



Beyond Professional Development: Factors Influencing Early Childhood Educators' Beliefs and Practices Working With Dual Language Learners

The National Association for the Education of Young Children and Head Start have clearly articulated their position on the provision of high-quality instruction for the 4 million dual language learners (DLLs) enrolled in early childhood (EC) programs nationwide. Professional development (PD) provides a way for educators to increase their knowledge and skills; however, teacher practices in the classroom are strongly influenced by implicit beliefs about how children learn. This study examined the influence of 6 PD sessions related to high-quality instruction for DLLs and examined other influential factors related to beliefs and practices. Participants were 98 early childhood educators serving 3- and 4-year-old DLLs in an urban area in the Southwest US. Quantitative findings indicate educators' beliefs and practices shifted after PD. Qualitative findings suggest that educators' empathy, expectations, and external factors also influenced their beliefs and practices. Implications for PD and program design are discussed.

As the US becomes increasingly diverse, educators are asked to meet the needs of a larger population of students from culturally and linguistically diverse backgrounds. Many young children from culturally and linguistically diverse backgrounds are acquiring two or more languages simultaneously in the home and/or school. These young learners are referred to as dual language learners (DLLs). More than four million dual language learners are now enrolled in early childhood (EC) programs (Goldenberg, Hicks, & Lit, 2013), and it is projected that by the 2030s, 40% of the US school

population in general will be children who speak a language other than English in the home (Aud et al., 2012; Magruder, Hayslip, Espinosa, & Matera, 2013). Because of increasing school populations of DLLs, many teachers will be responsible for instruction of children who speak a non-English language (Zehler et al., 2003).

The National Association for the Education of Young Children (NAEYC) and the Office of Head Start (OHS) have clearly articulated best practices for supporting the language and literacy development of young DLLs. These organizations emphasize that early childhood programs create environments and learning opportunities that respect diversity; support connections between children, their families, and their communities; and promote second language acquisition as well as the safeguarding of children's cultural identities and home languages (NAEYC, 2009; OHS, 2008). These position statements clearly establish guidelines for asset-based, enriched program models, yet inadequate professional preparation for teachers and administrators in the development and implementation of effective programs remains (Buisse, Castro, West, & Skinner, 2005; Gandara, Maxwell-Jolly, & Driscoll, 2005; Zepeda, Castro, & Cronin, 2011). As the population of DLLs continues to rise, the shifting of EC educator practices to align with asset-based environments and instructional models is of critical importance.

Our research study examines educator beliefs and practices in working with DLLs and factors that influence their beliefs and practices, including professional development (PD). Using exploratory sequential mixed methods, we argue that policy makers, administrators, and teacher educators consider looking beyond PD in shifting and improving practice. We offer a broader perspective on traditional PD by examining the beliefs and practices of 53 early childhood teachers and 45 instructional aides after a yearlong university PD in a state with large numbers of dual language learners enrolled in early childhood programs. Specifically, we sought to answer the following questions: (a) How do early childhood educators' beliefs and practices related to the provision of asset-based quality instruction for DLLs shift after a series of six PD trainings aimed at increasing their knowledge and skills through critical reflection and problem-solving activities? and (b) What are other influential factors, beyond PD, that may influence educators' beliefs and practices as reflected in focus group interviews?

The Relationship Between Teacher Beliefs and Practices

Learning environments and teaching practices that support DLL approaches call for shifts and changes in teaching behaviors. PD is one of the most promising avenues for improving teacher learning

and consequently shifting teacher practice (Correnti, 2007). There is converging evidence, however, that teacher beliefs influence the implementation of best practices in the classroom (Han, 2012; Nelson, 2000). PD models, therefore, that do not recognize the role of teachers' beliefs on student learning may be unsuccessful in shifting teacher practice (Clark & Hollingsworth, 2002; Gusky, 1986).

A belief can be defined as an assumption about the world or oneself based on experiences and external authorities (Athos & Gabarro, 1978), and a belief system constitutes the interrelationship among the beliefs, attitudes, and values one holds (Pajares, 1992). Teacher belief systems, then, can be generally defined as the interrelationship among teachers' assumptions about students and how they learn; their attitude toward students, families, and colleagues; and the values they hold in relation to education and the students they serve. The compilation of beliefs, attitudes, and values shapes the educator. Teachers' belief systems serve as screens through which instructional decisions are informed, preserved, and changed (Han, 2012).

Both preservice and in-service teachers have a set of developed assumptions, beliefs, attitudes, and values. Thus, some researchers argue that teacher belief systems are inflexible and resistant to change, therefore rendering PD as ineffective in amending their beliefs (Richardson, 2003). Researchers interested in early childhood education have noted that teachers hold strong and established belief systems, which are (a) based on their personal experiences in school and (b) brought into new learning experiences (i.e., PD). For example, Breffni (2011) found that a PD through a curriculum course significantly improved early childhood teachers' knowledge yet had minimal impact on changing beliefs. The author suggested that in order to truly effect a change in established belief systems, PD should be long-term and challenge current beliefs.

