Operationalizing High-Quality Dual Language Programming

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Executive Summary

Across the United States, 33% of young children between the ages of birth to eight are emergent bilinguals, or children who are learning two or more languages at the same time (commonly referred to as dual language learners).

A robust body of research indicates that dual language immersion (DLI) is the gold standard emergent bilinguals. However, across the board, most of these emergent bilingual children in early care and education only receive instruction in English. Consequently, we are missing an opportunity to provide these children with the type of instruction that is most effective in supporting their linguistic, academic, and socioemotional development.

What's more, there is currently no comprehensive set of standards on what constitutes high quality DLI education for young emergent bilinguals who are infants/toddlers, preschoolers, or those in Kindergarten through second grade. This limited operationalization makes it difficult to scale up, and improve upon, existing DLI programs.

The aim of this brief is to operationalize what high quality dual language immersion looks like for infants/toddlers, preschoolers, and students in Kindergarten through second grade. The brief provides an overview important context and core concepts foundational for this work, including a description of emergent bilinguals in the United States, a strength-based approaches to bilingualism, a historical account of bilingual education, and a description of how DLI education is part of a broader, equitable child serving system. It also showcases a framework of high-quality DLI education for children in early care and education that was informed by an exhaustive research synthesis, expert convening, and primary data collection using a multiple case studies design.

The comprehensive framework of high-quality dual language immersion education for infants/toddlers, preschoolers, and students in Kindergarten through second grade is composed of seven dimensions:
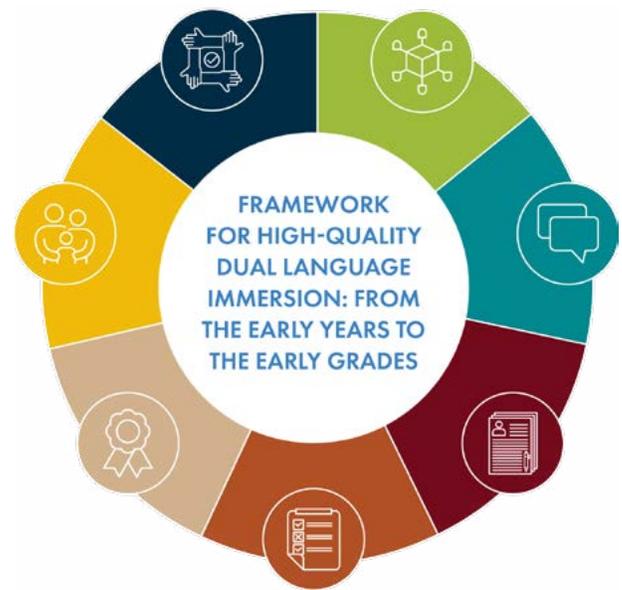
FRAMEWORK FOR HIGH-QUALITY DUAL LANGUAGE IMMERSION: FROM THE EARLY YEARS TO THE EARLY GRADES

1. PROGRAMMATIC STRUCTURES

2. LANGUAGE ALLOCATION

3. CURRICULA, INSTRUCTION, AND PEDAGOGY

4. ASSESSMENT

5. WORKFORCE EDUCATION, CREDENTIALS, AND PROFESSIONAL DEVELOPMENT

6. FAMILY LEADERSHIP AND ENGAGEMENT

7. SERVICES AND INCLUSION FOR EMERGENT BILINGUAL CHILDREN WITH DISABILITIES

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Below, we share an overview of each dimensions of quality and its corresponding state of the research.

1. PROGRAMMATIC STRUCTURES

Programmatic structures are the infrastructure necessary to carry out high-quality dual language education. This infrastructure consists of the leadership, program philosophy, school/program climate, budgets that facilitate dual language implementation, and policies that guide enrollment, pedagogy, workforce support, family partnerships, community engagement, etc. In dual language programs, these programmatic structures are the foundation that support children's acquisition of the four pillars of dual language education: bilingualism, biliteracy, biculturalism, and consciousness about equity and justice.

STATE OF THE RESEARCH

There is currently very limited research on the programmatic structures of DLI programs. Most of the research on this topic has addressed equitable enrollment in DLI programs in the K–12 system. This current research on enrollment shows that in some DLI programs, there is an underrepresentation of emergent bilinguals who speak a language other than English at home. Research shows that programs can sometimes become gentrified when the interests of middle class, monolingual White parents are favored over the needs and desires of families of color. There is also an under-enrollment of children with disabilities and Black children in DLI programs. Therefore, it is important to have equitable enrollment policies in DLI programs serving emergent bilinguals.

2. LANGUAGE ALLOCATION

High-quality DLI programs serving young children have additive language allocation models (i.e., not transitional bilingual programs) that ensure adequate exposure to both languages, which may vary depending on children's age and the composition of languages represented in the classroom. For infants/toddlers, educators provide instruction in the home language to set the foundation for bilingual development, and/or in English and the partner language. For preschoolers and elementary-aged students, languages may be allocated by teacher, by time (e.g., half days in each language), by subject area (for older students), or by all of these. The language allocation model is additive, clearly defined, and planned. Educators are trained to implement the model with high fidelity. Translanguaging pedagogies are defined and purposefully implemented in the context of each language's allocated time and space, and are the subject of ongoing educator training and professional development.

STATE OF THE RESEARCH

Research on language allocation offers evidence that there are short-term and long-term benefits to additive bilingual education, especially DLI programs for those in preschool and elementary school. Research on the specific language allocation for infants/toddlers is lacking; however, adjacent bodies of literature, including neuroscience, language development, and socioemotional attachment, suggest that home language maintenance may facilitate teacher-child relationships, family partnerships, and a strong first language base that, with exposure and intentional scaffolding, can generalize to English in the preschool years and beyond. Research also indicates that infants/toddlers can begin developing bilingually at an early age. For preschoolers, research indicates that children in DLI programs demonstrate greater fluency across languages. Children enrolled in elementary schools with a DLI model have higher bilingual skills, are more likely to reach English fluency faster, and perform similar or higher on standardized measures of English language arts and math as their peers who do not receive dual language instruction in later grades.

3. CURRICULA, INSTRUCTION, AND PEDAGOGY

High-quality curricula, instruction, and pedagogy in DLI early care and education programs have alignment of curriculum and instruction with early learning standards, use of research-supported curricula that address the whole child, developmentally appropriate practices, rich and engaging teacher-child interactions, child-centered and child-driven learning opportunities, and individualized supports. They also have components unique to bilingual learning environments, including research-supported strategies for promoting bilingual learning that are meaningfully and strategically central to each aspect of the pedagogy, curriculum and instruction, including the use of a translanguaging pedagogy to help children make cross-linguistic connections. The goal is supporting children's bilingual academic and socioemotional development, as well as to promote pride in their identities.

STATE OF THE RESEARCH

Research suggests that emergent bilinguals in preschool and early elementary school benefit from instruction that makes connections between their two languages, and integrate the use of visuals, movement and objects, small groups, vocabulary previews, storybook reading, etc. There are some instructional models designed to specifically support the language learning of emergent bilinguals who are infants, toddlers, and preschoolers, such as the Personalized Oral Language Learning (POLL) and Project Guided Acquisition Learning Design (Project GLAD). The Sobrato Early Academic Language (SEAL)'s P-3 Framework is a pedagogical and system-level approach to support emergent bilinguals. More research is needed to evaluate the effects of these approaches in dual language programs serving preschoolers and early-elementary-aged students. The use of translanguaging to help support children's metalinguistic awareness (ability to "think about language") and to help them develop positive identities as bilinguals is a promising approach, but further empirical research is needed on the effects of its implementation and teachers' professional development.

4. ASSESSMENT

In DLI early care and education, assessments are tools to gather and provide education teams and families with information about children's development and growth trajectories, guide teachers' professional development and ongoing quality improvement, and hold federal, state, and local education agencies accountable. For young emergent bilinguals in DLI programs, assessments should gather information on what they know across languages, and trained interpreters should be used when the team doing assessments does not speak the child's home language. Assessments should also be carefully selected to be linguistically and culturally valid to reduce the risk of bias. Child, classroom, and program-level assessments should be used to inform the delivery of high-quality DLI programming for young emergent bilinguals.

STATE OF THE RESEARCH

To date, most of the research on assessments for young emergent bilinguals has focused on conceptualizing how to assess children in ways that are linguistically and culturally valid; ensuring assessment are conducted in the home language and English as appropriate; developing standardized assessments are normed on bilingual children; using conceptual scoring to assess skills w across languages; and conducting dynamic assessments to gather information

about the types of support children need. In recent years, assessments such as the Individual Growth Development Indicators-Spanish (IGDI-S), the Bilingual English Spanish Assessment (BESA), and the mCLASS Español (K-6) have been normed on bilingual children in the U.S. These assessments focus on language and early literacy, and other assessments such as Pre-IPT in English and Spanish and the PreLAS were developed to measure children's fluency in each language. Some classroom observation tools specifically designed to capture the quality of language interactions and early literacy instruction for young emergent bilinguals have been developed (e.g., ELLCO-DLL, CASEBA, LISn), but more work is needed to make them commercially available, and to have measures that evaluate the quality of instruction holistically.

