

RESEARCH ARTICLE

Building a Classroom Community that Supports English Learners in Preschool

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This study details the implementation and evaluation of a professional development (PD) intervention program in language and literacy for early childhood teachers using a mixed method, quasi-experimental study design. The program, *Supporting Children with Language Differences* (SPLD), was offered over a six-month period to 19 teachers in a federally-funded preschool program. The PD, incorporating instructional course sessions, classroom-based assignments, and onsite coaching, was designed to build teachers' capacity to promote the language and literacy development and learning of English Learner (EL) children in their classrooms. Results showed a significant positive effect of the intervention on preschoolers' oral language, receptive language, and pre-literacy skills. Moreover, the results of this study suggest that intentional inclusion of ELs in classroom activities and a sustained emphasis on the practices, strategies, and adaptations that support their inclusion may be the key to promoting ELs' language success in early childhood classrooms.

Keywords: early childhood; preschool; language learning; ELS

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It's ten o'clock on a weekday morning in a preschool classroom, and children are enjoying "choice time," moving among a variety of small group learning areas: dramatic play, blocks, art, writing, science, and the cozy classroom library. The teacher, Grace, has set out interesting materials and activities for children to use and talk about, and most of the children are excitedly engaged. Several children however—Maria, Gloria, and Aaron—seem to be on the periphery of the fun and learning. Maria stands next to the writing table and watches transfixed as two other girls draw and talk about their daddies. She scribbles briefly on a piece of paper and holds the paper up in front of the girls, as if trying to get their attention. When she gets no response, she throws the paper in the trash and walks away. When Grace takes some lemons and juicers over to the science table so she can help children make lemonade, Gloria quickly picks up a slice of lemon and pops it in her mouth. "Ew!" yell two other children. "That's gross!" Gloria spits out the lemon and starts to cry. Meanwhile, in the block area, Aaron has built a simple structure out of unit blocks. Another boy comes over and asks, "Hey, what are you making?" Aaron angrily pushes the boy away and loudly yells, "No!" (Composite excerpt from a literary coach's journal).

The number of children in pre-K to twelfth grade U.S. classrooms who speak languages other than English at home has risen by 60% over the past ten years (Ballantyne, Sanderman, & McLaughlin, 2008), and children like Maria, Gloria, and Aaron, referred to as English Learners (ELs), English Language Learners (ELLs), or Dual-language Learners (DLLs), now comprise almost 30% of the population of Head Start classrooms (U. S. Department of Health and Human Services, Administration for Children and Families, 2013). Not yet in Kindergarten, these children face challenges that will compromise their English vocabulary development, negatively impact their later reading ability and long-term literacy outcomes, and make them increasingly vulnerable to underachievement and dropping out as they approach the high school years (Ballantyne et al., 2008; Capps et al., 2005). Research also indicates that the literacy development of ELs is impacted by their oral language development in both English and their home language (Miller et al., 2006).

The need for high-quality language and literacy instruction in preschool is well documented (Dickinson & Neuman, 2006; National Early Literacy Panel, 2008). Indeed, research paints a clear picture of what preschool language and literacy instruction should look like, emphasizing oral language and extended discourse skills (Dickinson, 2001; Pellegrini & Galda, 1993), phonological awareness including rhyming, blending, and segmenting (Adams, 1990; Bryant, et al., 1990; Bus & van Ijzendoorn, 1999; Ehri, 1995; Ehri et al., 2001), sense of storybook language and vocabulary (Whitehurst & Lonigan, 1998; Hart & Risley, 1995; Kamil, 2004; Scarborough, 1998; Sulzby, 1994), knowledge about print and awareness of environmental print (Lonigan, 2003; Dickinson & Snow, 1987; Ehri, 1991; Harste, Woodward, & Burke, 1984), letter recognition ability (Adams, 1990; Foorman, Francis, Beeler, Winikates, & Fletcher, 1997; Scanlon & Vellutino, 1996; Snow, Burns, & Griffin, 1998; Vellutino et al., 1996), and emergent writing (Harste, Woodward, & Burke, 1984; Schickedanz, 1999).

In order to improve preschool instructional practices in language and literacy, there has been a concerted effort to promote intensive professional development (PD) in these domains. A review of early childhood PD programs found that PD which includes

specific learning goals for children, links educator knowledge and practice, and includes assessment as a tool for ongoing progress monitoring is more effective (Zaslow et al., 2010). Professional development also has a bigger impact when it is content-specific and integrates all aspects of teaching, including curriculum, instruction, and assessment (Darling-Hammond, 2012).

Children who are acquiring two languages, however, may have educational needs beyond those of monolingual children (Haager & Windmueller, 2001) whether they are learning two languages *simultaneously* (two languages are used with the child from birth) or *sequentially* (the second language is introduced at three years old or later, typically in Pre-K) (McLaughlin, Blanchard, & Osanai, 1995). According to Tabors and Snow (1994), sequential learners in particular may experience different stages of second language acquisition including *home language use* (child communicates using the home language regardless of whether it is understood), a *nonverbal period* (child is actively listening to the features and sounds of the second language and developing receptive vocabulary), *telegraphic or formulaic speech* (child uses words or syllables in the second language to stand for entire thoughts or sentences), and *productive language* (child uses the second language with increasing confidence and simultaneously explores its rules and structure).

In order to adjust their expectations and instruction to be responsive to the language needs of ELs, teachers need to understand the overlapping and flexible nature of these stages and the fact that all of them contribute positively to the second language learning process. Teachers also need to understand the relationship between first and second language development and recognize the diversity among their EL children in terms of their home language experiences (Espinosa, 2008). Teachers need to know for example that different EL children may understand and use a different set of words in each language and that moving back and forth between languages (code-switching) is a normal part of the second language learning process (Tabors & Snow, 1994). PD aimed at increasing the quality of EL teaching should communicate specific pedagogical strategies that promote a language-rich classroom culture, maximize EL children's opportunities to hear and use language, and address the specific language needs of individual EL children (Santos, Darling-Hammond, & Cheuk, 2012).

Most early childhood teachers do not have deep knowledge of EL language development, nor are they prepared to provide the types of English language supports ELs need: more explicit vocabulary instruction, more exposure to rich language, and more specific support for language in context (Dickinson & Tabors, 2001). Moreover, children like Maria, Gloria, and Aaron need direct support to enter actively into the life of the classroom and to develop the types of social relationships with their English-speaking peers that promote language learning (Lindholm-Leary & Borsato, 2007; Tabors, 2008).

While researchers have demonstrated the potential of intensive, sustained professional development (in contrast to episodic training) to improve teacher instruction and classroom environments (Gettinger & Stoiber, 2008; Grace, et al., 2008), evidence suggests that it may be easier to change concrete aspects of the environment (such as increasing the number of discrete literacy activities) than to promote changes in teachers' instructional strategies (Dickinson & Caswell, 2007).

Early childhood teachers are a diverse group who come to the work with a wide range of knowledge and skills. Effective PD recognizes the self-motivation and capacities

that adults bring to the learning experience (Dickinson & Brady, 2006) and the role of collaboration in teachers' construction of knowledge (Lave & Wenger, 1991; Wenger, 1998). Effective PD also respects the dynamic relationship between theory and practice, and it harnesses the authentic power of the classroom as a context for bridging the two (Webster-Wright, 2009).

Incorporating coaching into PD has the potential to play a significant role in supporting instructional change. When it is content-focused and collaborative, coaching fosters teachers' pedagogical skills (Appleton, 2008) and supports their capacity to reflect on children's learning and their own teaching (Neufeld & Roper, 2003), particularly when the coaching consists of iterative cycles of implementation, collaborative reflection, and fine-tuning of practice (Darling-Hammond, 2012; Snow, Griffin, & Burns, 2005). When coaches facilitate teacher reflection that emphasizes teacher action and inquiry, teachers are more likely to refine their practices, identify their own growing edges, try new strategies, and address teaching challenges proactively (Ball & Cohen, 1999). Coaching may be particularly effective for early childhood teachers, since it is implemented with small groups and individual teachers and is therefore responsive to the wide range of teaching knowledge and skills typically found in early childhood programs (Landry, 2009; Onchwari & Keengwe, 2008).