Other researchers argue that teachers' belief systems are transformative—changing through time as beliefs are reevaluated against their experiences (Vartuli & Rohls, 2009). Several studies working with early childhood education teachers have found PD to be effective in altering teacher beliefs (e.g., Duran, Ballone-Duran, Haney, & Belyukova, 2009; Isikoglu, 2009; LoCasale-Crouch, et al., 2011; Vartuli & Rhols, 2009). Many of these studies include PD specifically targeting teachers' reexamination of their beliefs based on the development of new learning and experiences. For example, Vartuli and Rohls (2009) followed a cohort of preservice teachers from their initial early childhood education course work, induction, and one year after employment. Their learning consisted of theoretical instruction coupled with ongoing practicum opportunities. Throughout their course work and

practicum, teachers were challenged to explore ideas and perceptions and reflect on them from multiple perspectives. They also reflected on how their beliefs changed through time. The researchers found teachers' beliefs changed from the onset of their teacher-preparation program, to the end of their program, and then one year after employment. The authors specifically noted the importance of teacher educators' supporting teachers in reexamining their beliefs based on new learning experiences.

The limited research on shifting early childhood teachers' beliefs and practices working with DLLs through PD indicates that shifts in beliefs and practices related to culturally and linguistically responsive pedagogy may take place in phases (Hardin et al., 2010). Hardin et al. (2010) found that early childhood teachers of ELs enrolled in a comprehensive PD program made significant changes to their physical environment to support ELs, but no significant differences were found in relation to changes in attitudes and values. The authors suggest that these changes require additional time.

In the present study, we sought to extend prior research by describing the nature of early childhood teacher and instructional aides' beliefs and practices before and after participating in a series of six PD sessions designed to expose practitioners to knowledge important for DLL early childhood learning (e.g., Espinosa, 2013; García & Frede, 2010; Goldenberg et al., 2013; Nemeth, 2012; Worthington et al., 2011). We describe educators' beliefs and practices pre- and post-PD engagement. The majority of teacher belief and practices studies have been conducted with teachers of non-DLL children or with teachers of ELs in elementary (e.g., Hart & Lee, 2003), secondary (e.g., Brancard & Quinnwilliams, 2012; Brooks & Adams, 2015), or postsecondary settings (e.g., Inozu, 2011). The current investigation, therefore, responds to this gap in the literature by investigating which DLL pre-school practitioner beliefs and practices shift or remain the same after PD engagement.

Method

An explanatory sequential mixed-methods research design (Creswell & Clark, 2011) was employed to combine both quantitative and qualitative data to provide an in-depth understanding of the nature of early childhood teachers and instructional aides' beliefs and practices about dual language learning. This approach allowed us to obtain initial quantitative results and then use a qualitative approach (i.e., focus groups) to further explain statistical outcomes (Creswell & Clark, 2011). The study employed two-phase explanatory sequential design:

Phase 1. Fifty-three early childhood teachers and 45 instruction-

al aides working with 3- and 4-year-olds were administered a survey pre- and post-PD engagement. Survey results were analyzed for statistical significance and guided the refinement of a semistructured focus group interview protocol used in Phase 2.

Phase 2. Two focus groups of early childhood teachers and instructional aides were conducted and audiotaped. Discussions were transcribed and analyzed based on themes within responses that explained both the statistically significant and neutral statements. Insightful data from qualitative analysis was connected to quantitative results to draw inferences.

Participants

The early childhood educators (teachers, instructional aides) in this study provided instruction to DLLs enrolled in two inclusive early childhood programs situated in a large urban area in the Southwest US. The children and their families represented more than 25 different languages. Participants were enrolled in six required PD trainings delivered by a partnering university.

Participants had a wide range of experience in working in early childhood settings. Forty-one percent of the participants had 0-5 years of experience in early childhood settings, 20% had 6-10 years and 11-15 years, and 18% reported having more than 16 years of experience. Only 20% of participants had completed any course work or training in working with DLLs.

Approximately 46% of the participants ($n=45$) reported varying levels of bilingualism. Participants spoke 12 different languages; however, 68% of bilingual educators reported Spanish as either their first or second language. There was a range of language and literacy proficiency among bilingual participants. Ninety-three percent of respondents reported bilingual proficiency in conversational skills, whereas 80% reported proficiency in reading and writing.

Professional Development

Based on the research related to DLLs, the researchers developed and delivered six consecutive three-hour PD sessions each month (e.g., Espinosa, 2013; García & Frede, 2010; Goldenberg et al., 2013; Nemeth, 2012; Worthington et al., 2011) aligned with NAEYC and Head Start position statements. The purpose of the PD sessions was to increase educators' knowledge related to the cultural, academic, cognitive, and linguistics needs of young DLLs. We aimed to support them in the adaptation of their classroom environment, curriculum, teaching, and assessment practices to better support DLLs within their current instructional contexts. The training topics included: (a)

language and literacy development of young dual language learners, (b) second language acquisition, (c) classroom environment, (d) instructional materials, (e) parent engagement, and (f) assessment. The role of the home language was included in each training topic. We addressed how both monolingual and multilingual teachers could support DLLs' continued home language development.