5. WORKFORCE EDUCATION, CREDENTIALS, AND PROFESSIONAL DEVELOPMENT

High-quality early care and education dual language programs need well-trained and fairly compensated educators that are highly skilled to support children's bilingual development and overall academic, cognitive, and social development, including the skills to support children with disabilities who are also emergent bilinguals. Bilingual educators should be equitably compensated by ensuring that teachers providing instruction in the language other than English are paid at least on par with or more than monolingual English speakers, to recognize the unique value of their language skills and training and to address the current bilingual teacher shortage in the U.S. Educators should also receive ongoing professional development to expand their understanding and implementation of research-supported strategies for providing instruction and conducting assessments with bilingual children, including bilingual children with disabilities. To ensure that programs have highly qualified bilingual teachers, there should be pathways for recruiting and retaining staff, including programs to support paraprofessionals, parents, and other community members to become certified teachers.

STATE OF THE RESEARCH

Data indicate that there is a bilingual educator workforce shortage. Moreover, there are current disparities between lead and paraprofessional educators and the language(s) they speak, with paraprofessionals more likely to be Latine[1] and others of color. These paraprofessionals are an untapped

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[1] *Latine* is a gender neutral way of referring to individuals who are Latin American or have Latine American ancestry. Other terms used for this population include *Latinx, Latino, Latina,* and *Hispanic.*

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source for increasing the number of qualified bilingual educators. Recruitment and retention programs such as Grow Your Own are promising pathways for expanding the bilingual early childhood education workforce. Additional research is needed to develop and evaluate effective professional development programs for bilingual educators working in dual language programs serving young children, including those with disabilities.

6. FAMILY LEADERSHIP AND ENGAGEMENT

In high-quality dual language early care and education, families receive authentic opportunities for leadership and engagement; their knowledge and expertise are integrated into the instruction and program environment and activities; they have access to information in their home language(s); and they receive comprehensive supports — including information about community resources and guidance to transition from preschool to Kindergarten. Furthermore, careful attention is given to ensure that the voices of families of color from under-resourced communities are centered and made a priority, as they are often less likely to be heard or valued.

STATE OF THE RESEARCH

Research on Latine family engagement with older children in DLI programs suggest there are promising family engagement strategies that are likely applicable to younger children, including parent-led meetings where families learn about bilingualism, offer their expertise, and are offered classes to learn English and obtain General Education Diplomas (GEDs). More research is needed to identify effective ways of offering families of color who do not speak English — as well as families who do not speak the other language of instruction (e.g., Indigenous families from Latin American countries who do not speak Spanish) — and whose children are enrolled in early care and education dual language programs with opportunities for leadership and engagement.

7. SERVICES AND INCLUSION FOR EMERGENT BILINGUAL CHILDREN WITH DISABILITIES

In high-quality dual language education, children who are emergent bilinguals and have suspected or identified disabilities receive their special education services in inclusive settings, and children who are suspected of having a disability are assessed in their home language, or bilingually

as needed. Services are delivered in their home language and English, with coordinated support to ensure both their bilingualism and overall communicative, physical, cognitive, socioemotional development are supported. To accomplish this, children who are emergent bilinguals with suspected or identified disabilities are served by a multidisciplinary team (e.g., special and general educators, home visitors, speech language pathologists, occupational therapists, etc.), and general education teachers receive professional development from inclusion coaches with expertise on bilingualism and special education. Furthermore, programs have explicit policies and procedures to facilitate timely bilingual screening and referrals and coordination of special education services. Families are supported in seeking referrals, evaluations, and services as needed, and in fostering their child's development, including their bilingual development.

STATE OF THE RESEARCH

There is research supporting that emergent bilinguals with disabilities can develop bilingually, but there are a lack of studies empirically examining the impact of providing these children with dual language instruction, including bilingual special education services. Researchers note that these children are frequently excluded from special education and dual language education due to various factors, including lack of bilingual special education personnel, lack of training on how to best assess and support emergent bilinguals with suspected or identified disabilities, misconceptions about bilingualism, and educational policies, standards, and data collection that omit this population. Research is needed to better understand how to provide these children with special education services in inclusive dual language programs, how to recruit and retain a bilingual special education workforce, and how to train both monolingual and bilingual special and general education teachers to support these children.

The **Early Childhood Longitudinal Study**—Kindergarten cohort, a long-running study funded by the Institute of Education Sciences at the US Department of Education, has provided valuable insights into emergent bilingual children. Importantly, a new wave of data collected in the 2023–2024 school year will shed new light on the current population of young bilinguals, including potential impacts on their experiences, learning, and development from the COVID-19 pandemic.

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Introduction

There are presently 11 million emergent bilingual children between birth and age eight in the United States, making up approximately 33% of the young child population in the nation (Figure 1; Park et al., 2017).

Figure 1

PERCENT OF U.S. CHILDREN AGES ZERO TO EIGHT WHO ARE EMERGENT BILINGUALS

33%

Nearly 80% of these children come from homes where Spanish is spoken (**Figure 2**; Batalova & Zong, 2016). Young emergent bilingual children are diverse by every measure — language, geography, income, race, ethnicity, family structure, and so on — and are a significant proportion of children served in early learning and early grade systems.

A robust body of research finds that these children have tremendous potential, and that supporting their emerging bilingualism is associated with cognitive, academic, social, cultural, health, and economic benefits across the lifecourse. Informed by this research, the National Academies of Science, Engineering and Medicine identified dual language approaches as optimal educational models for emergent bilinguals (NASEM, 2017, 2023). Yet, access to bilingual education — including dual language immersion programs in which children receive instruction in their home language and English — remains scarce for Latine children and other children of color, with preliminary data indicating that for the relatively scarce available slots, there is a complex array of over- and under-representation of emergent bilinguals depending on the community (Williams et al., 2023). Though there is no complete national database of dual language education in the United States, data from a recent multi-state effort to document such programs indicate that nearly 8% of emergent bilingual students in K–12 are enrolled in dual language programs (**Figure 3**; Williams et al., 2023). There is currently no national data on the number of dual language programs for infants/toddlers and preschoolers in early childhood.

The lack of supply of and accessibility to bilingual education has lasting, negative consequences for emergent bilinguals (Cho & Krashen, 1998), contributing to home language loss and weakened connections to their families (e.g., Fillmore, 2000), reduced self-esteem (Faruk & Rosenbaum, 2022), ineffective instruction and lower expectations (Olvera, 2015), misrepresentations of their skills which often leads to over- and under-referral to special education (e.g., Grant et al., 2009).
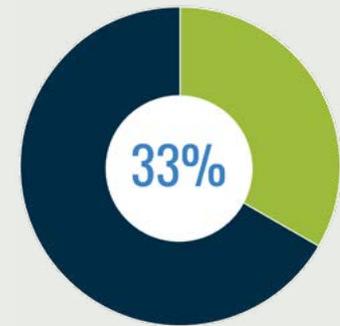
Figure 2

NUMBER OF PEOPLE WHO SPEAK ONE OF THE TOP FIVE LANGUAGES OTHER THAN ENGLISH SPOKEN IN THE U.S.

■ Spanish ■ Mandarin ■ Tagalog ■ Vietnamese ■ Arabic
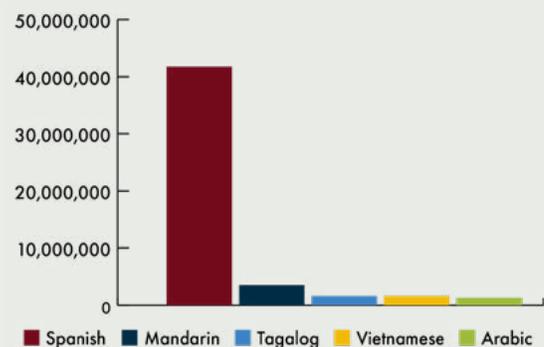
There is strong evidence that dual language programs from pre-Kindergarten (PK)–12th grade, not English-only programs, are the most effective models for children who are emergent bilinguals (e.g., NASEM, 2017; Steele et al. 2017). But the lack of infrastructure in the US early learning and K–12 education systems related to dual language education have led to many of those programs creating their own way, developing their own materials, and figuring it out as they go. Indeed, today, there remains a gap in the operationalization of "high-quality dual language immersion" that goes beyond specific curricula to holistically address the array of programmatic ingredients that make for positive, well-rounded outcomes. This is specifically true for early care and education, with very little published about dual language immersion approaches in settings that care for infants and toddlers and even less about what the trajectory of dual language immersion can look like across infant/toddler care,

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preschool, elementary school, and beyond. To meaningfully expand access to dual language programming, the field needs a common understanding of what high-quality implementation of dual language immersion looks like in diverse settings and across age groups.

