice with feedback, direct observation with feedback, and on-going coaching. As a guest trainer, I will development fidelity checks that
programs can use to follow up on participant skill development. Workshop training at a conference is difficult because it relies on participant motivation to implement instead of an organizational expectation, but participants can be provided with self-monitoring checklists to increase the likelihood that interventions will be implemented regularly and with higher levels of fidelity.

Conclusion

In the process of completing this project, I was able to provide professional development to a Head Start program who had not received training on this topic in the past. The process helped me understand important ingredients for group training. Each step in the project from planning, implementation, assessment to follow up, has provided me with valuable lessons that I will be able to carry into my current career as a resource to my program for training and hopefully in the future as training opportunities might arise.
References