The PD learning opportunities were designed to be problem centered, have immediate relevance, and give participants the opportunity to practice (Knowles, 1984). During the PD sessions, case studies supported educators in the development of their problem-solving and critical-reflection skills in order to reexamine their current practices in light of new learning and experiences with DLLs. Each training consisted of the following components: (a) foundational theories, (b) real-world problem solving, (c) modeling of strategies and techniques, (d) peer interaction and reflection, and (e) hands-on lesson and material development. Participants implemented one technique after each training. Subsequent trainings began with reflections and discussions about the techniques implemented. Table 1 describes the PD components and provides sample activities conducted during the training.

Data Collection and Analysis

Quantitative data were collected through a pre- and postsurvey related to participants' beliefs and practices in working with young DLLs. The 5-point Likert-type survey measured EC educators' beliefs and practices around nine domains related to effective instruction for young DLLs: (a) second language acquisition, (b) instruction, (c) language and literacy development, (d) motivation, (e) environment, (f) language development, (g) family, (h) materials, and (i) assessment. The survey was administered immediately before the first training and at the end of the last PD. The Wilcoxon signed-ranks two-tailed test was used to determine differences between pre- and posttest rankings for each item on the survey.

Qualitative data were collected through two focus group interviews. Two focus groups were created with 5-6 participants in each group (Group A $n=5$; Group B $n=6$). The focus group consisted of at least one (a) monolingual native English speaker, (b) native English speaker who spoke another language, (c) teacher who identified herself as bilingual, (d) teacher whose primary language was not English, and (e) teacher who was not born in the US. Semistructured questions and prompts addressed teacher beliefs and practices in order to gain a better understanding of the quantitative results. Text excerpts from transcribed focus group discussions were synthesized to observe patterns and highlight meaningful entries.

Table 1
PD Sequence of Learning Activities

<i>Activity</i>	<i>Purpose</i>	<i>Example Activities</i>
Opening reflection question	To guide teachers to think about their current beliefs and practices related to the PD's objective	How might culture influence assessment outcomes for young DLLs?
Presentation of real-world problems	To frame the PD objective into practice To engage teachers in thinking about current challenges and how the knowledge and skills learned in PD will address those challenges	Present case study of young DLL with instructional goals in direct conflict with family beliefs and values.
Presentation on foundational theories	To provide teachers with the essential background knowledge related to the PD's objective	A brief presentation on the role of culture in assessment.
Connection of theory to real-world problem	To engage teachers in discussion of real-world problems in light of new knowledge	Return to case study. Discuss new insights based on new knowledge.
Modeling of strategies and techniques	To provide teachers with explicit instruction in delivering evidence-based practices as they relate to PD objective	Model for participants how to critique current assessment practices and results through the lens of culture.
Peer interaction and reflection	To provide teachers opportunities to practice new strategies or techniques and receive feedback from peers To engage teachers in reflective discourse in their new knowledge and practice	Provide teachers the opportunity to critique their own assessments.
Hands-on lesson and material development	To provide teachers the opportunity to develop strategies and techniques based on PD objective and evidence-based practices	Teachers develop accommodations, changes to assessments, and/or analysis to take culture into consideration.

Findings

Quantitative responses from the pre- and post-questionnaire helped to inform initial insight into changes in educator beliefs and practices related to the delivery of high-quality instruction to young DLLs. Specifically, quantitative analysis gave us insight into our first research question: *How do early childhood educators' beliefs and practices related to the provision of quality instruction for young DLLs shift after a series of PD trainings aimed at increasing their knowledge and skills through critical reflection and problem-solving activities?* Qualitative responses further explained factors that influence or hinder shifts in educators' beliefs and practices and supported our second research question: *What are other factors, beyond PD, that may influence the shifts in educators' beliefs and practices?*

Quantitative Findings

Beliefs. Researchers identified 10 belief statements within statistical significance ($p < .05$) between pre- and post-training conditions displayed in Appendix A. Effect sizes among pre- to post-belief shifts were small in measure according to Cohen (1988), but meaningful in relation to shifting educator beliefs. Statistically significant belief statements centered around (a) the role of the home language, (b) instruction that best supports DLLs, and (c) the role of family in instruction.

Practices. Results revealed nine practices statements at the $p < .05$ level of statistical significance between pre- and post-PD conditions displayed in Appendix B. As was found among educator shifts in beliefs, shifts in practices also resulted in small yet meaningful effect sizes. Statistically significant practices centered around (a) the use of the home language, (b) type of instruction, (c) opportunities for language use, and (d) the role of culture in learning.

Summary of Quantitative Findings

Role of the Home Language. Before PD, there was a strong belief that the child's home language should be displayed in print throughout the classroom and in learning centers. After training, however, beliefs about displaying a child's home language further shifted beliefs among educators. While the majority of participants were not bilingual, educators' beliefs about their role in supporting young DLLs' home language also shifted beliefs. Results indicated that educator beliefs that young DLLs can learn best from an adult who speaks their home language slightly shifted beliefs. Furthermore, educator beliefs that lessons taught in the students' home language should be a regular

part of classroom instruction indicated a belief shift in the post-training condition yet remained a neutral response.