Figure 3 PERCENT OF EMERGENT BILINGUALS/ENGLISH LEARNERS IN K–12 PUBLIC SCHOOLS WHO ARE ENROLLED IN DUAL LANGUAGE PROGRAMS

7.9%
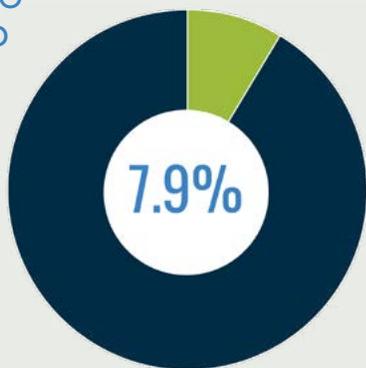
Against this backdrop, the **Children's Equity Project** and **The Century Foundation**, with funding from the W.K. Kellogg Foundation, engaged in a multi-year effort to identify the core ingredients for high-quality dual language immersion programming, with the learning, development, and well-being of emergent bilingual children as the highest priority. In this initial work, we focused on English/Spanish dual language immersion, because though the U.S. is a richly linguistically diverse nation, Spanish is by far the most widely used language after English (U.S. Census, 2022). We completed an exhaustive review of the literature, interviewed dual language program administrators, analyzed data on child outcomes for children enrolled in such models, and convened a group of 20 national experts from around the country. Informed by each of these sources of information

There is strong evidence that dual language programs from PK–12th grade, not English-only programs, are the most effective models for children who are emergent bilinguals.

and expertise, we identified and have articulated seven dimensions of high-quality dual language immersion models for infants/toddlers, preschoolers, and elementary school students. These seven dimensions of high quality include:

1. PROGRAMMATIC STRUCTURES

2. LANGUAGE ALLOCATION

3. CURRICULA, INSTRUCTION, AND PEDAGOGY

4. ASSESSMENT

5. WORKFORCE EDUCATION, CREDENTIALS, AND PROFESSIONAL DEVELOPMENT

6. FAMILY LEADERSHIP AND ENGAGEMENT

7. SERVICES AND INCLUSION FOR EMERGENT BILINGUAL CHILDREN WITH DISABILITIES

This report is divided into two sections. **Part one** provides an overview of important context and core concepts that are at the foundation of this work, including a description of emergent bilinguals in the United States, research on the benefits of bilingualism, a brief overview of the historical context of bilingual education in the United States, and a description of how dual language education fits within a broader framework for equitable child serving systems. **Part two** presents a framework for high-quality dual language education in early learning and early grade systems, informed by a research synthesis, primary data collection, **case studies**, best practice, and national experts. Together, these parts make up a comprehensive and extensive review of dual language education across the infant to early grade continuum, with an emphasis on quality and implementation.

Core Context and Concpets

EMERGENT BILINGUALS: CURRENT DEFINITIONS

Traditionally, researchers and educators have defined bilinguals as those who can speak, understand, write, and read in two languages with the same level of proficiency (e.g., Cummins, 1980). Researchers have found, however, that it is nearly impossible for bilinguals to have perfectly balanced fluency across their two languages. When this rigid definition of bilingualism is used, it reinforces the deficit notion of "semilingualism," or the idea that emergent bilinguals have incomplete language systems across both of their languages (Seltzer et al., 2020). A more asset-based and realistic definition of bilingualism is that bilinguals have one unitary language system (**Figure 4**; García & Lin, 2017). Bilinguals select what language, or languages, and modalities (e.g., spoken, gestures, written communication, etc.) to use based on the context they are in and who their communication partners are (García & Lin, 2017).

Bilingualism is dynamic, meaning that one's fluency changes over time, depending on the topic of conversation and who the communication partner is, including when these communication partners are children's peers.

Bilinguals use their entire language repertoire, or all they know across named languages and modalities to communicate (García & Lin, 2017). For example, a bilingual child might know a lot of vocabulary related to their daily routine in their home language, and vocabulary related to school in English, if that's the way words related to each context have been introduced. What's more, bilinguals, and particularly bilingual children, use their language repertoire flexibly, using different modalities and combining features of each language in one word or utterance. For example, a Spanish-English bilingual child might say, "I want [signs "drink" in American Sign Language] jugo [juice]," or "I was sad whando [when + cuando] you left [waves 'good-bye']." This flexible use of language is called **translanguaging**.

Translanguaging is not to be confused with code-switching (Solorza, 2019), defined as one's use of two languages in one sentence, or during conversational turn-taking (e.g., one response in English, and the next in Mandarin). Of note, code-switching was originally conceptualized by English-speaking White monolingual researchers, while the concept of translanguaging was formulated by individuals who are bilingual themselves (García & Lin, 2017). Code-switching reflects a linear relationship between languages, where there is still separation between the

Figure 4   DYNAMIC BILINGUALISM: TRANSLANGUAGING
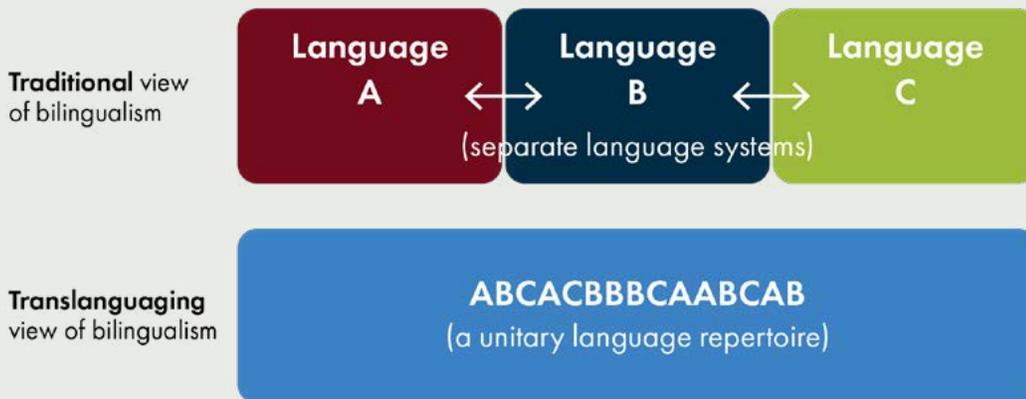
Illustration of dynamic bilingualism, where individuals have a unitary language system with features for each named language (e.g., English, Spanish, Hindi) and non-spoken modalities (e.g., gestures, picture communication, etc.) that make up one's language repertoire. Features are chosen (as shown in the letters strings each of the speech bubbles) based on the context the speaker is in. This choosing of different language features based on the context is called "languaging"— or how individuals actively use language to engage in communication.

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languages; however, translanguaging refers to the dynamic, unified language system that bilinguals use to communicate and make sense of the world. Because translanguaging captures the strengths of bilingual speakers and their ability to move seamlessly among specific languages and modalities, this is a more asset-based conceptualization of bilingualism. Conceptualizing bilingualism from this strength-based approach is central to operationalizing high-quality dual language education for emergent bilinguals, including those with disabilities.

RESEARCH ON THE BENEFITS OF BILINGUALISM

Supporting young emergent bilingual children's home language and English development is associated with several positive outcomes, including academic (Bibler, 2021), cognitive (Bialystok, 2018), and social outcomes (Costa et al., 2008). For example, bilinguals exhibit enhanced cognitive inhibition, or better attention and task-switching abilities than monolinguals; some researchers hypothesize that bilinguals' experiences inhibiting a language and activating the other contributes to these cognitive benefits (Marian & Shook, 2012). Research has shown that this cognitive flexibility starts as young as seven months old (Kovács & Mehler, 2009). The results of an eye-tracking study comparing monolingual and bilingual infants showed that only the bilingual infants responded to the new stimuli that was presented to them, indicating that bilingualism contributes to cognitive flexibility at an early age (Kovács & Mehler, 2009). The findings from this study are significant, as they show that being exposed to two languages in the early years yields general cognitive advantages, even before children develop speech. Other studies show that bilingual children also tend to perform better on tests requiring problem-solving, working memory, and adaptation (Bialystok, 2011; Landry et al., 2009). It should be noted, however, that the amount and quality of language exposure has been shown to impact the bilingual advantages children experience, with those exposed to a language for a longer period of time and in highly interactive environments, developing more fluent bilingual abilities (e.g., Gamez & Levine, 2013).

Socially, bilingual children also show enhanced socio-emotional development, with more conflict-resolution skills (Costa et al., 2008), more interactive play, and less demonstrated frustration (Williams et al., 2021). Culture and

Bilingualism is Like a Growing a Garden

Young emergent bilinguals' language skills grow like a garden, with an impressive transformation starting with babbles and words that blossom and become more complex sentences and vocabulary. But just like a garden, young children's language skills need to be tended to in order to maximize their beauty and potential. Tending to children's bilingualism entails offering them opportunities to be in environments where they are exposed to both their languages in meaningful and rich ways. For example, reading stories and singing songs in their two languages, bridging vocabulary across languages, and making connections about what's similar and different across their languages in ways that are playful and encourage children to be curious about different languages. Watering their garden looks like collaborating with families to ensure they support children's home language development and understand the value of bilingualism. When emergent bilinguals receive instruction bilingually, they learn English faster and show better academic outcomes than those who only receive English support (Steele et al., 2017). Unfortunately, most only receive instruction in English, which interfere with or hamper their academic achievement, lead to home language loss, and negatively impact their social-emotional well-being and attachment to their families. So, to ensure that emergent bilingual children's gardens are as abundant, healthy, and dynamic as they can be, supporting their bilingual development must be a priority.

language are closely intertwined, and profoundly impact positive identity development, including racial and ethnic identity development (Williams et al., 2021). For emergent bilingual children, bilingualism is an important part of their identity, and supporting their bilingualism can strengthen their connections to their cultures, heritage, and communities (Carrillo, 2020). Research has found that young bilingual children who sustain and build upon their home language have a greater capacity to maintain strong connections to their families and cultures, which is positively associated with self-esteem (Mueller et al., 2020). What's more, children's

positive ethnic-racial identity can also be a protective factor against externalizing behaviors when they are in environments where families are experiencing sociocultural risk factors such as families facing discrimination or economic hardship (Williams et al., 2023b).

