



# *Connect4Learning: The Pre-K Curriculum*

## Supporting Dual Language Learners



# Introduction

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## Dual Language Learners in Preschool

All preschoolers should be considered language learners, because all preschoolers are developing their oral language, vocabulary, and emergent literacy skills progressively over time. Young children who speak a language other than English at home and who are not fully fluent in English are considered dual language learners (DLLs). The U.S. Department of Education and the Office of Head Start adopted the term *dual language learner* to highlight and promote the linguistic assets of young children and their families who speak languages other than English. The growth in the percentage of DLL children in early childhood settings and the public schools continues to exceed projections. In some parts of the country, more than 50 percent of preschoolers come from non-English-speaking homes (Karoly et al. 2008). The U.S. Census Bureau projects that by the 2030s, children whose home language is other than English will increase from approximately 22 percent to 40 percent of the school-age population, with the numbers growing even more rapidly for the preschool years due to increasing immigration and birth rates (Center for Public Education 2012). Many DLL students display strong social-emotional skills and are successful in both English and their home languages. Yet as a demographic group, DLLs often struggle to become proficient in English, perform low academically, and have school drop-out rates almost twice those of native English speakers (Halle, et al. 2014; Collier and Thomas 2009). The convergence of these factors creates a critical need to design and implement a research-based early childhood curriculum that best supports proficiency in English and the home language and high academic achievement of DLLs.

## Home Language

Educating young DLLs means thoughtfully considering the connections among language, culture, and learning in an early childhood environment (Office of Head Start 2008). One important component of this environment is maintaining the home language, which research indicates is important for later academic and social achievement. Research suggests that if children lose their home language, they may not become proficient in either their home language or English. Losing the home language means that preschoolers may find communicating with family members difficult and feel less connected to family traditions and heritage. This disconnect can lead to emotional and self-esteem difficulties as children become adolescents (Castro et al. 2011; Puig 2010). Recent studies suggest that supporting home language retention and development during the early childhood years facilitates long-term attainment of English (Office of Head Start 2008). Furthermore, research reveals that the academic advantage goes to children who have age-appropriate proficiency in both languages, or balanced bilingualism. This level of bilingual proficiency is positively correlated to an increased ability to reason by analogy, form new concepts, and achieve strong language skills (Castro et al. 2011).

## Benefits of Balanced Bilingualism

The above points speak to the inherent benefits and advantages of being a DLL. Research reveals that DLLs consistently outperform monolingual children on tasks that require focused attention, inhibitory control, planning, working memory skills, and cognitive flexibility (Bialystok and Viswanathan 2009). Notably, these advantages are found across all social-economic, racial, and ethnic groups, and are correlated to the level of bilingualism. Those children who have more balanced skills in each language demonstrate the greatest advantage. Furthermore, research on children who learn English after their home language—usually around three years of age—shows they are capable of adding a second language and that this dual language ability produces long-term cognitive, cultural, and economic advantages (Bialystok 2009). The early childhood years are a critical time for developing the mastery of the sounds, structure, and functions of language, and therefore an ideal time to expose children to the benefits of two languages (Conboy and Kuhl 2011). DLLs bring a diversity of languages, cultures, and experiences to early childhood programs, and they are poised to achieve greatly with research-based curriculum and best practices in the classroom.

## Introducing Connect4Learning

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Connect4Learning (C4L) is an interdisciplinary early childhood curriculum, the development of which was funded by the National Science Foundation. C4L aims to synthesize research-based approaches in four domains of learning: mathematics, science, literacy, and social-emotional development. The curriculum uses an interdisciplinary approach to address growing concerns that the majority of preschool instructional time is devoted to literacy at the expense of other content areas, particularly mathematics and science. To address this concern, the C4L units build on a sequence of math and science topics that are grounded in research-based learning trajectories and developmental pathways. Literacy and social-emotional skills are developed in the context of these math and science topics, as well as through focused lessons. C4L further aims to develop cognitive process goals that are both domain specific and applicable across all four domains of learning. These process goals include skills that address executive function and learning such as persistence, self-regulation, reasoning, problem solving, and innovating. Research suggests that these enhanced executive function abilities as well as improved language skills are positively correlated to early bilingualism (Craik, Bialystok, and Freedman 2010), positioning DLLs to be prepared for success and growth with C4L's focus on process goals. C4L maintains high expectations for all learners, including those who speak another language at home. Through meaningful experiences and collaboration, robust vocabulary, interactive science lessons, and an emphasis on the universal language of mathematics, C4L is designed to benefit young DLLs as they learn English in the classroom.

### Research-Based Best Practices with C4L

DLLs respond best to an early childhood curriculum that is research based; emphasizes active engagement; balances large-group, small-group, and individual learning; and is culturally responsive to children from a variety of communities and backgrounds (Chen and Shire 2011). A special focus on oral English proficiency is also important due to its direct relationship with later academic achievement. C4L's intentional curriculum incorporates research-based best practices designed to respect the strengths and support the needs of young DLLs. The following sections highlight these practices in detail with specific examples of how C4L translates research into action for DLLs.