Instruction That Best Supports DLLs. Beliefs about instruction for DLLs moved slightly from a remedial view of instruction to a more enriched approach from pre- to post-PD. Results indicated that educators' beliefs on the importance of language development through listening and the use of props to support and clarify language development slightly shifted beliefs in the posttest condition. Similarly, further results revealed that beliefs shifted toward disagreement that young DLLs learn best by memorizing and practicing language rules, yet indicated an overall undecided response. While beliefs shifted away from young DLLs' needing remedial instruction and short, simple sentences to learn English, the median remained within the *undecided* range.

Role of Family in Instruction. Results indicated a positive shift in educator beliefs related to the role of the family in the instruction of young DLLs. Home-school connections in building DLLs' second language proficiency represented a shift in beliefs. In addition, beliefs shifted toward *strongly agree* regarding the impact parental input can have on guiding instruction.

Use of the Home Language. Results indicated that there was an increase in beliefs about the use of the home language in educator practices. The intentional use of the home language by adults and children in the classroom shifted post-PD.

Type of Instruction. Results indicate that educator practices shifted toward providing an enriched, additive curriculum for their DLLs. Post-PD, statistically significant statements indicated educators use an enriched curriculum as well as evidence-based practices. Educators also indicated more intentionality in instructional decisions. Shifts in practices include posing higher-level questions to DLLs and developing lessons integrating oral language and literacy.

Opportunities for Language Use. Findings show that shifts in practices increased DLLs' opportunities to use language in the classroom. Practices that included opportunities for spontaneous language use by DLLs related to listening and speaking were statistically significant. Results also show a shift in educator practices in the intentional planning of learning experiences in which DLLs have opportunities for authentic language.

The Role of Culture in Learning. Results indicate practices shifted to include cultural artifacts representing their students' heritage into instruction. The statement *I include real or realistic materials in the learning centers that represent the children's culture* was statistically significant.

Qualitative Findings

Building from quantitative findings, we used qualitative content analysis from focus groups to further understand the neutral/undecided beliefs and practices, divergent beliefs and practices, and the variation in frequency/agreement within the same domain. We found that there are other factors beyond PD that influenced educators' beliefs and practices. The themes that emerged from content analysis were related to educators' empathy for students and families, availability and access to resources, and expectations.

Empathy. *Empathy* refers to the ability to understand and share the feelings of others. Educators demonstrated high levels of understanding the feelings of their students and their families. For example, some of the educators in the focus group grew up and continue to participate in bilingual communities while others were native English speakers raised and living in predominately monolingual communities. With all educators, however, their empathy played a significant role in influencing their beliefs and practices in providing high-quality instruction for young DLLs. In fact, educators demonstrated extensive empathy for DLLs and their families. Excerpts revealed that empathy influenced their beliefs about the importance of the home language regardless of their personal capacity to provide instruction in the home language. Educators spoke extensively about the importance of students and parents' feeling included in the classroom community and sought to infuse DLLs' culture and language within the classroom. In the excerpt below, a monolingual English-speaking teacher demonstrated empathy as she discussed the importance of young DLLs and their families feeling welcome and safe:

I hope that it helps to build up not just language, but also that comfort that I want them to have. I want them to start to feel that safe environment again, that feeling that we can just talk. It doesn't matter what I'm saying or how I say it, just to talk.

Educators also expressed worry over how students were perceived based on assessment results. Educators routinely expressed that they feared parents and students would view themselves as failures because the assessments measured only English development. As one educator noted, "They're not being assessed in their [home] language. It's not accurate. The data is not there, so they are setting the children up to fail." One educator, in speaking with a Spanish-only-speaking parent concerned about the child's English progress, shared the following: "It hurts the parents, but I am trying to reassure them that it's OK. Do

everything you can in Spanish, or tell the grandparents to teach her in Spanish. Hopefully in kindergarten she'll have a bilingual teacher."

Educators understood the value of assessments in DLLs' home and second language as a way to measure the child's progress. They also saw home language assessments as a way for young DLLs to increase confidence in their skills. Clearly concerned, a teacher expressed her frustration with assessing student progress only in English:

When I'm doing my embedded assessments or direct assessments, it's kind of frustrating to me as well because they [students] say part of it in English but the other part in Spanish. It's like you want to give them credit for those ones they know in Spanish because they're learning both languages at the same time. So they remember some stuff in English and some stuff in Spanish. It's frustrating to not be able to give them full credit.

Expectations. Educators' expectations of themselves and the expectations of the early childhood program administration influenced their beliefs and practices in the provision of high-quality instruction for young DLLs. Multiple educator excerpts highlight the consistent pull for educators between what they know and believe about high-quality instruction for young DLLs and the expectations of accelerated student learning that is measured in quantifiable results. As one teacher noted, "I was teaching letters under the slide. I was using direct instruction and I honestly think that is why they were there [scored well on the test]." Similarly, educators expressed a disconnect between the curriculum and what students needed to be ready for kindergarten. One teacher said, "I don't follow the curriculum—at all. I do the themes, but I really try to focus on the stuff that they will need to know in kindergarten or to be ahead."

Educators also worried about their reputation of being a high-quality educator in the preparation of young DLLs. They measured their reputations by preparing children for the kindergarten environment. Specifically, educators felt as though they were judged based on their ability to prepare young DLLs to be "ready for kindergarten." There was a strong feeling that the adopted curriculum in their early childhood center was a drastic mismatch with the instruction in kindergarten. The excerpt below illustrates educators' inner battle between what they believe is best and making sure their students are "ready."