Emergent bilinguals who receive instruction through high-quality dual language models learn English faster and show better academic outcomes in English than those who only receive English support.

Research has also found long-term economic benefits to bilingualism, particularly when individuals are fluent in both their language and English. For example, Rumbaut (2014) found that fluent bilinguals earn about $2,200 more than their monolingual peers, even when GPA and level of education remain constant. Another study found that Latine bilingual individuals who maintained their home language over time, were more likely to attend a four-year institution of higher education than their peers who lost their home language over time (Santibañez, & Zárate, 2014). This is a critical point because Latines have among the lowest rates of college completion, and some scholars point to the difficulties transferring and matriculating from community colleges to universities as one contributor (Gándara, 2018). In our increasingly expanding global society, there is a greater demand for bi/multilingual employees. In a 2014 survey by the American Council on the Teaching of Foreign Languages (2019), nine out of 10 U.S. employers reported that they rely on U.S.-based employees who have skills in languages other than English, 56% indicated that there will be increased demand for bilingual employees in the next five years, and one in four lost business due to a lack of staff who spoke a language other than English. Creating a bilingual workforce apt to contribute to the U.S. economy and meet the demands of a more globalized society requires high-quality dual language education for young emergent bilinguals.

Dual language education is a powerful approach to fostering bilingualism and biliteracy, alongside academic content more broadly, particularly for emergent bilingual children. Emergent bilinguals who receive instruction through high-quality dual language models learn English faster and show better academic outcomes in English than those who only receive

Research on the Benefits of Bilingualism

(Bialystok, 2011; Costa et al., 2008)

- Increased cognitive inhibition
- Better working memory
- Cognitive flexibility
- Greater adaptability
- Increased problem-solving skills
- Enhanced conflict-resolution skills
- Stronger connections to family and culture
- Improved self-esteem
- Greater academic achievement and access to higher education
- Better work compensation
- Improved capacity to meet employers' needs to compete in a globalized economy

English support (e.g., Barnett et al., 2007). Unfortunately, most emergent bilinguals only receive instruction in English, which limits their bilingual development and may contribute to home language loss. Home language loss has the potential to negatively impact socio-emotional well-being and family connections. Wright (2004) interviewed 10 Cambodian Americans who did not receive a bilingual education when they moved to the U.S. and attended California public schools. Many of these Cambodian Americans reported losing their home language and connections to their families, in addition to struggling in college because of its English demands with limited support in their home language.

Whereas all children can benefit from bilingualism, children who come from homes where languages other than or in addition to English are spoken, and those who are from historically marginalized groups (including Latine, Black, Indigenous, Asian, and other children of color), have more to gain from dual language education and more to lose from lacking access. Access to bilingual programming is more critical for these children because it can determine the extent of access they have to the public education system in general, including their ability to understand instruction, access the curriculum, and form relationships with their teachers—critical dimensions of school success. It may also impact the extent to which families can directly engage with children on their learning and the teacher-parent relationship. In contrast, for native English speakers, bilingual programming enriches their

What is Raciolinguistics?

Raciolinguistic refers to the connections between one's race and language(s) (Alim et al., 2016). To better understand the term raciolinguistics, we must first define race. The human genome project found that there are no biological differences between people across racial categories (Hastings & Jacob, 2016), and that there is more variation within racial groups than across them. Race, therefore, is a social construct, not a biological one. This construct was created to uphold the ideology of White supremacy, which categorizes human beings onto a social hierarchy based on skin color, hair texture, etc. The grouping of individuals based on these characteristics and their place on the hierarchy determines their access to resources and the fundamental rights and freedoms they enjoy. This hierarchy and the concept of race itself was created to hoard resources and advantage people at the top, White people (primarily, wealthy, non-disabled, White men) and disadvantage everyone else.

Raciolinguistics refers to how one's racialization (i.e., how society perceives one's race) impacts the value society places in one's language practices (Rosa & Flores, 2015). For example, White English speakers who learn some Spanish might be perceived as intelligent and gifted, while a bilingual Indigenous Latine or Afro-Latine person who speaks English that's perceived to be accented or a Caribbean version of Spanish might be perceived as having incomplete or unprofessional versions of both languages. This example highlights how perceptions of an individual's language use is connected to how they are racialized. People whose racialization is advantaged are more likely to also have their language practices admired.

Developing a positive raciolinguistic identity means one understands the different values placed in one's race and language(s), and that one interrupts negative ideologies about one's identities by seeing these as assets rather than as language practices that need to be remediated to sound more "professional," "complete," "academic" or "less accented" (Lippi-Green, 2012; Soto-Boykin et al., 2021a). Supporting children's positive raciolinguistic identities in early care and education is important because it can help maintain children's home language(s) in contexts where English is preferred, explicitly or implicitly, and can help build children's self-esteem as bilinguals.

education, but lack of access does not fundamentally hamper their access to education. However, only 8% of English Learners in K–12 have access to dual language education (Williams et al., 2023).

THE CEP'S ACCESS, EXPERIENCES, AND OUTCOMES FRAMEWORK: DUAL LANGUAGE EDUCATION

The Children's Equity Project developed and applies the "Access, Experiences, and Outcomes" framework (**Figure 5**) to our work across systems and policies. The framework states that a fair, quality system for children and families is informed by history and addresses: 1) equitable access to resources, services, and supports; 2) experiences that are affirming, fair, and positive; and 3) outcomes that are not associated with children's demographic characteristics- including race, language, disability, income, gender, and so on.

We apply the AEO frame to our work on expanding access to quality dual language education.

Equitable **access** to dual language education for emergent bilingual children is critical to ensuring equal educational opportunity (Castro & Meek, 2022). Simply stated, an education system that, by default, operates exclusively in English, advantages children whose first and primary language is English, and disadvantages all others. As such, lack of supply of dual language programs across the early childhood and K–12 education systems is particularly problematic for emergent bilingual children. In some communities, dual language education is available, but emergent bilingual children who speak languages other than English at home are not prioritized and are often underrepresented in enrollment (Williams & Meek, 2023). This inequitable access to dual language education widens opportunity gaps by negatively impacting emergent bilinguals' access to a curriculum and instruction in a language they understand, and by unevenly distributing the many

Figure 5   A-E-O FRAMEWORK

EQUITY IN CHILD-SERVING SYSTEMS

Equitable **ACCESS** to resources, services, and supports

Positive, fair, and affirming **EXPERIENCES** within systems

OUTCOMES not associated with demographic characteristics

Meek et al., 2020

> Until dual language education is universally available to all students who want it, it is critical that policymakers prioritize emergent bilingual children's access to dual language education.

benefits of bilingualism and biliteracy to children who speak English at home. For native English speakers, dual language education is an enrichment; without it, they *do not* lose access to the basic educational curriculum (Chávez-Moreno, 2021). On the other hand, lack of access to dual language education for emergent bilinguals *does* fundamentally impact their access to the basic education curriculum. Until dual language education is universally available to all students who want it, it is critical that policymakers prioritize emergent bilingual children's access to dual language education.

Beyond the question of access to dual language education is the equally important question of the **experiences** children have in these programs; that is, the quality of programming, staff, and the environment. It is critical that pedagogy, instruction, policies, family engagement practices, and so on, are aligned with child development and learning science and with research on bilingualism, dual language development, and dual language education. Poor quality instruction provided in two languages will not result in the experiences and outcomes emergent bilingual children need and deserve. This report provides the first comprehensive framework operationalizing quality in dual language education across the infant/toddler through early grade continuum, informed by an exhaustive review of the literature, systematic interviews with program administrators, data analysis of dual language programs, and the input of over 20 national experts in communities across the United States.

Equitable access to and high-quality experiences in dual language programs can meaningfully reduce gaps in opportunity and in outcomes between some emergent bilingual children and their monolingual English-speaking peers (NASEM, 2023).

HISTORICAL CONTEXT OF BILINGUAL EDUCATION

The history of bilingual education in the United States has been mixed depending on the time period and language in question, though unquestionably, much of that history has been contentious and marked by colonialism, xenophobia, and nationalism (Nieto, 2009; Rosa & Flores, 2017).

In the mid-1800s, there was a rise of bilingual education programs, with Ohio being the first state to authorize German-English schools in 1839; New Mexico followed with Spanish-English programs in 1850. Indigenous languages never received the same acceptance or support. Throughout the 19th and into the 20th centuries, the U.S. government forced Indigenous people to forego their native languages to only speak English (Nieto, 2009). These practices and policies were codified and implemented through the creation of boarding schools, where Indigenous children were forcibly removed from their families and placed into settings away from home where they were required to forgo their cultural traditions, languages, and identities (Administration of Children & Families, 2021). These schools operated for over 150 years across 37 U.S. states (Newland, 2022) and caused both language loss and deep, intergenerational trauma for thousands of Indigenous families.

After the Mexican American War ended in 1848, as part of the Treaty of Guadalupe Hidalgo, Mexico ceded over half of its territory — including modern-day California, Nevada, Utah, and New Mexico, in addition to parts of Arizona, Colorado, Kansas, Oklahoma, and Wyoming. The language of commerce became English, immediately disadvantaging the Spanish-speaking population who lived on that land. In much of the Southwest and California. "Mexican schools" were established to educate children of Mexican origin segregated from their white, English-speaking peers (Hodgson, 2022; Powers, 2008). In 1946, a major case regarding school segregation was brought by Mexican-American families challenging these separate schools in California in the *Mendez v. Westimenter* case. The families were successful, and the case was one of many that paved the way for *Brown v. Board of Education* in the Supreme Court.