This study examines the effectiveness of a PD program—including a course and onsite reflective coaching—designed to build teachers' abilities to support the language and literacy learning of EL preschoolers. The program incorporates the use of research-based language-teaching practices and strategies, and it emphasizes the role of children's social interaction and on-going formative assessment in fostering EL children's language and literacy development and learning. This study draws upon quantitative and qualitative data collected during the course of the program, including a qualitative case study meant to illustrate the program as enacted and to reveal the complexities of language teaching and learning in a preschool classroom. We investigate two overarching research questions:

1. Does a prolonged research-based PD program that includes on-site coaching and reflective practice, and provides on-going assessment, improve the quality of teachers' instructional strategies that support language and literacy development for ELs?
2. Do EL children in classrooms whose teachers receive the PD have greater gains in their language and literacy skills than children in comparison classrooms?

METHOD

Overview

Based on the literature, we designed a multifaceted three-year professional development intervention in language and literacy for early childhood teachers. All three years included one-to-one coaching for all participating teachers for the full school year. The goal of the first year of the program was to create high-quality classroom language and

print environments that provided all children with optimal language and literacy learning opportunities. The current study was conducted during the program's second year as we implemented *Supporting Children with Language Differences* (SPLD), a two-credit course delivered in three full-day sessions over a six-month period. SPLD reinforced the ideas introduced in the first year of the PD and presented additional practices and strategies targeted at supporting ELs' language and literacy development. Coaches, as well as teachers, attended the instructional PD sessions during both years.

In order to evaluate the effectiveness of the SPLD PD on teachers' language and literacy practices and children's language and literacy learning, we conducted a mixed-methods, quasi-experimental study. The methodology in this study involves integrating quantitative and qualitative data collection and analysis within a single study or program of inquiry (Creswell et al., 2003). The use of qualitative and quantitative analyses expands both the breadth and the depth of our understanding of teachers' language and literacy instructional practices as they relate to ELs' language and literacy development.

Participants

In an effort to promote a community of practice among participating educators, we partnered with a Head Start program from a large urban district in the Northeast and recruited teachers from the program's five centers to take part in the three-year PD program. Our goal was to maximize the participation of lead teachers in full-day classrooms, and the final sample of participants included 19 lead teachers in full-day classrooms, three assistant teachers, and five education managers, one from each of the Head Start program's five centers. Throughout the three years of the program, intervention teachers used *Opening the World of Learning; OWL* (Schickedanz & Dickinson, 2005), a research-based curriculum that was selected because of its rigorous scope and sequence, evidence-based instructional strategies, and close alignment with the language and literacy emphasis of the PD.

Comparison classrooms were recruited from three other Head Start programs in nearby urban communities; all comparison teachers were lead teachers in their classrooms. This was a "business as usual" comparison condition. Comparison teachers were not offered the language and literacy PD or any additional strategies for working with ELs. Both the comparison and intervention programs serve economically disadvantaged families (at least 90% of enrolled families are at or below the federal poverty level) that are racially and ethnically diverse. There were 16 comparison teachers that agreed to allow the researchers to observe their classroom practice and assess their preschoolers. Teachers from the comparison classrooms used *The Creative Curriculum® for Preschool, 4th ed.* (Dodge, Colker, & Heroman, 2002), which according to the authors addresses the latest education research, best practices, and needs of individual learners.

Incentives were given to both intervention and comparison classrooms in the form of materials purchased for participating classrooms. In addition, teachers in SPLD received stipends for time spent at course sessions, since these were scheduled outside of regular work hours. Teachers also received two college-level credits from a neighboring institution of higher education for successful completion of the course.

While SPLD teachers had higher levels of education, on average, than comparison teachers—26% of SPLD teachers had an AA and 74% had a BA or higher, compared to 9% of comparison group teachers with a high school diploma, 41% with an AA and 50% with a BA or higher—the two groups were comparable in terms of early childhood experience, both averaging approximately 13 years in the field. For research purposes, the ELs were identified as children whose parental consent forms indicated that the child spoke a language other than English in the home, information that was then confirmed by the child’s teacher. A total of 33 different languages were spoken by children or in children’s homes, including Spanish, Portuguese, Russian, Farsi, Arabic, Italian, Fanti, Igbo, Polish, Creole, and Twi. In the fall, 181 children from the 19 SPLD classrooms and 73 children from the 16 comparison classrooms were identified as ELs. In the fall, the average age for EL children in SPLD classrooms was 48.0 months ($SD = 5.9$) and the average age for EL children in comparison classrooms was 52.5 months ($SD = 7.0$).

Procedure

Data collection. As mentioned above, this study utilized a mixed-methods approach. Qualitative data, collected from the intervention group, included a case study of one teacher and information provided by teacher and education manager focus groups. In addition, quantitative data were collected from teachers and students from both the treatment and comparison groups. Details about data collection procedures follow.

Qualitative case study. We approached the case study from the perspective of Cochran-Smith (2013) and her suggestion that “we need researchers who can get at the nuances of the work of teaching and learning” (p. xi), because “teaching [is] unforgivingly complex, not simply good or bad, right or wrong” (p. x). Similar to Mitton Kukner and Murray Orr (2015) we tried to understand the “multiple realities” (Creswell, 2007, p.16) of teachers’ experiences as they developed and refined their language and literacy teaching practices with an emphasis on ELs. To illustrate the key concepts of SPLD, we conducted a qualitative case study of “Grace,” a teacher participating in the SPLD course who was strongly committed to infusing her instructional practice with language and literacy enrichment strategies and engaging ELs in all aspects of the classroom community. This case study is based on the field notes, classroom observations, reflective conferences, and other coaching communications of the language and literacy coach who worked with Grace during all three years of the program, including the SPLD school year. Grace was the preschool teacher of “Maria,” who was learning English in a typical preschool classroom.

Qualitative focus group data collection. Teachers and education managers in SPLD participated in separate focus groups at the end of the school year. In order to triangulate the data, the same semi-structured interview questions were asked of both groups. These data were transcribed by a research assistant and qualitatively coded to capture the key themes, categories, and concepts related to teachers’ instructional practices.

Quantitative data collection. Teachers' instructional strategies and their language and literacy practices were observed twice per school year, once in the fall and once in the spring, by a team of data collectors who were blind to classroom condition and blind to the study's hypothesis. Each observation session began after children arrived at preschool (around breakfast) and concluded after lunch (before naptime). Child data were collected in the fall and spring for all children whose parents agreed to participate in the study by a separate team of data collectors who were also blind to study condition and had not observed teachers' instructional practices. Data were collected in two testing sessions so as not to over-burden the preschoolers; each session lasted approximately 30 minutes.

Quantitative measures. We used one classroom observation tool, the *Early Language and Literacy Classroom Observation Pre-K Tool* (ELLCO Pre-K; Smith, Brady, & Anastasopoulos, 2008) to assess the language and literacy quality of intervention and comparison classrooms. We assessed children using four measures including the *preLAS 2000* (Duncan & DeAvila); the *Preschool Language Scale, 4th ed.* (PLS-4; Zimmerman, Steiner, & Pond, 2002); the *Phonological Awareness Literacy Screening* for preschool (PALS Pre-K; Invernizzi, Sullivan, & Meier, 2001); and the *Peabody Picture Vocabulary Test-4* (PPVT-4; Dunn & Dunn, 2007). In addition to informing the research, data from these standardized assessments were selectively shared with the teachers, coaches, and five education managers for formative assessment purposes. This process will be described in greater detail below.

Teachers' instructional strategies. Classrooms were observed by trained data collectors who were blind to the study condition using the ELLCO Pre-K, an observational tool that examines the quality of language and literacy practices and materials in early childhood classrooms. The ELLCO Pre-K is designed specifically for early childhood settings, focusing on important pre-literacy activities like storybook reading, circle time conversations, and child-originated story-writing. The tool examines 19 items in 5 critical areas: *Classroom Structure, Curriculum, Language Environment, Books and Book Reading, and Print and Early Writing*. In addition, the ELLCO produces subscale scores in *General Classroom Environment* (composite of Classroom Structure and Curriculum) and *Language and Literacy* (composite of Language Environment, Books and Book Reading, and Print and Early Writing) and an *ELLCO total score*.

Classroom observers participated in a three-day training run by the ELLCO co-author who is also a co-author of this study. After the training, observers with a weighted Cohen's kappa score lower than .70 participated in additional observations and training until they reached an acceptable level of inter-rater reliability. In addition to the initial training, and prior to each data collection period, all returning observers participated in reliability checks, which included joint classroom observations followed by the calculation of inter-rater reliability, to ensure reliability among all individuals conducting ELLCO Pre-K observations. All completed ELLCO Pre-K observations were reviewed by the researchers to ensure that data collectors were collecting adequate evidence, and to confirm that the evidence corresponded with the scores assigned to each item.