## Practice 1: A Language-Rich Environment

A language-rich learning environment includes all forms of language: spoken, heard, read, and written. Young children's speaking, listening, and early literacy skills develop through purposeful opportunities to hear language modeled and used in rich and varied contexts. In particular, oral language is the primary means by which children gain knowledge about the world, and it is the vital foundation of children's literacy development (Shanker Institute 2009). Studies consistently reveal a strong correlation between early oral language skills, such as phonological awareness, and later literacy skills, such as reading comprehension (National Institute of Child Health and Human Development 2005; Storch and Whitehurst 2002). Research also shows that both native English speakers and DLLs benefit from teachers systematically modeling and supporting children's use of conversational and academic language in context (Shanker Institute 2009; Mohr and Mohr 2007). DLLs require a significant amount of oral language development to improve their English language skills, which can be achieved through parallel talk, self-talk, repetition, extension, peer and teacher modeling, and keeping directions and other language short and simple (Castro et al. 2006). Early childhood teachers can help children transfer their new English language knowledge back into their home languages. Children who understand

that there are links between the two languages (such as spelling rules, cognates, or sounds that are the same in both languages) will have an easier time gaining English fluency (Hammer 2009).

### Research into Practice with Connect4Learning

The Connect4Learning (C4L) curriculum provides extensive opportunities for young DLLs to improve and enhance their oral language development through immersion in a language-rich classroom environment. C4L balances large-group, small-group, and individual interactions between teachers and DLLs to engage children in meaningful language use throughout the day. The curriculum's literacy approach focuses specifically on receptive and expressive language, concept knowledge, and world knowledge. This approach facilitates children's growth and competence with semantics (word knowledge), syntax (knowledge of word order and grammatical rules), and narrative discourse skills such as the ability to tell or retell a story. C4L's emphasis on learning through play also facilitates oral language development with the implementation of engaging learning centers and project-based learning. Young DLLs have the opportunity to explore their interests and practice communicating and collaborating with peers. Active participation in learning centers helps DLLs engage in conversations as they play with other children, express their imaginations, and solve problems using their developing English. Finally, C4L's integrated process goals include communicating and representing knowledge. As DLLs' language skills develop, they become more comfortable initiating conversations with others; voicing their thoughts and questions; and supporting their linguistic, social-emotional, and academic growth.

## Practice 2: Active Participation

DLLs may require extra support, modifications, and encouragement to participate fully in the early childhood classroom. DLLs arrive at preschool with varying levels of language and literacy skills, largely due to a variety of experiences and language environments at home (Ballantyne, Sanderman, and McLaughlin 2008). These children acquire English at varying rates. The result is preschoolers with a wide spectrum of language proficiency and security in using their developing English. Early childhood programs serving DLLs should provide multiple opportunities for children to participate in classroom activities in a variety of ways, including nonverbal responses, as young DLLs will naturally communicate their knowledge using the safest way possible (Office of Head Start 2010). Suggestions include using the thumbs up or thumbs down and yes or no signs so that children can express their understanding and knowledge without having to speak. In addition, research on effective teaching practices for DLLs reveals engaging methods that help children comprehend and participate more fully in school. Examples include playing with hand puppets and interactive games to illustrate concepts and actions and to engage children physically (Pasnak, Greene, and Ferguson 2006); using music or stories with repetitive and predictable language; and incorporating visual aids, hand gestures, and sentence starters into instruction to help children actively participate and respond (Gillanders and Castro 2011; Goldenberg, Hicks, and Lit 2012). Finally, an emotionally supportive environment is important for young DLLs, so that as they slowly develop their new language skills, they feel safe to take risks and make mistakes.

### Research into Practice with Connect4Learning

Connect4Learning (C4L) sets high expectations for all preschoolers and provides many and varied opportunities for DLLs to participate fully in the classroom. Learning in a C4L classroom is active and interactive, incorporates the senses, and allows children to express themselves in a variety of nonverbal ways, particularly within diverse learning centers and project-based learning. Learning centers emphasize active participation through listening, exploring, creating, constructing, and puppet playing—all activities that DLLs are likely to feel more comfortable with as they acquire spoken English. In addition, the C4L curriculum emphasizes mathematics and science content, in contrast to the more common early childhood education strategy of building the curriculum around literacy. As such, C4L units build on a sequence of math and science topics that are grounded in research and universal learning trajectories and draw meaningful connections among all learning domains. The curriculum prioritizes key competencies that are the same in all languages, such as spatial reasoning and sequencing. This approach supports young DLLs—whose general knowledge and skills are likely higher than their English ability—in their efforts to comprehend, engage with teachers and peers, and show what they know.