By the mid-1920s, German and other bilingual programs were dismantled as supporters of assimilation pointed to fears of "national division" following World War I. It wasn't until nearly half a century later that the Civil Rights Movement spurred the passing of the landmark Bilingual Education Act (BEA; Nieto, 2009; Vile, 2009). The BEA provided federal funding to encourage local school districts to implement different types of bilingual education programs. However, implementation of these programs was limited as participation was voluntary. Five years later, in the Supreme Court case *Lau v. Nichols* (1974), it was determined that public schools had to provide English Learners (ELs) with supplemental language instruction and that segregating ELs was unconstitutional. This decision was followed by the passing of the Equal Educational Opportunities Act of 1974, which protects faculty and students in public schools from facing discrimination and requires school districts to prohibit racial segregation and enact "appropriate action" to overcome barriers that hinder their equal participation. In 1981, the *Castañeda v. Pickard* case determined that bilingual programs needed to pass a three-prong test, where programs had to be 1) theoretically sound; 2) implemented effectively with appropriate personnel, instructional materials, space, and resources; and 3) effective in overcoming language barriers after a trial period.

In the 1980s, President Ronald Reagan signed legislation to limit the funding for bilingual programming under BEA (Nieto, 2009). This reduction in funding emerged as sociopolitical shifts in favor of English-only acquisition rose again. In 1994, President Clinton re-authorized the BEA, providing additional funding to bilingual programs, but in 2001, it was eliminated as part of the No Child Left Behind Act (NCLB). The new education law prioritized high-stakes English

standard assessments and the measurement of ELs' annual progress toward English acquisition, contributing to a decline in bilingual programming (Crawford, 2008; Nieto, 2000). What's more, the word "bilingual" was eliminated from NCLB, renaming the federal Office of Bilingual Education and Minority Language Affairs as the Office of English Language Acquisition, Language Enhancement, and Academic Achievement for Limited-English Proficient Students (Crawford, 2008).

Between the late 1990s and early 2000s, bilingual education was strategically attacked by politicians and other wealthy political influencers (Ryan, 2001). One of the most notorious figures in the anti-bilingual education movement was Ron Unz, a millionaire who ran for California governor (Ryan, 2011). Unz spearheaded the passage of California's Proposition 227 to ban bilingual education, funding and leading political initiatives to support anti-bilingual initiatives. This anti-bilingual law in California, rooted in xenophobia and misinformation, inspired similar legislation in Massachusetts and Arizona.

At the federal level, the 2015 passage of the Every Student Succeeds Act (ESSA) reinstated that children could be assessed in the language(s) they spoke most fluently. English-only laws were repealed in California and Massachusetts in 2016 and 2019, respectively. Arizona remains the only state that continues to have an English-only law (Proposition 203) as of 2023. Most recently, Arizona's recently elected Superintendent of Public Instruction, Tom Horne, opposed bilingual education for ELs, threatening to remove funding from public schools that offer dual language instruction to children who are English Learners (Gonzalez, 2023).

This polemic history and current ideological opposition have reified misconceptions about bilingual education and trickled down to early care and education. Many young emergent bilinguals are now denied opportunities to receive dual language education, and several early learning standards across States only mention them minimally (e.g., Meek et al., 2023). It is important to note that although the notion of a bilingual/multilingual nation has been contentious in the United States, bilingual education and recognizing multilingualism as the norm is commonplace across several nations, with 55 countries having two or more official languages (e.g., Canada, India, Paraguay, New Zealand, Ireland, Haiti, etc.) (Compendium of Language Maintenance in Canada, 2023) and many more offering learning opportunities across several languages.

A Research-Informed Framework for High-Quality Dual Language Immersion

FROM THE EARLY YEARS TO THE EARLY GRADES

Research has identified several benefits of bilingualism, including cognitive benefits early in life, social, emotional, and academic benefits in childhood, economic benefits in adulthood, and even health benefits in old age (e.g., Bialystok, 2011).

Perhaps not surprisingly, studies show that emergent bilinguals who receive high-quality dual language instruction in elementary school outperform those who only receive English instruction, and that by middle school, they are less likely to be classified as "English Learners" (e.g., Padilla et al., 2022; Steele et al., 2017). But these gains depend on a number of factors, including access to high-quality experiences and instruction in dual language settings. Currently, the field lacks consensus on what constitutes high-quality dual language education. Many (but not enough) dual language programs exist across the United States, but their approaches, quality, resources, instruction, curricula, and so on, differ.

The field lacks a coherent and holistic set of ingredients that constitute "high-quality" dual language education. A common set of ingredients can inform strategic scaling of dual language education programs, with considerations for and attention to quality control, and enable the field to move forward, toward a common vision together. This report aims to advance a framework that articulates seven core ingredients for dual language education programs, informed by previous efforts, peer-reviewed research, data, program administrators and bilingual educators, policy experts, and practitioners. We present seven key ingredients, stressing that these are core and fundamental, not all-inclusive or exhaustive considerations. Indeed, community context — including parent preferences, culture, resources, and language diversity — matters deeply, and individualization based on that context is critical for success. In the following section, we will define each of the seven foundational ingredients for high-quality dual language education and provide observable, measurable, concrete indicators of quality. The Children's Equity Project will publish accompanying implementation tools over the course of the next two years to refine the framework and support implementation.

Most of our research and review focused on dual language education delivered in English and Spanish; thus, the framework is most applicable to English/Spanish programs, but it may also be informative to programs using other languages. In addition, most of the research conducted for this framework focused on dual language settings, not multilingual settings that provide instruction in three or more languages. While the most commonly spoken language in the United States other than English is Spanish, there are many communities that are richly linguistically diverse where promoting children's home language(s) through instruction requires additional steps and considerations not fully explored here; forthcoming work from the Children's Equity Project will more deeply explore these complex scenarios.

This framework focuses on operationalizing programmatic practices and policies and is most directly applicable to the work of local, school, and programmatic early learning and early grade leaders, including superintendents, school principals, childcare directors and administrators, Head Start and Early Head Start grantees, and the many teachers, instructional leaders, and support staff who engage with children and families every day. Local leaders can use this framework as a guide to examine their own practices and policies.

Because of this "ground level" emphasis, this report focuses less on state and federal policies. The Children's Equity Project, The Century Foundation, and our many partners have written extensively on the policy conditions needed to advance dual language education, including:

- having federal, state, and local leadership who support bilingualism, specifically for emergent bilingual children, and codifying support across policy levers;
- ensuring adequate federal and state funding;
- investing in a prepared, supported bilingual educator pathway;
- utilizing federal civil rights laws to protect English Learners from segregation and poor quality, English-only programming;
- requiring data collection on young emergent bilingual children and on the availability and access to dual language education programs;
- translating instructional tools into the many languages spoken in the United States;
- embedding indicators for emergent bilingual children across state policies, including state childcare licensing, state PK and early grade standards, state early learning guidelines, state quality rating and improvement systems, state quality investments, and state professional development and coaching infrastructure.

Forthcoming work from the Children's Equity Project, The Century Foundation, and our partners will reiterate and continue articulating clear federal, state, and local policy agendas to expand access to dual language education for all emergent bilingual children.

Operationalizing High-Quality Dual Language Programming: From the Early Years to the Early Grades
The Children's Equity Project & The Century Foundation

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Texas, Utah, and California are part of a number of states with legislation, fiscal initiatives, and programming geared toward the promotion of bilingualism and biliteracy of children who are emergent bilinguals/ELs. These examples show the different ways that legislation, funding, and research can be leveraged to ensure that children who are emergent bilinguals/ELs receive the type of bilingual instruction that is most likely to yield positive academic outcomes.

- Texas is a pioneer in bilingual education. In 1981, they passed the Texas Education Act requiring school districts to offer all children who are emergent bilinguals/English Learners (ELs) in PK–12 grade with bilingual education if 20 or more children speak the same home language. Four bilingual models are offered: transitional bilingual education (TBE), integrated TBE, two way-immersion, and one-way immersion. If fewer than 20 students, school districts must provide children with English as a Second Language (ESL) model.

- In 2008, Utah passed legislation to offer incentives to schools and districts to implement mandatory one-way and two-way bilingual immersion programs in the elementary years.

- In California, after the repeal of an English-only law in 2016, state legislators and leaders have worked to articulate a vision of a California that embraces bilingualism through its Global California 2030 Initiative. They created the Dual Language Immersion Grant Program to expand the number of DLI programs in the state. In 2021, they passed legislation to provide a one-time $10 million investment they anticipate will launch 55 new DLI programs by 2030. Although this is a modest allocation, it should be noted that it falls short of other states such as Utah, committed more than $5 million to its DLI programs in 2023, and appropriated more than $7.3 million for 2024. Maryland legislators are currently considering a bill to invest $10 million annually into DLI program expansion by 2025, and in Delaware, the state has invested between $1.6 to 1.9 million annually in DLI expansion since 2012.