Children’s language and literacy knowledge. EL children were first assessed on the *preLAS 2000*, a language screener used for 4–6 year-old children that provides an assessment of oral English language speaking ability. The oral language subscale provides a range of scores from 0–100 and a corresponding proficiency score of 1–5, where 1 is a non-English speaker, 2–3 corresponds to a limited English speaker, and 4–5 is a fluent English speaker. Children were also assessed on the auditory comprehension subscale of the *PLS-4*, a norm-referenced assessment of receptive language skills that provides insight into children’s comprehension of English but does not require them to produce oral language. The *PALS Pre-K* was used to assess children’s fundamental literacy skills including *Letter Knowledge*, *Beginning Sounds* and *Print Word Awareness*. Finally, the *PPVT-4*, a norm-referenced assessment, was used to assess receptive vocabulary in English.

Data sharing. As part of the intervention, the research team provided program administrators and education managers with formative evaluation feedback to inform the implementation of ongoing curricular activities. In addition, classroom data and individual child-level data were shared with each teacher and her coach semi-annually (fall and spring) for the purposes of improving classroom practice and tailoring instruction for individual ELs. More detail about how data were used as part of the intervention is provided below under the heading, “*Standardized assessments.*”

Professional development intervention. The SPLD intervention focuses specifically on promoting effective language and literacy instructional practices targeted at preschool EL children so that they will be prepared to benefit from the formal reading instruction that begins in kindergarten (August & Hakuta, 2007). The intervention educates teachers about the process of second language acquisition and supports their knowledge and skills in engaging and working with the significant numbers of EL children in their classrooms. SPLD’s approach is based on three fundamental and interconnected ideas:

- conducting thorough language assessments is key to developing a responsive language curriculum for ELs,
- implementing specific language support strategies intentionally throughout the classroom day sets the stage for EL language development, and
- grouping children intentionally maximizes opportunities for ELs to hear and use language in context by engaging them in classroom activities.

The SPLD program as enacted in this study consisted of three integrated components: three full-day sessions of college-level coursework over six months, classroom-based assignments, and weekly on-site coaching. The assignments required teachers, with the support of their coaches, to implement new practices and strategies introduced in the sessions with specifically-chosen “focus” EL children in their own classrooms.

Reflective coaching component. Five coaches were selected based on their educational backgrounds (all had master’s degrees in education or a related field) and

their previous experience working with, or coaching, early childhood teachers. Four coaches remained with the program for all three years and one coach left and was replaced before SPLD began. Initially, coaches were steeped in a reflective approach to coaching, and throughout the duration of SPLD, coaches met regularly to reflect collaboratively with the SPLD instructor on their work with teachers.

Throughout the SPLD year coaches worked with teachers using an iterative observation and reflective conferencing cycle as teachers implemented SPLD practice-based assignments in their classrooms. Coaches visited and observed teachers working with their “focus” EL students and video-recorded teachers facilitating language-based activities and using language-support strategies introduced in the SPLD course sessions. After each video-recording, the coach and teacher watched the video separately and then met for a joint viewing and analysis. Coaches facilitated teachers’ close observations of children’s language and behavior in the context of the SPLD instructional activities and strategies teachers were implementing. They helped teachers identify evidence of children’s language development and learning and reflect on the effectiveness of their own teaching. Finally coaches supported teachers’ planning of follow-up language activities and strategies that would continue to bolster children’s learning and promote teachers’ ongoing inquiry into children’s learning. In addition, coaches supported teachers’ use of data from family interviews and standardized assessments to further inform their individualized planning for ELs.

SPLD was designed to support teachers in integrating three practices—*collecting and using language assessment data from multiple sources*, *implementing language support strategies*, and *grouping children intentionally*—into all aspects of the classroom day. Teachers were encouraged to use these practices to *adapt classroom activities* to meet the needs of ELs. The PD focused on adapting two typical preschool activities—*dramatic play* and *book reading*—and introduced an adaptation to the grouping idea—*Language Helpers* (Hirschler, 2001)—that would enlist EL children’s peers as active supporters of ELs’ language. We focused on adapting these activities in particular because of their great potential to support ELs’ engagement in classroom activities, increase their social interaction, and promote their English language development.

Collecting and using assessment data from various sources. Although ongoing individualized assessment is well-recognized as best practice in preschool classrooms, there is a tendency for teachers to generalize about the language abilities of their EL children (Espinosa & Lopez, 2007). The SPLD instructor stressed the importance of considering assessment information from a variety of sources in planning language experiences for groups and for individual EL children. At the first PD session, instructors facilitated discussions with teachers about three primary sources of assessment data: *family interviews*, *teacher observations*, and *standardized assessments*. Assessment data from these sources were then collected and analyzed with the help of the teacher’s coach.

Family interviews. Instructors introduced a family questionnaire adapted from Patton Tabors (Tabors, 2008) to help teachers get information from families about children’s language use, and to reinforce the idea that families are a valuable and often untapped source of information about their children’s skills. This instrument includes

prompts such as “What language or languages do you use to talk to your child?” “Who else does your child spend time with besides you?” and “If English is not your home language, please estimate how many English words your child knows.”

Teacher observations. The instructor in SPLD asked teachers to explicitly observe and document the specific words and phrases that their focus EL children understood, used, or repeated throughout the day using the *Observing Children Learning English* (OCLE) observation tool, adapted from Tabors (2008). By dating each word or phrase according to *when* they heard it, teachers could establish a language baseline for each child and a portfolio of the child’s language learning over time.

Standardized assessments. Assessments of children’s receptive vocabulary, oral language, and emergent literacy skills and of teachers’ instructional practices were implemented in the fall before the beginning of the PD and in the spring after the PD had been completed. The data from these assessments were used to evaluate the effectiveness of the PD. They were also used formatively in feedback sessions as part of the SPLD intervention. In order to prepare the SPLD teachers and coaches for the feedback sessions, researchers first fully described the ELLCO Pre-K and each of the standardized child language and literacy assessments in a group meeting. Feedback was then presented individually to each SPLD coach-teacher team after each assessment period. Feedback on teachers’ instructional strategies as assessed by the ELLCO Pre-K was provided orally to each teacher and included areas of strength and areas for growth; however, teachers were not given their actual individual ELLCO scores. Feedback was provided this way in order to avoid comparison of scores among teachers and to ensure that data would not be used for making personnel decisions. Child data were provided, shared, and interpreted with individual teacher and coach teams by a member of the research team. Coaches then supported each teacher’s use of the data to individualize instruction for EL children. In addition, aggregate classroom and child outcomes were shared at the end of each intervention year with education managers, teachers, and coaches as a group.

Implementing specific language support strategies. Teachers were assigned readings in Patton Tabors’ (2008) book, *One Child, Two Languages*, which was used to reinforce the SPLD course content. During the first session of SPLD, instructors encouraged participating teachers to begin using the following support strategies (Tabors, 2008) with EL children immediately:

- Adjust language to meet the needs of the child.
- Restate and reframe comments and questions.
- Provide definitions in context.
- Scaffold oral language with pictures, props, and body language.
- Interpret understanding from behavior and provide relevant vocabulary.
- Follow up to check for understanding.
- Increase the complexity of your own language as child is ready.

Although these strategies are applicable to teachers’ work with all young children, instructors emphasized that they are especially critical for ELs. They support language

development directly, make learning activities more accessible, and scaffold participation in the social life of the classroom. These teacher/child language interactions also yield valuable assessment information about EL children's growing language abilities.

Grouping children intentionally. During the SPLD course, the instructor suggested ways of grouping children that would potentially increase child-child social interactions and support ELs' language development. These strategies included (a) considering language assessment data in decisions about how to group children, (b) pairing and grouping EL children with temperamentally compatible children (including fluent English speakers) during learning activities, and (c) shifting activities like book-reading (typically done with children in large groups) to smaller groups whenever possible.

Social development is a major focus in quality preschools, and teachers were encouraged to think and talk about how children's social interactions might also impact their language development. Peers provide "comprehensible" input for ELs, since the language they use is usually linked to the immediate context and is more direct and simple than the language used by adults (Krashen, 1981). The instructor supported teachers to think about groupings that would increase opportunities for EL children to engage in conversations, stimulate their child-child interactions, and promote a sense of community among *all* the language learners in the classroom, including ELs.