The DLL children are not developmentally prepared to face kindergarten. When we went to the [kindergarten] classroom, they

have large groups, we were reading on the Smart board, spelling, and reading in English. But we had not had time to do that with our children because we're doing what the lesson plan says to do.

Availability and Access to Resources. The availability of and educators' access to resources influenced educators' practices in their delivery of instruction, specifically, their practices related to the inclusion of the home language. Educators had strong beliefs about the importance of the home language, yet some practice statements related to inclusion of home language in instruction, although statistically significant, remained somewhat neutral. Educators within the focus groups consistently viewed the lack of resources as barriers to carrying out their intended practices. These included lack of human capital, instructional materials, and time.

The lack of human capital was a theme that consistently emerged from the transcripts. While it is well known that there is a severe shortage of bilingual educators in the US, interestingly, the focus group educators did not stress increasing the number of bilingual teachers as much as they stressed the importance of quality bilingual teachers. The educators expressed that they believed in the importance of the home language and therefore wanted to embrace students' home language, but they also recognized their limitations in providing quality home language support as is evident in the following exchange between educators:

Teacher A: I'll try my very best to read them [books in Spanish], but when they start talking back and telling me all of these things, unfortunately I'm like, "Yeah, oh." I'll capture a word and I'll talk a lot about that one word, but it's like the materials ... it's good to have, but then you have to know how to use them.

Teacher B: I have experienced that. I was reading a book—*The Gingerbread Man*. I read it in English and then in Spanish because it was right underneath. So I read it in Spanish, too. But then I realized that I can pronounce the words correctly, but I can't comprehend that fast. So I'm not reading correctly, like in the right tone. You know, you are supposed to be excited at one point, or show sadness at another point. So I am basically mimicking what's being read. Bilingual educators would be great because they actually know what they are reading, and put more excitement into it.

Educators also noted that while they had the best intentions of incorporating students' home language through literature, the reality

of limited materials in students' home language was a significant barrier to their actions. One bilingual educator said:

And when you are trying to really service those children that need that extra assistance, there is no time or resources. And you have to come up with your own resources. In my classroom, I don't really have bilingual books. I am making my own books.

Note that while the educator was limited on resources, her drive to support her students led to creating her own books. However, she was further burdened by the lack of time. The available time to individualize, incorporate the home language, and create materials consistently emerged as a source of conflict between educators' beliefs and practices. The following exchange resulted when educators were asked about their thoughts on the gap between what we know is best for young DLLs and the actual instruction that is taking place.

Teacher B: There is a lot of work involved.

Teacher E: Not enough hours in the day.

Teacher B: So it's that extra bit that you have to do more work ... there's more work in a sense. I guess the time to translate the material to the home language and to make sure that nothing is lost in communication. And I think because in the program that we're in we have such high communication with our families, that it would be a lot of work to translate everything that we have, to each language that we have. Each classroom is different and then the program as a whole has a lot of communication that gets sent out. So, it'll be a lot of work.

Educators expressed a high level of frustration with time. They felt this constant pull between being able to do what they knew was best and the reality of their time constraints. Clearly agitated by her time constraints, one teacher noted, "And actually individualizing for them [DLLs]? And when do you really have time to individualize for your DLL students?"

The educators in the focus group sincerely worried about the influence of time on providing a quality education for their young DLLs. The following dialogue highlights the educators' internal battle between their beliefs and the constraints of time.

Teacher C: The thing that is the biggest struggle for me is that these are phenomenal programs. It is so amazing that our children have access to that, but it doesn't work.

Teacher B: It doesn't help us to do everything that we need to do because we have to do it all anyway. So it really doesn't help us teach our children what we are required to teach them, the curriculum that is set before us, in an effective way. We can try and do everything that we can possibly do and it's never going to be enough because we're never doing everything that we're supposed to do. And it doesn't matter how well you manage your time, or how well you don't manage your time. I always have to leave stuff out.

Summary of Qualitative Findings

Qualitative findings helped us better understand other factors that support or hinder shifts in educator beliefs and practices. We found that educators had high levels of empathy that propelled them to provide the best high-quality instructional environments for young DLLs despite their limited resources and capacity. However, the lack of resources consistently emerged as a barrier to practices. Finally, educators' expectations of themselves as well as the expectations of others (administrators, educator peers, directors) influenced their beliefs and practices.

Discussion

Although PD holds promise for improving educator learning and consequently shifting practices, the role of beliefs in instructional practices cannot be ignored. While PD is effective for increasing educators' knowledge and skills, this article contends that increasing educators' knowledge and skills via PD plays only a partial role in influencing beliefs leading to shifts in practice. The purpose of this study was to examine the influence of PD on early childhood educators' beliefs and practices and to further explore other factors related to shifting beliefs and practices. Although quantitative data suggest positive shifts in educators' beliefs and practices after PD, qualitative data further suggest that beliefs and practices are also influenced by empathy, expectations, and external factors. The influence of factors beyond the increase in knowledge on educators' beliefs and practices are exemplified in neutral/undecided responses, divergent responses, and variations in response to the extent to which the home language should be incorporated.