- In 2018, the California State Budget included a one-time $5 million investment to fund the Dual Language Learner Professional Development (DLL-PD) initiative. The goal of DLL-PD was to provide early childhood educators with professional development on emergent bilinguals between zero to five years old. Six grantee programs were funded between February 2019 to June 2020. Over 1000 educators (48% of color) from a variety of settings, including center based and family childcare homes, were trained on how to provide effective strategies for instruction and family engagement when serving children who are emergent bilinguals. It should be noted that further funding is needed to sustain and expand these PD opportunities to more early childhood educators in California.

OUR APPROACH

We utilized four diverse primary sources of information to inform the framework. These sources are approaches are outlined below:

1. First, we conducted an exhaustive review of the existing literature on dual language education. In all, we reviewed over 170 articles, enabling us to identify themes, learnings, and gaps in the peer-reviewed research.

2. Second, we conducted 11 interviews with dual language education programs serving children, ranging from infancy to the early grades. We asked program administrators about their policies, enrollment, instructional approaches and pedagogy, curriculum and assessment practices, family engagement efforts, workforce preparation and development, and more.

3. Third, we analyzed child- and educator-level data from the programs we interviewed to better understand how children served in these programs were progressing toward reaching developmental (for younger children) and academic milestones (for older children). We noted themes across interviewees and trends in the data.

4. Fourth, we convened a group of national experts — including educators, administrators, policy makers, researchers, and families, for a day-long convening to critically review the data and research, explore themes, draw lessons learned, and refine the seven major indicators for quality.

The framework presented in **Figure 6** is informed by each of these complementary sources of information and by the many experts who were part of the process.

Figure 6

FRAMEWORK FOR HIGH-QUALITY DUAL LANGUAGE IMMERSION: FROM THE EARLY YEARS TO THE EARLY GRADES

- Programmatic Structures
- Language Allocation
- Curricula, Instruction, and Pedagogy
- Assessment
- Workforce Education, Credentials, and Professional Development
- Family Leadership and Engagement
- Services and Inclusion for Emergent Bilingual Children with Disabilities
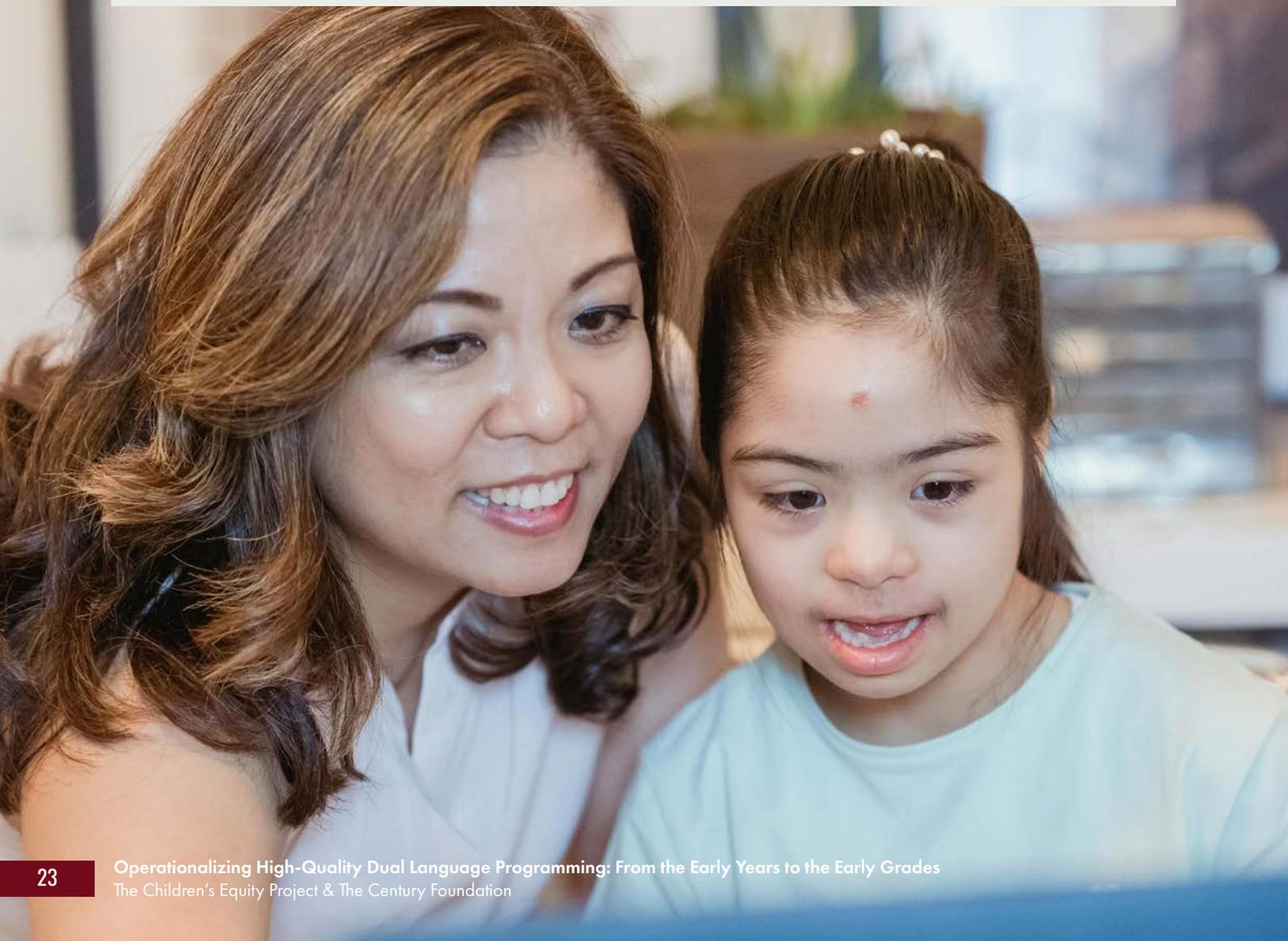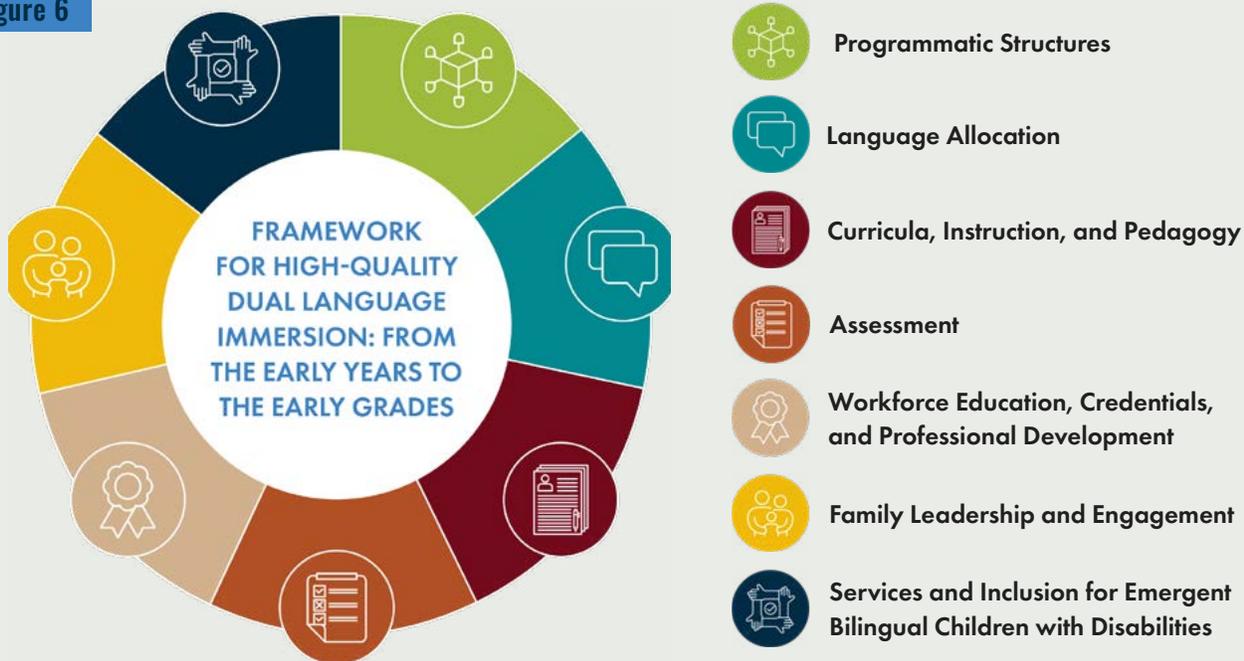
PROGRAMMATIC STRUCTURES

Overview

Programmatic structures consist of core infrastructure indicators that impact all program operations- including leadership (who and how), program philosophy and its connection to practice, school/program climate, budgets that reflect support for dual language implementation, and policies that dictate enrollment, pedagogy, workforce support, family partnerships, community engagement, and so on. These programmatic structures are foundational for creating and sustaining programs where children's bilingualism, biliteracy, biculturalism, and overall development and learning are fostered to ensure young emergent bilinguals reach their fullest potential.

Quality Indicators

- The leadership team is representative of the community of the families served (e.g., racial, ethnic, and linguistic representation).
- The leadership team is made up of individuals with diverse roles that are explicitly defined and include:
  – Program leaders (e.g., administrators, directors, principals)
  – Bilingual education lead (e.g., bilingual education specialists)
  – Workforce support personnel (e.g., instructional coaches, reading specialists, mental health and socioemotional coaches, etc.)
  – Educators (e.g., lead teachers)
  – Disability coordinators (e.g., inclusion coaches or inclusion coordinators)
  – Community and family engagement coordinators
  – Data and evaluation leads
- In smaller programs, leaders may hold more than one role. These roles may also differ depending on the type of setting and ages of children served. For example, instructional coaches and literacy support staff may be particularly relevant in preschool and early grade settings.