Adapting activities—Dramatic play supports. Research indicates that teacher-child conversations are an important part of language development, particularly when child-talk predominates (Dickinson & Tabors, 2001). Dramatic play scenarios provide the concrete and familiar props that EL children need as scaffolds. The teacher can introduce sets of related words, use complex language to describe children's play behaviors, and extend language by connecting the play to children's everyday experiences. In the SPLD course, teachers were introduced to specific adaptations for supporting dramatic play conversations from the *inside* and the *outside* (Hadley, 2002). When the teacher supports play from the inside, she takes the role of a character in dramatic play. Supporting play from the outside allows the teacher to act as stage manager. She supplies materials, ideas, and information to enrich children's play and language, but she isn't tied to a role in the scenario herself.

Adapting activities—Book reading. Book reading has the potential to provide exactly the type of mutually reinforcing language, cognitive, and social supports that EL children need. A compelling story is a rich source of interesting new words, and it has the potential to provoke children's thinking and make language connections to personal and shared experiences. SPLD's primary adaptation of the book reading routine included reading the same book multiple times, with the teacher planning each reading based on an analysis of the previous one. Coaches collaboratively planned the readings with teachers, and they analyzed each reading together using video-recorded observations. Over the course of four readings the teacher was encouraged to:

- initiate discussion of increasingly challenging words and language,
- support deeper conceptual understanding,

- group children to maximize interaction, and
- gradually transfer responsibility for “reading” the story to the children.

Adapting activities—Language helpers. “Language Helpers” is a type of peer coaching based on the idea that even very young children can be taught to support the language use of their EL peers intentionally by initiating play and conversation, and by adjusting, restating, and reframing their words if they sense they are not being understood (Hirschler, 1994). Teachers were encouraged to select language helpers based on children’s levels of social maturity and their interest in interacting with other children, as well as their English language fluency. The concept of “language helper” builds on and extends the *grouping children intentionally* concept. The teacher actively coaches designated language helpers to initiate and maintain contact with their EL peers by using body language, asking questions, checking for understanding, and waiting for responses.

RESULTS

As stated in the introduction to this article, our study was guided by two overarching research questions:

1. Does a prolonged research-based PD program that includes on-site coaching and reflective practice, and provides on-going assessment, improve the quality of teachers’ instructional strategies that support language and literacy development for ELs?
2. Do EL children in classrooms whose teachers receive the PD have greater gains in their language and literacy skills than children in comparison classrooms?

Table 1 below, lists the different sources of data used for this study and shows which research question(s) each one was intended to address. In the remainder of this section, we describe the results obtained from each measure and relate them to the corresponding research question(s).

TABLE 1
Study Data Sources and the Research Questions They Address

Data source	Research question	
	1	2
Qualitative case study	X	X
Qualitative focus groups	X	
ELLCO Pre-K	X	
<i>pre</i> LAS 2000		X
PLS-4		X
PPVT-4		X
PALS		X

Qualitative Case Study: Grace and Maria

Field notes, classroom observations, reflective conferences, and other coaching interactions from three teachers were read, re-read, and inductively analyzed (Creswell, 2007). The data were then coded for teachers’ willingness to infuse their instructional practice with strategies to engage ELs in the classroom and for the degree of alignment of their current teaching with the key components in the SPLD course. Grace was chosen as an illustrative example of a teacher who was strongly committed to infusing her teaching practice with new strategies to engage ELs and whose practice was well-aligned with the intended pedagogy of SPLD. The data from Grace’s coach were then reviewed and summarized and are presented below as a case study that addresses our exploration of both research questions. In relation to Question 1 it provides an in-depth look at the types of learning experiences in which EL children in SPLD classrooms were engaged and some of the ways in which SPLD strategies were enacted in classrooms. In relation to Question 2 it paints a detailed picture of one child’s language and literacy development over time that augments the quantitative results.

The case study of Grace and her focus EL preschooler, Maria, is presented chronologically in an effort to illustrate how Grace’s EL teaching progressed over time in concert with her learning in SPLD. The case study also illuminates the relationship between Grace’s evolving practice and Maria’s language and literacy development. We have summarized the key components of the intervention as they were enacted by Grace throughout the school year (see Table 2).

TABLE 2
Overview of the Strategies Grace Employed with Maria Throughout the School Year

September	October	November	December	January	February	March
First coaching meeting	Review of standardized assessments	Implementing language supports	Grouping children intentionally	Adapting dramatic play	Adapting book reading	Language helpers
Family interview		Grouping children intentionally	Adapting dramatic play	Adapting book reading		
Teacher observation						

September

First coaching meeting. In her first coaching conference, Grace mentioned that one of her EL children, Maria, “talks all the time, is very happy, and has lots of friends” and that she didn’t think Maria would be an appropriate focus child for SPLD. However, Grace also revealed that she often had to remind Maria of the classroom rules, and that she had observed other children saying, “No, Maria!” and moving away from her

during choice time. Maria was also “inattentive” at the large-group circle time and often distracted other children. After discussion with her coach, Grace agreed that it would be interesting to collect more evidence of Maria’s language and social relationships.

Family interview. Grace arranged a meeting with Maria’s mother, relying on a Portuguese-speaking colleague to translate. She learned that Maria’s family spoke primarily Portuguese, her afterschool babysitter spoke primarily Spanish, and her only exposure to English outside of the classroom was from television and occasional conversations with her brother. Grace was surprised to realize that the classroom was Maria’s only English language environment.

Teacher observation. Grace and her coach watched a video that had been taken of Maria during dramatic play. Although Maria didn’t directly interact with the other children, she did play alongside them. She also used the phrases, “Put it,” “C’mon,” and “Take it out” with an adult volunteer. Grace added these words and phrases to a list that already included “my shirt,” “I put it here,” “good morning,” “you my friend,” “corn,” “milk,” and some color names including pink, red, and blue. Documenting Maria’s receptive vocabulary and the words Maria *understood* was more challenging for Grace, and she and her coach talked about the importance of observing Maria’s behavior to assess whether or not she knew a word’s meaning.

October

Standardized assessments. Grace learned that Maria’s vocabulary was below the fifth percentile for other children her age. In addition, her oral language ability indicated a score of “1,” equivalent to a “non-English speaker.” Grace was surprised by the information she had obtained from Maria’s mother, her own observations, and Maria’s scores on the standard language assessments, and she decided to work closely with Maria as a focus child in SPLD.

November

Implementing language supports. Grace described the steps of a structured science activity for Maria, showing her how to squeeze a plastic bottle to test moving a variety of small objects with air. When Maria couldn’t get air out of the bottle, Grace said, “You have to squeeze the bottle harder,” and demonstrated by squeezing her hands into fists. “Squeeze means to press.” Grace then placed each object one by one in front of the bottle, named it, and invited Maria to try to move it by pointing to it and saying, “Try to move the rock by squeezing the bottle. Does the air push the rock?”

During their conference her coach acknowledged Grace’s use of several language strategies and asked her why she hadn’t asked Maria to draw a picture of the results of the experiment as she had asked other children to do. Together the coach and Grace agreed that Grace would continue to use clear, short sentences, define words in context, supplement verbal definitions with body language, and follow up with Maria to check for

understanding. Grace also planned to take advantage of opportunities for Maria to create drawings or documentation that could be used as props for language and to pair Maria with compatible English-fluent peers in subsequent activities.

November and December

Grouping children intentionally. Grace paired Maria with multiple children; below are some examples of the interactions Maria had with her fellow preschoolers.

Germaine. Maria and Germaine made “telescopes” with unifix cubes. Maria repeated the word “telescope” after Germaine and used the sentence “I making telescope.” She also used the longest phrases the coach and teacher had noted up until now, “That little piece for me put it” and “I no like no brother. Love you.”

Kaneisha. Maria and Kaneisha made “oobleck” (liquid starch and glue) together. Kaneisha showed Maria what she was making, and that stimulated Maria to ask, “For your mommy or for your daddy?” When Kaneisha and the teacher joked back and forth “Who made the mess?” “You made the mess!” “No, you made the mess,” Maria repeated and played with their words, saying to herself, “You made the mess. No, you made the mess. Big mess. You made it the mess. You guys made the mess, big mess.”

Terry. Maria and Terry looked at books together. When Terry began reciting her story, Maria imitated her saying, “Pooh said....” When the teacher was looking for a specific book, Maria said, “I no put it. Terry put it.” When the teacher responded, “Terry put it in the library?” Maria said “I think,” and “Miss B. Look. I reading Terry.”