Empathy

As evidenced in the qualitative findings, educators' empathy played a fundamental role in their beliefs and practices. Evidence from focus group transcripts can explain the variation in responses

to the extent to which the home language should be incorporated into the classroom. For example, Figure 1 displays the statistically significant beliefs and practices related to the role of the home language in the classroom. It is important to notice that the statements move from *agreement/always* toward *disagreement/never*. This can be explained by the fact that educators empathized with students and families and understood the value of the home language, yet the majority of educators were not bilingual and regardless of their desire to support their students, did not have the language skills to include the home language regularly in their instruction.

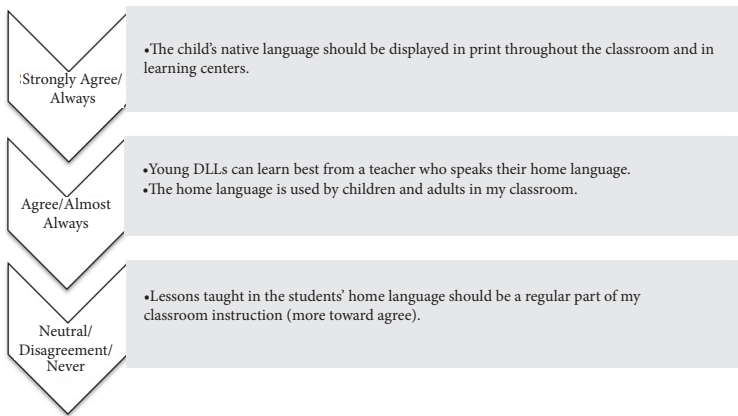


Figure 1. Statistically significant beliefs and actions related to the home language.

Expectations

Educators' expectations of themselves and the expectations of others (peer educators, administrators, directors) strongly influenced educators' beliefs and practices as evidenced in the qualitative findings. Expectations may explain educators' seemingly divergent beliefs and practices related to the type of instruction effective for DLLs. For example, Figure 2 displays the beliefs and actions found to be statistically significant. Note that significance was found for both enhanced and remedial approaches to instruction for young DLLs. External expectations for English development, assessment scores, and "readiness" for kindergarten consistently emerged in our qualitative findings. While educators acknowledged the role of the home language in children's cognitive, academic, and linguistic development, there was an underlying understanding from educators that their effectiveness was judged by student performance on English assessments and

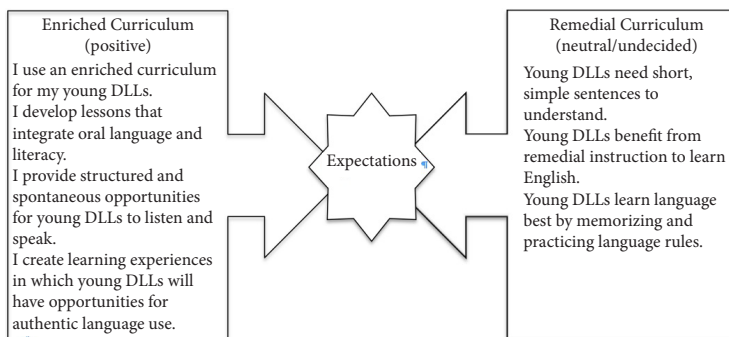


Figure 2. Divergent beliefs and actions.

success in kindergarten. What educators viewed as important in their young DLLs' learning (e.g., language development in both languages, problem-solving skills, social skills, higher-order thinking) did not necessarily align with how learning and effectiveness were measured (e.g., English rhyming skills, letter identification, isolated vocabulary measures). Relatedly, expectations may also explain neutral or undecided significant results related to DLLs' learning best by memorizing language patterns and through short, simple sentences as well as the variation in the extent to which the home language should be included in the classroom.

Availability and Access to Resources

Access and availability of resources may explain the variation in the extent into which the home language should be included in the classroom as well as responses that remained neutral or undecided. External factors may explain the willingness to include the home language at the superficial level (i.e., displaying the home language in the classroom), but neutral and negative responses at the personal or individual educator level. Time, limited resources, and human capital consistently emerged from the data as challenges to the implementation of the home language.

Both monolingual and bilingual educators discussed the importance of the home language's being displayed through print. The educators highlighted creative avenues in labeling classroom materials in the multiple languages of students through parent and community assistance, yet all educators also expressed the extensive time it took for these additional steps.

Limited access to resources was an external factor interrelated with time. The lack of resources in the home language put additional time requirements on educators. Educators recognized the impor-

tance of the home language in the classroom and instruction and the only way to provide those materials to students was to make them themselves. More concerning is the impact time had on the educators' view of the feasibility of incorporating the home language in their instruction. Repeatedly, the educators expressed concerns of meeting the basic requirements of the curriculum. Individualizing and enhancing learning through the home language seemed insurmountable.