- Everyone on the leadership team has training on the value of bilingualism and bilingual education and understands the research behind this approach to ensure there is cohesive buy-in and support for the program.
- The program has a vision and mission with an explicit commitment to provide emergent bilinguals with a high-quality education that promotes their bilingualism, biliteracy, and positive raciolinguistic identities.
- The vision and mission are articulated actionably, implemented across all of the program's/school's practices, policies, and programmatic decisions, and communicated with families and all staff (educators, aides, bus drivers, cafeteria staff, janitorial staff).
- The program or school offers continuous dual language programming instead of only providing DLI instruction for one age group.
- Administrators partner with families and local dual language programs or schools to help children continue to receive dual language instruction once they transition from the program or school.
- The program has a written equitable enrollment policy that prioritizes enrollment from children from the community who speak the school or program's partner language, particularly those who are heritage bilinguals, those living in poverty, and/or are children with disabilities. In 50/50 models attempting to balance native English speakers with native speakers of the partner language, schools and programs pay special attention to ensuring that the number of Black and other children of color who are English monolinguals are proportionately represented, based on the community's demographics.
- This enrollment policy is transparently communicated to parents in the language(s) and modalities (written, verbal, etc.) they understand.
- Children with suspected or identified disabilities who are also emergent bilinguals are not excluded from enrollment explicitly or implicitly by requiring children meet a certain language fluency criteria before enrolling.

- The program has a handbook available in all the languages represented in the program with explicit policies and systems to address positive family partnerships, services and inclusion for children with disabilities, positive behavior support and school climate policies, required and ongoing professional development content for staff, instructional approaches and pedagogy, and other key information for staff and families.

- The program is attentive to and works toward racial and linguistic equity in the co-teaching arrangements, ensuring that teachers who speak and teach the partner language to English (e.g., Spanish) with similar experience have at least equal compensation, and similar positions, titles, and roles (e.g., lead teachers) as their English teaching peers.

- Child-level and classroom-level data are used to continuously inform quality improvement, with particular attention to how teaching practices, adult-child interactions, and the learning environment impact children's learning and development, including bilingual development.

- Data are used to inform decision-making, including to conduct program-wide strategic planning, to adapt instruction based on each child's strengths and areas of growth, and to establish professional development goals and priorities for educators.

- Data are shared with families to promote their participation and co-decision making related to their children's strengths and continued areas for growth.

- The program implements an additive bilingual approach where the explicit goal is bilingualism — and for older children, biliteracy — through child-centered, evidence-informed, culturally affirming pedagogy and instruction and in partnership with families.

Research

There is currently little published research on key programmatic structures necessary for bilingual programs in the early years and the early grades. The findings of existing research are presented below.

VISION AND MISSION

There has been limited research on the types of visions and missions that lead to the most successful dual language programs for young emergent bilinguals. However, there is common consensus that the three pillars of bilingual education are to promote children's bilingualism, biliteracy, and biculturalism. Most recently, a number of scholars have advocated for the need to add a fourth dimension to bilingual education to encourage children to have critical consciousness about the value of one's home language to resist ideologies that place English as superior to other languages (e.g., Cervantes-Soon et al., 2017; Heiman & Yanes, 2018). Continued research is needed to determine what types of visions and missions are most critical for dual language programs, and most importantly, how to align them with policies, procedures, and priorities that lead to equitable access, experiences, and outcomes for emergent bilinguals.

LEADERSHIP TEAM

There is also limited research on what constitutes a strong leadership team in dual language programs in early care and education. There is emerging research suggesting that high-quality dual language education programs have a coordinated approach, with a leadership team that has outlined roles including administrators and directors, instructional support staff, data evaluators, family leadership and engagement directors, student service directors (e.g., food and nutrition, mental health consultant, etc.), and inclusion coaches (Howard et al., 2018). Research has also found that having a leadership team that is representative of the community it serves, with processes in place to ensure that the voices and priorities of the families who speak a language other than English are valued and centered, is important (Howard et al., 2018). There is also growing evidence that dual language programs are most successful when the leadership team is equally invested in them (Palmer, 2010). For example, when dual language programs are constrained to one classroom but the rest of the school is English-only, research indicates that leaders' buy-in can be a challenge to successful implementation (Palmer, 2010). Further research is needed to determine the most effective practices for leadership teams in dual language programming and how to provide these leaders with professional development to ensure a strong commitment to bilingualism.

PROGRAMMATIC POLICIES

The bulk of research on programmatic structures in dual language programs has focused on equitable enrollment policies (e.g., Williams et al., 2023). Current research indicates that inequities exist in who has access to these dual language education (Morita-Mullaney & Chestnut, 2022; Palmer, 2010; Williams et al., 2023). As dual language immersion (DLI) programs expand, some data indicates that White children who are heritage English speakers from middle-to-upper class are more likely to have greater access to these programs (Chavez-Moreno, 2021). Factors contributing to this potential overrepresentation of White children in these DLI programs include: (1) policies requiring

children to meet a certain level of English proficiency to qualify for enrollment; (2) advertisements for these programs targeting English speakers instead of those of families who speak a language other than or in addition to English at home; (3) programs located in communities with greater resources, higher incomes, and higher numbers of English speakers; and (4) lower expectations for Latine children and emergent bilinguals that impact perceptions of their ability to be successful in dual language models. Other data indicate that while the vast majority (over 90%) of emergent bilinguals labeled as English Learners in K–12 do not have access to dual language education, they represent a larger proportion of those enrolled in these programs (Williams et al., 2023). These findings are substantiated by Henderson (2019)'s mixed method study of dual language teachers' perceptions of who was an appropriate candidate for bilingual education. The teachers in this study varied in who they felt as an appropriate

candidate for dual language education: Some believed all children, including English Learners, had the right to dual language education, while many others believed that these programs should only be for those who are linguistically and academically gifted.

The findings of this study highlight the importance of ensuring that programs' policies do not prevent English Learners from accessing dual language programs. Furthermore, it is important for enrollment policies to not be color-evasive, focusing only on one dimension of diversity (e.g., language), rather than other intersecting dimensions of diversity such as race and ethnicity, income, disability status, etc (Scanlan & Palmer, 2009). This consideration of identities beyond language when making enrollment decisions is crucial, because Black children and those with disabilities are often excluded from DLI programming (Palmer, 2010). According to

Promoting Equitable Access to Dual Language Education for Black Children and Families

Black children — including Black American children who are monolingual English speakers, those who are Black and speak a language other than English at home (e.g., Haitian Creole), and Afro-Latine children and their families — are seldom mentioned when discussing equitable enrollment in dual language education programs (Frieson, 2022). These children are also chronically underrepresented in dual language programs (Center for Applied Linguistics, n.d.). For example, Black American English-speaking children make up less than 5% of enrollment in K–12 dual language programs (Center for Applied Linguistics, n.d.). Deficit-based ideologies about Black children's language skills contribute in part to this lack of equitable enrollment (Gross, 2016). These ideologies include the false idea that Black monolingual children who speak African American English need to learn Standardized American English before they are enrolled in a dual language program and that they are not "appropriate English language models" (Gross, 2016). For children who are Afro-Latine, this ideology also includes the negative attitudes about the varieties of Spanish that have Africanized linguistic roots (e.g., Dominican Spanish, Puerto Rican Spanish, Afro-Paraguayan Spanish, etc.), as these varieties are often perceived as less proper or incomplete versions of Spanish (Aponte, 2024; Lipski, 2008; Rosa & Flores, 2017). Researchers note that when dual language education is framed as a White-Brown binary or an issue of language alone, that this erases the needs and experiences of Black children and families (Frieson, 2022; Smith, 2021). Examples of this exclusion of Black children and families in dual language programs include: (1) assuming that heritage language speakers are White; (2) erasing the experiences of Afro-Latines (e.g., using curricula developed in Spain but not including the expertise of Afro-Latine in the curricula and instruction); (3) ignoring varieties of English (e.g., African American English) or varieties of other languages (e.g., Dominican Spanish); and (4) focusing only on language as an identity without acknowledging the intersections between language, ethnicity, race, and immigration status (Flores, 2016). High-quality Spanish-English dual language education programs must intentionally prioritize the enrollment of Black heritage English-speaking children and Afro-Latine children (Brann, 2024), recruit and retain Black educators (both Black American and Afro-Latines), and embed Black cultural, racial, and linguistic identity as a central part of the curricula, instruction, family engagement, etc.

> **The consideration of identities beyond language when making enrollment decisions is crucial, because Black children and those with disabilities are often excluded from DLI programming.**

the Center of Applied Linguistics' (n.d.) Directory of Two-Way Immersion Programs, only 13 of 355 programs have 50% or more Black children enrolled. From 189 programs reviewed, Black children make up less than 5% of the heritage English-speaking population. This data, in conjunction with existing research on enrollment in dual language programs, highlights the needs to explicitly address equity when creating and implementing enrollment policies.