Ashley. Maria and Ashley used the computer together, and Ashley pointed out the names of items on the screen and described what was happening. During one story, Ashley said to Maria, “He’s under the rug see?” and “He’s sneaking under the rug.”

During her reflective conference, Grace noted Maria’s growing expressive vocabulary (mess, piece, big, time, read/reading, like book/books), the words she was repeating, the increasing complexity of her sentences, and her even faster growing receptive vocabulary. Grace also shared *Our Classroom Friendship Book* that Grace had made with Maria to document Maria’s emerging social relationships. Grace commented that she had observed Maria leafing through it, pointing out her friends, and saying their names.

December and January

Adapting dramatic play. During restaurant play with a small group, Grace supported the dramatic play by taking part in the role-play and supporting the play from the *inside*. Grace said, “I’d like Maria to be my waitress. Will you take my order, Maria?” Planned vocabulary included the names for table items (plate, bowl, napkin), words for appliances (stove, refrigerator, sink), kinds of food (salad, meat, vegetables, dessert), and action words like set, serve, place, and order. Grace reframed sentences to provide definitions for new words. For example, she said, “Maria, are you going to set the table now? Are you going to put the plates and cups on the table now?” She also built sentences around the familiar word “corn” by saying, “Maria is getting the corn out of the

cabinet,” “Maria is serving the corn,” and “This corn is delicious!” Grace maintained her customer role as Maria explored different roles, alternating from waitress to cook to customer saying, “I hungry too!”

In her coaching conference, Grace and her coach wondered whether Maria would get a deeper language experience if Grace encouraged her to stick with a particular role. They also talked about ways that Grace could reinforce and extend Maria’s “restaurant” words and language by using them when Maria helped set the classroom tables for lunch.

During a unit on families, Grace supported play from the *outside*. She brought new baby items to the dramatic play area, named and described each item, and talked about how Maria and Claudia might use them. She showed children a small terrycloth bathrobe and encouraged them to touch it, saying, “This is the baby’s bathrobe. Isn’t it soft?” “Like my kitty soft,” responded Maria. Grace acknowledged Maria’s comment and then suggested Maria put the bathrobe on the doll “to keep her warm and dry.” “Make baby cry,” said Maria. “Wah wah.”

During her next reflective conference, Grace and her coach talked about how Grace’s intentional choice of items, along with her suggestions for using them, invited the children to engage in more complex play and use more language. Her coach pointed out to Grace that it was clear Maria understood what *soft* meant because she had compared the softness of the baby’s bathrobe to the softness of her kitty. She suggested that Grace consider other ways to help Maria make connections between new words, such as *warm* and *dry*, and familiar concepts.

January and February

Adapting book reading. Grace facilitated four small group readings of *Max’s Dragon Shirt* (Wells, 1991), a story about a young rabbit named Max who goes shopping for new pants with his older sister Ruby. Max falls asleep while Ruby tries on dresses, and then gets lost looking for her. In the meantime he discovers a “dragon shirt,” puts it on, and spills ice cream on it. At the end of the story, Max is found, with the help of a policeman and a teenager, and Ruby has to buy the shirt instead of the pants they originally planned to buy.

First read. Grace focused on “getting lost” and “asking adults for help” as story concepts and on conceptual questions such as, “Why did Max get lost?” She emphasized vocabulary for articles of clothing such as *pants*, *shirt*, *dress*, and other words critical to story understanding such as *dragon*, *disgusting*, *looked for*, and *screamed*. The six participating children were engaged in the reading, however Maria and the other three EL children didn’t say much. During the reflective conference her coach pointed out the strategies Grace used during the book-reading, defining *shirt*, *pants*, and *dress* by pointing to the children’s own clothing, and *disgusting* as “messy, nasty, and faded.” Grace had also demonstrated *looked for* and *screamed* and restated important information like, “Max fell asleep in the dressing room. He’s sleeping. See? His eyes are closed.” However, the coach also pointed out that when Grace asked “why” questions about the story like, “Why did Max follow the teenager?” and, “Why was Ruby looking

for Max?” the children didn’t answer and seemed confused about basic information such as how the characters were related.

Grace and her coach talked about the idea that the answers to Grace’s “why” questions were never explicitly stated in the story but had to be inferred from the context. They also noted that Maria had pointed to a picture and said, “She mad, ‘cause he dirty.” It was clear to Grace and her coach that Grace needed to help the children make sense of the characters and the sequence of story events before they could make inferences and understand the concepts she had originally planned to explore. They decided that Grace would center the second read around the pictures in the book.

Second read. Grace invited the four EL children to the reading. She asked children what they remembered about the story, and Maria said, “Max got dirty the shirt” and “Max eat ice cream.” During the reading Grace pointed at each picture and asked, “What do you see?” On subsequent pages Maria responded, “Mommy and baby,” “Ruby’s dress too small,” and “Max goed to sleep.” Grace acknowledged and extended these comments by providing direct repetitive commentary for each picture including, “Now Ruby is talking to the perfume lady. She is asking, ‘Have you seen my brother Max?’” She talked with children about the words *escalator*, *dressing room*, *department*, and *lost* and responded to children with simple but important follow-up questions like, “Is that Ruby?” and “Are they going up or down?” which further served to uncover their misconceptions about story characters and events. Although children were still confused about how Max got found (Maria said the policeman would “put Max to jail”) and how Max and Ruby got reunited, they were clearly making progress.

Third read. Grace read the story to the large group with Maria sitting next to her, stopping periodically to invite Maria and the other EL children who had participated in the first two reads to fill in details. Maria seemed pleased and comfortable with her role and contributed the comments, “Max’s pants are nasty!” “This is not...Ruby’s dress,” and “Max scream because the lady there.” When prompted by Grace, Maria told the children the characters’ names, that Ruby was a girl and Max was a boy, and that they were brother and sister. She also provided some story details such as, “It’s red but it’s too small” in regard to the dress Ruby tried on, and at the end she announced, “I told you she find him!”

Grace invited Maria to fill in some words (*disgusting*, *screamed*, *tight*, and *teenager*), reviewed the definitions of others (*department*, *fitting room*, and *vacuum*) and introduced new ones (*sportswear*, *perfume*, and *appliances*). She wrapped up the reading by asking the whole group, “Have you ever been lost?” and children excitedly responded, “My daddy lost me in the park,” and “I got lost in the store just like Max!” Grace used this opportunity to bring up her original planned concepts and talked about safety rules including, “Always stay with an adult,” and “Look for a policeman to help you if you get lost.” In the reflective coaching conference, Grace planned the fourth read. She decided to have the EL children tell the story as she read it, using props she made out of copies of pictures from the book. She also planned to emphasize each of the vocabulary words.

Fourth read. Grace provided the four EL children with paper cut-outs of each story character with a plan to invite them to act out the story as she facilitated with the

pictures in the book. She asked more open-ended questions such as, “What happened to Max in the dressing room?” and “What did Ruby do next?” inviting children to give more complex answers. Maria chose to play Max and the teenager. On each page Grace prompted the appropriate child to verbalize what his or her own character was doing, and she modeled what the character might say, such as, “I’m lost!” for Max and, “Where is Max?” for Ruby. In response to children’s comments, she also pointed out details in the story that hadn’t been mentioned yet, like the safety pin that was holding up Max’s pants, and the make-up the teenager was wearing. Maria used the words “nasty,” “messy,” and “disgusting” to describe Max’s pants, and she used the terms “looked for” and “screamed,” illustrating these behaviors with her characters. She answered the question “What happened to Max in the dressing room?” by saying, “Look at him eyes is closing.” When Grace asked, “Why was Max eating ice cream?” Maria said, “The policeman!” and when she asked, “Who helped Max?” Maria said, “Teenager help too!”

By the end of the fourth read, it was clear that Maria had a solid understanding of story characters and events, and that she had learned some new vocabulary that could be reinforced during classroom conversations. It was also clear that she enjoyed the readings and the social interactions they had stimulated. After the fourth read, Maria held onto the book and “read” it to another EL child, ending by saying, “I tell my mom buy you dragon shirt. Okay?”