Implications

As the number of DLLs enrolled in early childhood programs continues to rise, it is imperative that instructional practices shift to meet the needs of these young learners. Educators' instructional practices are not only influenced by their knowledge and skills, but by their beliefs as well as personal and external factors. As PD is the traditional mechanism for improving educator practices, teacher educators, PD specialists, and teacher trainers must examine PD opportunities through the lens of educator beliefs and personal and external factors that may hinder or support shifts in educator practice. PD opportunities should be differentiated, ongoing, and confront theoretical and pedagogical beliefs.

Differentiated Professional Development

Although the early childhood workforce is increasing in diversity, the reality is that early childhood educators will frequently not be of the same cultural and linguistic backgrounds of their students. It is important for all educators, regardless of their cultural background or language proficiency in the home language of their students, to be able to provide meaningful, high-quality instruction. We recommend differentiating PD for educators based on educators' language and cultural experiences. Specifically, PD experiences should be differentiated for educators who are bilingual/bicultural and monolingual/monocultural. Differentiated PD would allow educators to build upon their strengths to provide high-quality instructional environments for young DLLs irrespective of their own bilingual skills.

The Dual Language Learner Teacher Competencies Report (2012) highlights DLL teacher competencies based on a teacher's cultural experiences (monocultural, bicultural), language experiences (monolingual, bilingual), literacy experiences (biliterate), and years of teaching experience. The competencies are divided based on teacher characteristics (e.g., monolingual, bilingual) and highlight the skills and indicators related to each competency based on teacher characteristics. The rubric format of the document can serve as a guide for teacher development. Differentiating and targeting PD opportunities by language,

culture, and experience to address teacher competencies highlights how educators with differing capacities still are able to be effective with young DLLs (Lopez, Zepeda, & Medina, 2012). This differentiation has the potential to build teacher self-efficacy and belief in meeting the needs of DLLs.

PD That Confronts Theoretical and Pedagogical Beliefs

Our results indicated a consistent internal battle between what educators believed and what they practiced. Because of the critical role that educator beliefs play in the influence of their practice, PD opportunities should include ongoing opportunities for critical reflection in which teacher educators facilitate discussions and activities that force early childhood educators to confront their theoretical and pedagogical beliefs (Vartuli & Rohls, 2009). Similar to Breffni (2011), our PD was effective in influencing educators' knowledge and practice (i.e., displaying classroom print in the home language) yet less effective in shifting their beliefs (i.e., home language as a regular part of classroom instruction). Bilingual education, specifically the intentional use of the home language in instruction, is a controversial issue for many people. While educators' beliefs about the role of the home language in instruction did shift in a positive way, it is important to consider that educators may hold strong beliefs about home language instruction. Traditionally held beliefs are difficult to change and must be addressed explicitly and through critical reflection (Breffni, 2011; Isikoglu, 2007; Vartuli & Rhos, 2009).

Ongoing PD With Feedback

Ongoing professional development with consistent feedback will be instrumental in supporting and/or challenging educator beliefs related to shifting their practices (Breffni, 2011; Duran et al., 2009). Early childhood educators need high levels of support to shift practices, particularly when major policy changes require fundamental shifts in practices. The intensity and duration of PD should align with the extent to which practices need to be shifted (Zaslow, Tout, Halle, Whittaker, & Lavelle, 2010). Knowledge alone provides limited support for the integration of new knowledge into practice (Han, 2012). Early childhood educators need immediate feedback on the approaches and strategies they are implementing in the classroom. While this feedback can take on many forms, research on coaching models indicate positive shifts in educator practices that are sustained (Neuman & Wright, 2010). Program administrators should establish coaching models that best suit their particular context (Lloyd & Modlin, 2012).

Moving Forward

Although our PD model reflected elements of best practices in PD, it is clear much still needs to be done to create deep instructional change leading to improved outcomes for young dual language learners. PD must strive to address beliefs that are difficult to change. We must also find ways to address the personal and external factors influencing teacher beliefs and actions. Consequently, these factors have led us to an ongoing, collaborative model of PD.

Systemic Professional-Development Model

Data indicated that external factors (i.e., resources, expectations, time, human capital) played a central role in teachers' beliefs and actions in the classroom. As a result, our model of PD includes not only teachers, but also individuals with the power and resources to influence external factors (i.e., instructional leaders). We recommend that these individuals be school- and district-level administrators. Collaboration among teachers and instructional leaders to address barriers to change are critical.

We believe that deep change yielding shifts in teacher beliefs and ultimately practices requires an ongoing, multifaceted, and iterative approach to PD. Our PD model includes three core components: PD, guided reflection, and coaching (see Figure 3). Note the cyclical nature of the PD model. While collaboration between teachers and instructional leaders in our model is key, Table 2 highlights how each component of the PD model is differentiated based on instructional role.

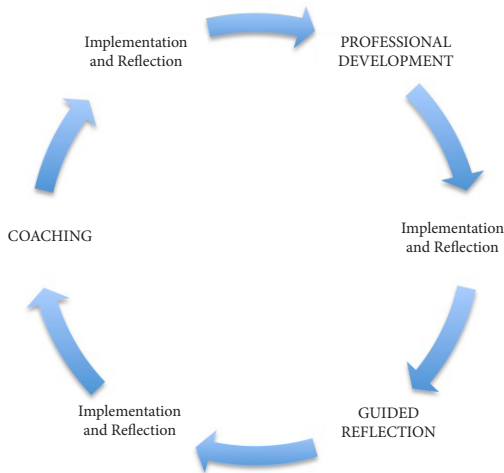


Figure 3. Ongoing, systemic professional-development model.