## Practice 3: Vocabulary Expansion

During the preschool years, children must acquire the words necessary to communicate their needs, understand teacher expectations and instructions, and develop deep content knowledge, all of which can be particularly challenging when simultaneously learning a second language. Helping DLLs improve and expand their English vocabulary skills is necessary to narrow the achievement gap as children progress through school. One recent study of 80 preschool DLLs found that rich explanations of target vocabulary, coupled with frequent school and home reading, positively affected the learning of sophisticated vocabulary from storybook read-alouds (Collins 2010). Research further revealed five important instructional elements for supporting DLLs' vocabulary development: 1) gesturing, 2) defining, 3) using decontextualized statements, 4) providing synonyms, and 5) pointing to illustrations (Collins 2010). Similarly, early childhood research suggested that effective vocabulary instruction for all children should include the explicit instruction of new words, a guided practice with multiple opportunities to use new words, a systematic review of words, and regular progress monitoring to inform ongoing instruction (Neuman and Dwyer 2009). Finally, research also found that the systematic and rich explanations of new vocabulary in context,

such as during reading, enhance the vocabulary acquisition of native speakers and DLLs (Collins 2005).

### Research into Practice with Connect4Learning

The Connect4Learning (C4L) curriculum emphasizes vocabulary as a meaningful tool, aligned with learning standards and expectations that students attend to informational texts with rich vocabulary, language, and background knowledge demands as they progress through school. C4L provides more than 120 children's books—including trade books, and custom alphabet, informational, and concept books—to promote the development of vocabulary skills in all children and to help narrow DLLs' vocabulary gap. DLL experts recommend the use of photographs, images, and written words to introduce new concepts and vocabulary and to deepen comprehension. Every C4L curriculum week highlights for the teacher the new vocabulary words that will be introduced during the week. This vocabulary is incorporated multiple times and in multiple ways throughout the week's lessons, providing children with extensive exposure and repeated practice in meaningful learning contexts. As DLLs develop content-tied vocabulary, they have opportunities to improve their language capacities and expand on this learning. C4L further aligns with research by encouraging DLLs to learn new vocabulary through conversations, social interactions, and in the context of six engaging themes and collaborative class projects. With repetition, visual supports, and context-based learning, young DLLs gain exposure to English vocabulary that allows for significant growth.

## Practice 4: Predictable Routines

Classroom routines are a critical part of effective classroom management and instruction in any early childhood setting (Hemmeter, Ostrosky, and Fox 2006). Routines help young learners understand how to respond and behave appropriately in various classroom situations, whether getting ready to go outside or making good choices. They are particularly valuable for young DLLs who are new to both school and the English language. Predictable and consistent routines help DLLs understand what is happening in the classroom when they do not yet comprehend all the words being spoken (National Association for the Education of Young Children 2009). Regular routines also strengthen DLLs' security and confidence by helping them understand what to do and when. Examples of daily routines beneficial for DLLs include that day's schedule, the morning welcome, and going-home routines (Tabors 2008). The schedules and rituals built into routines create patterns of social interaction that are stable and predictable for young DLLs, thereby helping them gradually learn new concepts and vocabulary without becoming overwhelmed (Nemeth 2014). Educators can also structure the early childhood classroom to provide scaffolding for DLLs' language learning. Arranging the classroom to support each type of instructional activity and keeping changes in the physical environment to a minimum helps children learn which activities take place in various parts of the classroom (centers and circle time, for example). Visual cues (such as schedules with images, posters with photos of behavior expectations, and visuals of possible center activities) will help DLLs understand what they should do, what they will be learning, and how they should behave in each area (Barone and Xu 2008).

### Research into Practice with Connect4Learning

Connect4Learning (C4L) helps educators design learning environments that promote all children's engagement with activities, materials, and peers (Fox et al. 2003; Hemmeter, Ostrosky, and Fox 2006). This approach to social-emotional development particularly supports DLLs as they enter the classroom with varying levels of English proficiency. The curriculum's social-emotional learning objectives include following classroom rules, expectations, and routines. Educators implement simple, consistent, and predictable classroom routines, such as the Problem Solver routine shown here, that allow DLLs to gain familiarity, gradually learn new concepts, and share learning experiences with their peers. In addition, C4L lessons outline daily routines and transition moments, as well as curriculum adaptations, to support children as they navigate through the day.



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## Conclusion

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The C4L curriculum sets high expectations for young DLLs and all learners in the early childhood classroom. Young DLLs have the opportunity to learn English and retain their home language by actively engaging with content at a deep level, collaborating with peers throughout the day, and repeatedly practicing new vocabulary and concepts. The curriculum's unique process goals also ensure that DLLs—regardless of their level of English proficiency—are practicing and mastering skills that are applicable across all domains of learning and correlated to later success in school. Learning to communicate, cooperate, create, observe, persist, reason, problem solve, and strategize is valued as much as learning the ABCs and 123s. By placing an emphasis on skills that are not language dependent but universal to learning and healthy development, C4L positions DLLs to thrive both socially and academically.

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