March

Language helpers. Grace chose Haley, a socially mature native English speaker with a strong vocabulary, to be Maria’s language helper. During a multisensory finger painting activity she coached Haley and facilitated her interactions with Maria by *asking questions*: “Haley, what does Maria’s painting feel like compared to yours?” (“It feels rough”); *suggesting ways to work together*: “Haley, what can Maria help you with?” (“She can pass me the paint bottles”); *restating Maria’s comments*: “Haley, Maria is asking you for the green paint,” and *prompting*: “Haley, why don’t you ask Maria if she wants to help paint that side?” Toward the end of the painting activity, Grace left the table to get more paint. Maria and Haley giggled as they conspired to add water to the paint bottles, turning to see if Grace was watching. “You my friend,” Maria said to Haley. During the follow-up conference Grace shared how surprised and pleased she was to see this video-recorded interaction between the two girls. She noted that it probably wouldn’t have occurred had she not intentionally paired the girls, scaffolded their interactions, and then provided them with time alone together.

This qualitative case study clearly illustrates the specific strategies that one teacher made to adapt classroom activities to meet the needs of ELs. In addition, it points to the great gains that one EL child can make when she is supported in her language development through specific strategies that engage her in classroom activities.

Qualitative Focus Groups

Focus groups were conducted with teachers and education managers after the SPLD program ended and close to the end of the Head Start program year. Teacher focus groups were conducted separately at each of the Head Start program's five centers. The five education managers met together in one focus group. Similar semi-structured interview protocols were used for teacher and education manager focus groups and each one was audio-recorded and transcribed. Transcripts were coded using three coding steps: open coding, creating categories, and abstraction (Elo & Kyngas, 2008). In the open coding stage, exclusive codes were assigned to meaningful segments of text. These codes were compared for their consistency and differences. In the second stage, codes with similar meanings or pointing to similar basic ideas were grouped to form categories. The abstraction stage produced a set of higher order categories that captured teachers' language and literacy instructional approaches.

Teachers shared their thoughts about the PD program as a whole and the SPLD course in particular. While teachers noted that there was too little time in the day to implement all of the assigned activities and strategies, they indicated that they had changed their classroom practice based on SPLD and that SPLD had benefitted their EL students. Teachers thought that rereading books was a particularly effective strategy for all students, especially ELs. Although teachers had begun rereading books to children during Year 1 of the three-year program, SPLD elucidated for teachers how ELs especially benefit from multiple readings. One teacher said:

He picked up language from the book and was able to retell the stories, which I hadn't noticed before. I mean, I knew that... he would sit and listen to stories and be very attentive, but for him to retell it was something new that I saw after so many book readings, and he really liked them.

Another SPLD practice that teachers noted as particularly beneficial for EL language and literacy development was the Language Helper model. While some teachers assigned language helpers on an as-needed basis, other teachers established "Language Helper" as an official classroom job, incorporating this practice into their ongoing daily routine. In a separate focus group, education supervisors also pinpointed the Language Helper model as one of the techniques they felt made a real difference for the ELs in the intervention classrooms. One education manager stated, "It [the language helper model] was a good technique, and I think it even surprised [the teachers] by how well it worked."

A third practice specifically mentioned by focus group participants was using props to support language. In describing how she individualized her instruction for an EL student who arrived in the middle of the school year, one teacher stated, "I started with pictures. If we sang any songs I made sure that I had pictures, I had puppets, or a flannel board to go with it." Finally, teachers made a connection between EL children's language development and their social interactions. As one teacher said, "Before it was kind of like [he was a] bystander. He would just watch ... now he's more in there, and he's playing cooperatively. And he's included."

Furthermore, education managers noted the importance of the instructional coaches and their ability to mentor teachers effectively. The education managers cited that they felt one of the most beneficial aspects of the PD program was the coaching component, and they indicated that they noticed a large difference in the classroom

quality of SPLD teachers as compared to their other staff. In the focus group, many other managers agreed after one of them said, “It’s just you look at those [SPLD] classrooms compared to the other [non-participants] and it’s a vast difference . . . Just some of the things that they do. Definitely there is a big benefit to the coaching.”

Education managers also demonstrated an understanding of the role of reflective coaching and the use of video-recorded observations to help teachers reflect on their teaching and instructional goals. The education supervisors noted that, in addition to providing teachers with a concrete way to evaluate their own performance, the video-recordings gave them “a baseline for rapport with their coach and the ability for them to grow,” which they felt was one of the biggest benefits offered to teachers.

Quantitative Results: Teachers’ Instructional Strategies (ELLCO Pre-K)

As mentioned above, SPLD was implemented during the second year of a three-year PD program. The first year of the program focused specifically on promoting research-based language and literacy practices and creating a print-rich environment. During Year 1, three teachers moved or dropped out of the intervention and three more teachers took their places. The new teachers had education levels similar to those of the teachers that left: Two new teachers had BAs and one had a master’s degree. In addition, one comparison teacher moved out of the sample.

Data from the ELLCO Pre-K were collected in the fall and spring of Year 1 and again in the fall and spring of Year 2 (during SPLD). To analyze the quantitative data gathered on teachers’ instructional practices, we conducted repeated measures analyses of variance (RM-ANOVA) using ELLCO Pre-K data collected at four time points (fall and spring of Year 1 and Year 2) in both SPLD and comparison classrooms.

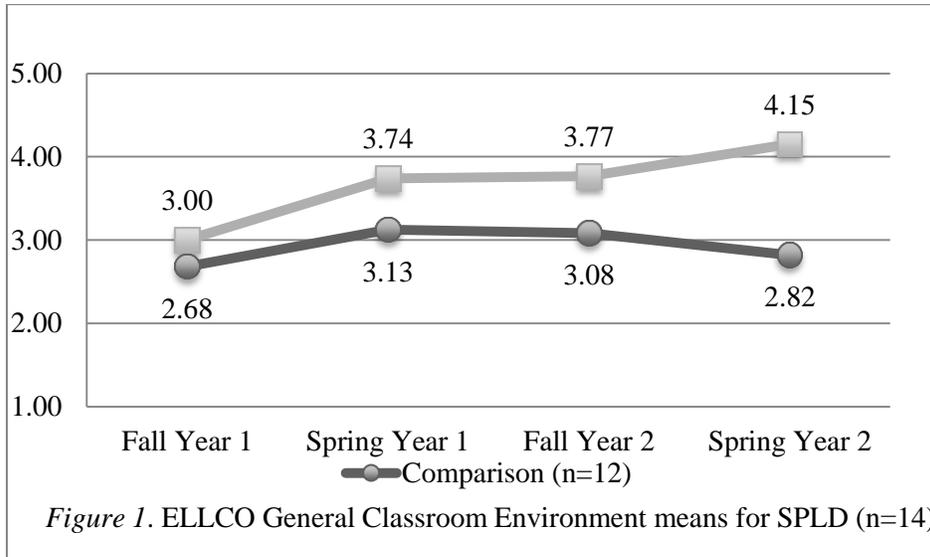
RM-ANOVA results for the General Classroom Environment (GCE) subscale of the ELLCO Pre-K (Table 3) indicate no significant interaction between SPLD and time, but they do show significant main effects of both SPLD ($F(1, 98) = 9.04, p < .01$) and time ($F(1, 98) = 30.91, p < .001$).

TABLE 3
Repeated Measure Analysis of Variance for General Classroom Environment
Subscale

Effect	<i>MS</i>	<i>df</i>	<i>F</i>	<i>P</i>
SPLD	2.39	1	9.04	<.01
Time	8.20	1	30.91	<.001
SPLD*Time	0.05	1	0.20	0.66
Error	26.00	98		

It is important to note that RM-ANOVA is an omnibus test statistic and cannot tell us which specific time points within each group were significantly different from each other. In order to isolate these differences, post hoc comparisons were conducted. Corresponding GCE means by group and time point are illustrated in Figure 1. Bonferroni corrections indicate no significant differences between the mean GCE

subscale scores of SPLD and comparison teachers in Year 1, but significant differences between the two groups in both the fall and spring of Year 2. Within the SPLD group, significant differences were evident between baseline GCE subscale scores (Fall Year 1) and GCE subscale scores at all other time points. Mean scores from subsequent time points (Spring Year 1, Fall Year 2, Spring Year 2) were not significantly different from one another. The comparison group showed no significant differences in GCE subscale scores across time.