Table 2
Differentiated Foci Within the
Professional-Development Model

<i>PD Component</i>	<i>Instructional Leaders</i>	<i>Teachers</i>
Professional development	Knowledge of DLLs <i>Understanding and Evaluating</i> Best Practices	Knowledge of DLLs <i>Understanding and Implementation</i> of Best Practices
Guided reflection	Challenging current beliefs about themselves, teachers, DLLs, and their families Challenging their role in the success of teachers and DLLs	Challenge current beliefs about themselves, DLLs, and their families Challenge the alignment of knowledge, belief, and action
Coaching	Impact of policy and decisions on teachers and DLLs' success Their instructional coaching	Impact of instructional practices on student outcomes

Professional Development. Although PD is the starting point on our PD model, decisions regarding professional development should be based on need. Determination of need is a collaborative effort between PD participants and PD providers. Adults are more likely to learn from PD opportunities if they are engaged in the planning process and the PD has immediate relevance to their current situations (Knowles, 1984).

Guided Reflection. We define reflection as “a thinking process which gives coherence to a situation which is initially incoherent and unclear” (Clara, 2015). Although reflection is ongoing throughout the PD model, we include a targeted, rigorous guided-reflection component immediately after implementation of the PD. As teachers develop new knowledge during the PD, they will experience a period of dissonance. This period of dissonance occurs when new knowledge conflicts with previous knowledge. It also occurs as teachers are implementing new practices that may not align with previous ones. Often teachers struggle to reflect independently at deeper levels (Korthagen, 2001). This moment of guided reflection catalyzes teachers in confronting their beliefs early in the implementation process.

Coaching. Coaching after PD workshops increases the likelihood of successful implementation of learning and strategies (e.g., Milburn et al., 2015; Namasivayam et al., 2015). Teachers' beliefs heavily influence their ideas about practices that work, and those that do not work, in the classroom. This entanglement of beliefs and practices often presents barriers to implementing new practices. Coaching enables us to challenge beliefs within the context of their practice (Knight, 2007). Through partnering conversations between teacher and coach, beliefs and practices can be confronted through nonthreatening, collaborative problem-solving discussions (Thomas, Bell, Spelman, & Briody, 2015).

Conclusion

Although the PD provided during this study did in fact demonstrate significant changes in educators' beliefs and practices, we found multiple external influences that contributed to educators' belief systems and the practices that played out in their classrooms, specifically the expectations of program administrators and the access and availability of resources. The creation of high-quality learning environments and opportunities cannot rest with early childhood educators alone. Instructional leaders must understand how young DLLs learn and subsequently create corresponding support systems for students, families, and educators.

It is evident that ongoing, reflective PD with coaching is necessary for both teachers and administrators to create the conditions that allow for deep instructional change for young DLLs. Although PD does create the opportunity to develop knowledge and skills, it falls short in confronting the deeply held beliefs that serve as filters to decisions related to instructional practices. Ongoing opportunities for teachers to reflect and converse with others on their beliefs, thoughts, and challenges are essential for deep change.

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Appendix A Significant Belief Statements

<i>Belief Statement</i>	<i>Posttest Median</i>	<i>Z score</i>	<i>r</i>
Lessons taught in the students' native language should be a regular part of my classroom instruction.	3	-2.219*	.16
Young DLLs can learn best from a teacher who speaks their native language.	4	-2.940*	.21
The child's native language should be displayed in print throughout the classroom and in learning centers.	5	-2.809*	.20
Young DLLs need short, simple sentences to understand.	3	-2.442*	.17
Young DLLs benefit from remedial instruction to learn English.	3	-2.017*	.14
Young DLLs learn language best by memorizing and practicing language rules.	3	-2.404*	.17
Young DLLs develop language through listening.	4	-2.315*	.17
The use of puppets, dolls, puzzles, props, etc., should be used to support and clarify young DLLs' learning and use of language.	5	-2.038*	.25
Parental input helps to guide my instruction.	4.5	-2.779*	.20
Building the home-school connection influences second language proficiency in young DLLs.	5	-2.476*	.18

Appendix B
Statistically Significant Practice Statements

<i>Practice Statement</i>	<i>Posttest Median</i>	<i>Z Score</i>	<i>r</i>
The native language is used by children and adults in my classroom.	4	-2.022	.14
I use an enriched curriculum for my young DLLs.	4	-2.610	.19
I pose higher-level questions to my young DLLs.	4	-3.389	.24
I develop lessons that integrate oral language and literacy.	4	-2.307	.16
I use evidence-based practices to support DLL learning in my classroom.	4	-2.759	.20
I create learning experiences in which young DLLs will have opportunities for authentic language use.	4	-2.107	.15
I provide structured and spontaneous opportunities for young DLLs to speak.	5	-2.320	.17
I provide structured and spontaneous opportunities for young DLLs to listen.	5	-2.059	.15
I include real or realistic materials in the learning centers that represent the children's culture.	4	-2.912	.20