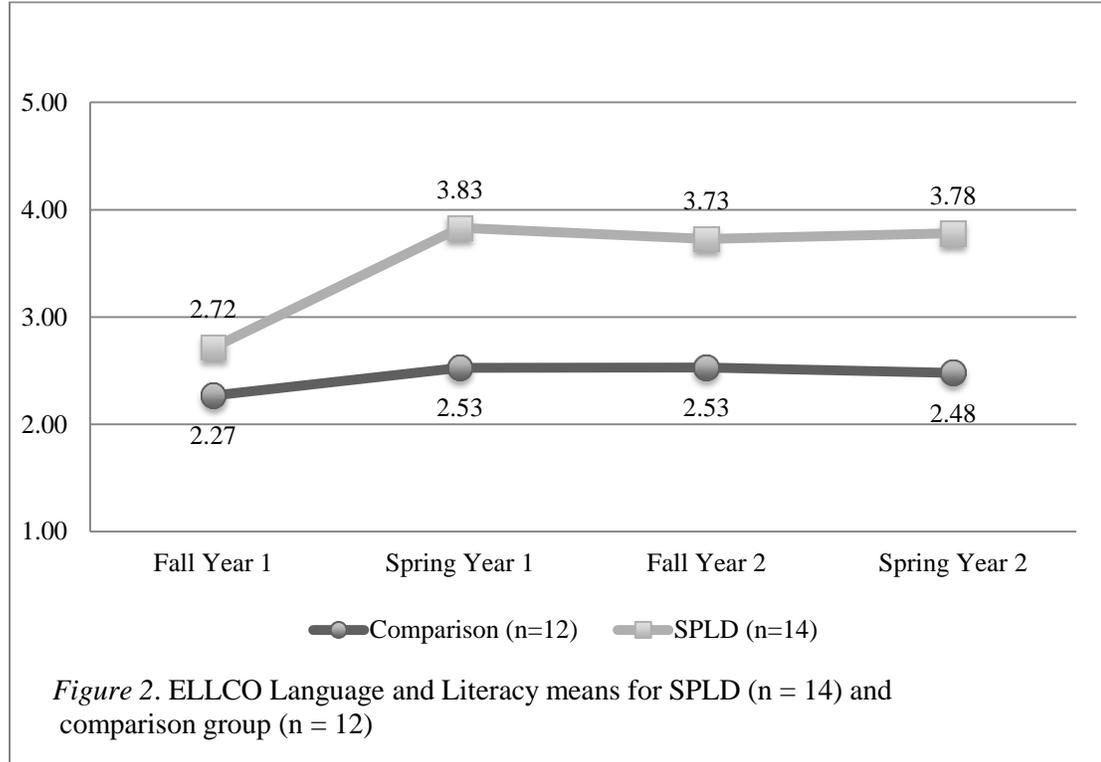


RM-ANOVA of the Language and Literacy (LL) subscale (Table 4) show results similar to those for the GCE subscale: the interaction between SPLD and time is not significant, but there are significant main effects of both the SPLD condition $F(1, 98) = 15.09, p < .001$ and time $F(1, 98) = 18.01, p < .001$.

TABLE 4
Repeated Measure Analysis of Variance for Language and Literacy Subscale

Effect	MS	df	F	P
SPLD	4.64	1	15.09	<.001
Time	5.54	1	18.01	<.001
SPLD*Time	0.17	1	0.55	0.46
Error	30.16	98		

Bonferroni correction results indicate no significant differences between the mean LL subscale scores of SPLD and comparison teachers at baseline (Fall Year 1), but significant differences between the two groups at all other time points. Within the SPLD group, significant differences were evident between baseline LL subscale scores (Fall Year 1) and LL subscale scores at all other time points. Mean scores from subsequent time points (Spring Year 1, Fall Year 2, Spring Year 2) were not significantly different from one another. The comparison group showed no significant differences in LL subscale scores across time. Language and Literacy subscale means by group and time point are illustrated in Figure 2.



Taken together, these results suggest that SPLD and comparison teachers were comparable to one another in both Language and Literacy and General Classroom Environment prior to the intervention. The results further indicate significant growth in both subscales for the SPLD teachers in Year 1 with this growth sustained into Year 2. Finally, the results show no significant change for the comparison group on either the Language and Literacy or the General Classroom Environment subscales.

Quantitative Results: EL Children's Language and Literacy Knowledge (*preLAS* 2000, PLS-4, PPVT-4, and PALS)

The SPLD intervention had a statistically significant effect on the language and emergent literacy development of EL children in participating teachers' classrooms, as measured by the standardized assessments delivered before and after the PD (see Table 5). In the fall of Year 2 the average oral language ability score on the *preLAS* 2000 for ELs in SPLD (n = 162; ELs with proficient English were not included in this analysis) was 41.75. This indicates that, on average, the ELs in SPLD had a baseline oral language ability equivalent to the *non-English speaker* category (proficiency level 1, 0-56) whereas the children in the comparison classrooms had a baseline language ability of 56.4 which was at the cutoff of *non-English speaker* and *limited-English speaker*, (proficiency level 2, 57-66). In the spring, the mean oral language subscale score for SPLD children was

66.93. This constituted a scale score increase of 25.18 points, and is at the cutoff for proficiency level 3 (*limited-English speaker, 67-76*) an increase of almost two full proficiency levels. Children in the comparison classrooms (n = 67) also showed gains, but the average gain on the *preLAS* was much smaller, only 11.27 points over the same period, though they did make the cutoff for proficiency level 3 (comparison mean = 67.67). Both comparison and SPLD ELs showed approximately equivalent gains on the English vocabulary assessment, the PPVT-4; however, on the PLS-4 vocabulary assessment, ELs in the comparison group (n = 73) did not make gains from fall to spring. On the literacy assessment, the PALS Pre-K, ELs in SPLD (n = 171) showed gains on *Letter Knowledge, Beginning Sounds* and *Print Word Awareness*, as did the comparison ELs (n = 73).

TABLE 5
SPLD and Comparison Means and SDs, Gain Scores for *preLAS*, PLS-4 and PALS assessments

	Fall		Spring		SPLD <i>Gain</i>	Comp <i>Gain</i>
	SPLD <i>M (SD)</i>	Comp <i>M (SD)</i>	SPLD <i>M (SD)</i>	Comp <i>M (SD)</i>		
<i>preLAS</i>	41.75 (24.78)	56.40 (22.26)	66.93 (17.75)	67.67 (16.54)	25.18	11.27
PPVT-4	81.07 (13.11)	83.48 (14.76)	88.04 (13.38)	90.25 (12.96)	6.79	6.77
PLS-4	93.25 (12.61)	94.79 (11.51)	96.82 (11.60)	94.32 (13.94)	3.75	-0.47
PALS Letters	6.52 (9.11)	4.93 (7.24)	12.20 (9.95)	9.71 (8.81)	5.68	4.78
PALS Beg sounds	2.16 (2.69)	2.38 (3.07)	4.49 (3.44)	3.22 (3.63)	2.33	0.84
PALS PWA	3.13 (2.62)	4.06 (2.55)	5.75 (2.62)	5.55 (2.44)	2.62	1.49

Note: SPLD = treatment group, Comp = comparison group, PALS Letters = PALS Pre-K Letter Knowledge subscale, PALS Beg Sounds = PALS Pre-K Beginning Sounds subscale, PALS PWA = PALS Pre-K Print Word Awareness subscale.

Beyond simply observing that ELs made gains in their language and literacy skills from fall to spring, we wanted to assess the impact of the intervention on those skills. Specifically, using OLS regression analysis, we found that SPLD had a statistically significant effect on the spring scores of EL children’s *receptive language ability, oral language ability, and beginning sound awareness* (measured by the PLS-4, *preLAS*, and PALS Beginning Sounds subscale respectively), even after taking into account children’s fall scores. EL children who were in SPLD classrooms showed greater gains in their language and literacy development than children in comparison classrooms, even after controlling for initial language and literacy skills (see Table 6). In addition, EL children who participated in SPLD classrooms also had slightly higher *print and word awareness*

than non-SPLD children (this result approached statistical significance). After controlling for fall scores, the SPLD intervention did not have a statistically significant effect on the PALS letter knowledge subscale.

TABLE 6
Variables Predicting Spring Language and Literacy Skills for ELs

Model	<i>B</i>	<i>SEB</i>	<i>B</i>	<i>R</i> ²
Model 1: Predicting spring PLS-4 score				.282***
Fall PLS-4 score	0.518	0.053	.524***	
SPLD intervention	3.365	1.373	.132*	
Model 2: Predicting spring <i>preLAS</i> score				.482***
Fall <i>preLAS</i> Score ¹	0.469	0.034	.720***	
SPLD intervention	6.605	1.894	.173***	
Model 3: Predicting spring PALS score				.126***
Fall PALS Beginning Sounds score	0.391	0.076	.311***	
SPLD intervention	1.385	0.469	.180**	
Model 4: Predicting spring PALS score				.229***
Fall PALS Print & Word Awareness score	0.464	0.056	.484***	
SPLD intervention	0.622	0.32	.113~	

Note: SPLD intervention is the reference variable.

~p = .054 *p < .05 **p < .01 ***p < .001

¹Fall *preLAS* does not include children scoring proficient in English.

While all EL children made significant gains from fall to spring on the PPVT-4 as measured by a paired samples t-test ($p < .05$), there was not a statistically significant effect of the intervention after controlling for fall scores. One potential reason for this lack of an intervention effect may be that the PPVT-4, which is an assessment of receptive vocabulary, is not a sensitive enough instrument to detect smaller effects in this population; the PPVT-4 was also normed on native English-speaking children and therefore may not be the most appropriate measure of language gains for ELs. Whereas the PLS-4 is also a receptive language assessment, it does more than assess vocabulary; rather it evaluates children's basic receptive communication and language skills and therefore may be more sensitive to changes and development in children's overall language understanding. Interestingly, on the PLS-4, children in SPLD classrooms started slightly behind their comparison peers but made greater gains, ending the year with higher oral language skills than the students in the comparison group.

DISCUSSION

The PD program described in this study included foundational early language and literacy training and emphasized the instructional practices, strategies, and adaptations that

support ELs' inclusion and engagement in classroom activities. Teachers who participated in the PD showed statistically significant gains in measures of instructional quality compared to comparison group teachers. These results are consistent with research that indicates PD is more effective when it is content-specific, incorporates collaborative coaching, and utilizes assessment for progress monitoring (Appleton, 2008; Darling-Hammond, 2012; Zaslow et al., 2010). Analysis of classroom observation data from four time points (across two years) revealed that during the first year of the professional development teachers made significant gains in the quality of their language and literacy practices and general classroom environment, and sustained these gains during the SPLD year. In addition, qualitative findings revealed that SPLD teachers used SPLD practices—particularly multiple book-readings, the Language Helper model, and contextualizing conversations with props—and credited these with supporting ELs' language and literacy development.

The case study explicates these practices by detailing the multiple adaptations Grace made to her typical classroom activities, including pairing and grouping children intentionally, facilitating dramatic play from the *inside* and the *outside*, and employing multiple readings of the same book. It also illuminates the interactions between a teacher and a coach over multiple conferences. In so doing, the case study begins to uncover the mechanisms through which reflective coaching supports a teacher's capacity to apply EL focused language-teaching strategies. For example, after the second reading of *Max's Dragon Shirt*, Grace's coach helped her identify how and why EL children were not responding to the questions about the story. As a result, Grace was able to reconfigure her questions to improve their effectiveness as evidenced by children's increased responses. The qualitative data are certainly consistent with the research that coaching, when it emphasizes collaborative reflection and teacher action and inquiry, fosters teachers' pedagogical skills (Appleton, 2008; Snow, Griffin, & Burns, 2005). The case study and education manager focus groups also indicate that coaching promoted teachers' application of content introduced in the SPLD course. In addition, the case study underscores the use of video-recording as a coaching tool. By making children's language and behavior visible to the teacher and coach, and making them available for joint reflection, video-recordings seemed to promote the teacher's ability to identify connections between children's learning and her instructional practices.

Although teachers in the focus group did not emphasize formative assessment as a beneficial SPLD practice, the case study serves to illuminate the iterative nature of the relationship between formative assessment and responsive language teaching. Collecting and analyzing data from multiple sources alerted Grace to Maria's specific language needs, which stimulated her to implement more responsive language-support strategies and subsequently to collect more specific data about Maria's language development. Moreover, the qualitative data (from both the case study and the education manager focus group) suggest that analyzing formative data with the facilitation of an experienced coach builds teachers' capacity to identify effective language-teaching strategies and refine their practices.

In addition to the gains SPLD teachers made in their instructional practices and the adaptations that teachers made for ELs, the results of the quantitative study indicate a statistically significant effect of the intervention on EL children's language and literacy learning. After controlling for fall scores, EL preschoolers in intervention classrooms

made significantly greater gains than comparison group EL preschoolers on measures of oral language development, receptive language development, and emergent literacy. The qualitative case study also provided a detailed picture of one child's English language learning over time. Specifically, the case study indicates that the adaptations Grace made to classroom activities increased Maria's opportunities to engage in contextualized conversations. This engagement exposed Maria to a wide range of words from more simple and "comprehensible" to more complex, and helped her to make meaning of words and concepts relevant to different situations (a science activity, a restaurant scene, taking care of a baby, a shopping excursion). This seemed to stimulate a recursive, positive cycle. Maria's increasing language skills created more opportunities for interaction, which in turn presented her with more opportunities to hear and use language. This relationship between language and social interaction was also noted by teachers in the focus group.

For ELs' emergent literacy knowledge, the quantitative data indicate that ELs in the intervention classrooms made greater gains in beginning sounds and print and word awareness but not in letter knowledge. We speculate that while most preschool classrooms focus on alphabet knowledge as a part of regular classroom practice, the book-reading adaptations that support ELs' early literacy development are not typically a part of regular classroom practice and may have contributed to the intervention effect for beginning sounds and print and word awareness.

In a review of the first year of the language and literacy program (Young, Schilder, & Anastasopoulos, 2011), the authors examined the effect of the intervention on ELs' language and literacy development. It is interesting to note that, while all children in the intervention made gains in their language and literacy development, there was not a statistically significant effect of the intervention for ELs in Year 1. This suggests that, in order to impact the language development of EL children, teachers need PD that specifically targets ELs and delineates the pedagogical knowledge and skills needed to support second language development. However, the fact that there was not a statistically significant effect of the intervention for ELs in Year 1 suggests that the course sessions may have also played a central role in focusing *coaches'* attention on the specific language needs of ELs. In Year 1, as in Year 2, coaches attended the instructional course sessions and worked one-on-one with teachers.

The overall findings from this study suggest that the intentional inclusion of ELs in classroom activities and a sustained emphasis on the practices, strategies, and adaptations that support their inclusion, may be the key to promoting ELs' language success in early childhood classrooms.

LIMITATIONS

Teachers were not randomly assigned to treatment or control groups, and therefore the results of this study are correlational in nature. Comparison teachers were recruited from three different Head Start programs, whereas all of the teachers in the PD came from one program. There may have been some differences in program quality that were not taken into account in our models; however, all preschoolers in this study were ELs with similar family SES. In addition to the precautions taken to ensure reliable and valid data,

researchers aimed to reduce any possible observer expectancy effects by not distinguishing between intervention and comparison classrooms with data collectors. However, over time, data collectors may have noticed differences between the two groups, as intervention classrooms tended to be of a noticeably higher quality with regard to language and literacy practice, and this may have introduced some observer bias.

An additional limitation of the study is that it does not clearly separate the effect of SPLD instructional sessions from the effect of one-to-one coaching, nor do the quantitative data explicate the relationship between the two. Although it seems clear from the qualitative data that coaching increases the impact of the instructional sessions, a quantitative study would help to further uncover the mechanisms through which it does so.

Future Directions

Research suggests that content-focused coaching that is *responsive*, *relational*, and *reflective* has the potential to play a significant role in supporting teachers' content knowledge and pedagogy (Appleton, 2008; Kochan, 2002), their reflective capacity, and their ability to implement new practices (Neufeld & Roper, 2003). One interesting aspect of the current research is the inclusion of the qualitative case study which illustrates the interaction between a teacher and coach who worked together in SPLD. Further research in this area could specifically parse out the value added to the PD by the coaching component through systematic investigation of a PD-without-coaching intervention and a PD-with-coaching intervention. This type of study might also further describe the mechanisms through which coaching influences teacher practice.

In the present study, video-recorded observations were used during reflective conferences for a critical examination of the teachers' instructional practices in relation to the strategies presented in the PD. These video-recordings may have played a key role in promoting ELs' language and literacy development as they served to focus the teachers' and coaches' joint attention on discrete classroom interactions. Future research might further describe the role of video-recording as a coaching tool. Moreover, future research could also plan a randomized-control (RCT) fully powered study to test for a cause and effect relationship between the SPLD program and changes in ELs' language and literacy skills. In addition, because SPLD was conducted as part of a three-year language and literacy program and was not evaluated as a stand-alone intervention, future studies could investigate whether SPLD could be replicated without an initial year of language and literacy professional development.

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