Growing research indicates that lottery systems in which a specific number of slots are allocated for emergent bilinguals who come from homes where a language other than English is spoken can create more equitable enrollment (Marcus, 2021). As neighborhoods change, schools and program leaders can implement a weighted lottery mechanism with priority given to children who speak a language other than English at home, those living in poverty, those of diverse racial and ethnic backgrounds, and those with disabilities. Additionally, implementing dual language as a whole school model—rather than just a specific strand of a campus' classrooms—is another way of building toward more equitable access to programs. Research has found that when dual language programs are only a strand of a larger, primarily English-speaking community, Black children, and those with disabilities, are more likely to be excluded from dual language programming (Palmer, 2010).

Finally, considering the labels used to qualify children for dual language instruction is also important (Marcus, 2021). For example, changing the term from "Spanish-dominant" to "Spanish-speaking emergent bilingual" is likely to expand who has access to dual language programs. Early access to dual language programming is important because it has long-term academic benefits. For example, Steele and colleagues (2017) found that by 6th and 7th grade, emergent bilinguals and given access to dual language programs in early elementary through a lottery system had higher reading scores and were less likely to be English Learners

than those who were not given access to bilingual programs. Finally, Umansky and Reardon (2014) found that, over time, Spanish-speaking Latine children enrolled in bilingual settings were more likely to reach English proficiency and pass state literacy assessments than peers in English-only settings. These preliminary findings highlight why equitable access to dual language programs is an important component of high-quality bilingual programming that cannot be overlooked.

Presently, there is very scarce research examining the types of policies — beyond language and enrollment policies — found in, and needed to successfully operate, dual language programs. These additional policies include explicit attention to children with disabilities, including policies that exist to address the non-discriminatory enrollment of children with disabilities (e.g., requiring potty training for enrollment); clear screening, referral, and evaluation procedures; ensuring all personnel, physical spaces, and learning materials are accessible; establishing close relationships with early interventionists, special educators, and related service providers; and ensuring professional development and ongoing support for staff to engage in high-quality inclusive practices that address both their bilingualism and overall development (Meek et al., 2022). Policies must also address racial inequities that have been well documented in early learning and early grade spaces, including systematic professional development and ongoing support on racial equity and bias, prohibiting harsh discipline, and ensuring adequate mental health support for teachers, children, and families (Meek et al., 2022).

Research Gaps and Future Directions

There is a gap in the current literature on the programmatic structures that make up high-quality bilingual education in early care and education. There is a growing body of research focusing on the role of equitable enrollment in bilingual programs; however, the bulk of these studies have focused on K–12 schools. Future studies should address the features of programmatic structures needed to successfully and equitably implement and sustain bilingual programs serving young emergent bilinguals, particularly as programs differ vastly in terms of their setting, composition, requirements, and funding sources.

LANGUAGE ALLOCATION

Overview

High-quality DLI programs serving young children have additive language allocation models that ensure adequate exposure to both languages, which may vary depending on children's age and the composition of languages represented in the classroom. Languages may be allocated by teacher, by time (e.g., half days in each language), by subject area (for older students), or by all of these. The language allocation model is additive, clearly defined, and planned. Educators are trained to implement the model with high fidelity. Translanguaging pedagogies are defined and purposefully implemented in the context of each language's allocated time and space and are the subject of ongoing training and professional development.

Quality Indicatorsv

The administrators and other relevant leaders of the program have a written plan articulating how the languages will be allocated based on the ages of the children.

- **Infants and toddlers** receive instruction by a bilingual caregiver who provides high-quality exposure to the child's home language and English, through warm, one-on-one interactions.
- **Preschoolers** receive 50% of instruction in English and 50% in the partner language (e.g., Spanish, Mandarin) from a bilingual teacher(s) or two or more monolingual co-teachers (e.g., one English teacher and one Spanish teacher) who coordinate instruction to implement cross linguistic strategies (see Instruction section) in their target language.
- **Early grade students** receive 50% of instruction in English and 50% of instruction in the partner language (e.g., Spanish, Mandarin), distributing the way the languages are presented using one or multiple of these approaches:
  - A co-teaching model in which half of the instruction happens in English and the other half in the partner language during the day, with each teacher leading a portion of the day and both teachers using translanguaging pedagogy to make cross-linguistic connections.

  - Children receive English instruction in one classroom and then switch to another classroom where they receive instruction in the parallel language. One lead teacher is present in each classroom and both utilize translanguaging pedagogy to make cross-linguistic connections.
  - The language of instruction varies by subject (e.g., math is taught in English, science in Spanish, literacy in both languages, etc.). Translanguaging pedagogy is used to make cross-linguistic connections.

- One bilingual teacher provides instruction in both languages in a structured way (e.g., 50/50 model), while embedding a translanguaging pedagogy to make cross-linguistic connections.
- Teachers and administrators have a process for tracking language allocation to ensure adequate high-quality exposure in each language.
- For preschoolers and students in the early grades, administrators have explicit guidance on how to embed a translanguaging pedagogy within the existing language allocation models.
- All newly onboarded educators are trained on the language allocation model they will be implementing, and teachers who have already received the onboarding training continue receiving coaching and training to implement the model as needed.
- Instructional coaches observe teachers' language use and provide feedback as necessary to ensure that instruction matches the language allocation plan with strategies for embedding translanguaging pedagogy and practices.
- All newly onboarded educators are trained on the language allocation model they will be implementing, and teachers who have already received the onboarding training continue receiving coaching and training to implement the model as needed.
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WHAT IS TRANSLANGUAGING?

Translanguaging is a theory, practice, and pedagogy of bilingualism. Translanguaging refers to the way in which individuals understand and are understood using their entire language repertoire — or all they know in each named language (e.g., Spanish, English) and non-spoken modalities (e.g., body language, gestures, writing, etc.). Translanguaging refers to how individuals communicate based on their context and communication partner. For example, sometimes a person might choose only to speak Spanish, other times they might speak in English, or they might choose to communicate using a mixture of both. Along with spoken language, they might also use gestures, expressions, drawings, and signs. Translanguaging is a recognition of the dynamic way that individuals communicate. Monolinguals translanguage as well; for example, an adult might type a text using written English and emojis. This use of written and visual modalities is an example of translanguaging, too. However, because the language practices of bilingual/multilingual and language-minoritized speakers are often stigmatized, translanguaging allows these individuals to transcend the rigid idea that a person has to communicate exclusively in one language.

Translanguaging also refers to a pedagogical approach that encourages teachers to validate and build upon children's diverse language practices to promote learning, language development, and metalinguistic awareness (the abilty to think about language). In educational settings, there are two types of translanguaging to consider: **spontaneous translanguaging** and **translanguaging pedagogy**. **Spontaneous translanguaging** refers to the way that bilinguals will choose the language(s) and modalities they will use to communicate based on the context they are in and who their communication partners are. **Translanguaging pedagogy** is the structured, planned strategies that teachers use to make cross-linguistic connections, support children's comprehension and learning of concepts, assess children's knowledge across all their languages, and encourage children's positive bilingual identities. In this brief, we are explicitly referring to translanguaging pedagogy (Howard & Simpson, 2023; Sánchez et al., 2018; Solorza et al., 2019).

Translanguaging Pedagogy is NOT:

CODE-SWITCHING

Code-switching refers to individuals' use of their two languages in the same sentence, or across conversational turns. Code-switching is not the same as translanguaging (García & Wei, 2014). Code-switching was derived from external observations of bilinguals' communication, and it still focuses on the monolingual use of each language. On the other hand, translanguaging refers to bilinguals' agentive use of their language resources based on who their communication partner is and the context they are in. It reinforces the use of dynamic and flexible communication, which extends beyond rigid monolingual uses of each named language (e.g., Spanish, English).

CONCURRENT TRANSLATIONS

Concurrent translations are when educators translate what they say in both languages at the same time. Translanguaging pedagogy is not the same as concurrent translations (Freeman & Freeman, 2021). Educators who implement a translanguaging pedagogy plan and coordinate their use of cross-linguistic strategies during specific times of instruction. These strategies are not about translating content in parallel ways, but about making concrete links between the two languages, even when instruction is primarily in one of the languages (e.g., cognate lesson during the English block).

MUTUALLY EXCLUSIVE FROM TRADITIONAL LANGUAGE ALLOCATION MODELS

Translanguaging pedagogy is complementary to traditional language allocation models (Howard & Simpson, 2023). In other words, it is possible to have specific moments for translanguaging pedagogy within instruction in each given language (see the Pedagogy, Instruction, and Curricula section for more details). It is also important to dedicate sufficient time to provide instruction in each respective language. Translanguaging pedagogy, however, allows educators to make explicit cross-linguistic connections so children can develop metalinguistic awareness and use their entire language repertoire to optimize their learning and maintain positive identities as bilingual speakers.

Integrating Translanguaging Pedagogy in Language Allocation Models

In traditional language allocation models of dual language programs, educators strictly separate the two languages of instruction. Teachers and children are discouraged from using both languages at the same time. Limitations of this language allocation approach are that children can only rely on a part of their language repertoire and have reduced opportunities to make cross-linguistic connections that help them develop metalinguistic awareness. Translanguaging can be intentionally promoted and facilitated within any language allocation model, including 50/50 allocation, while still providing dedicated instruction and opportunities to develop each language.

EXAMPLES OF HOW TO EMBED TRANSLANGUAGING INCLUDE:

- Providing instruction in English, but showing children a graphic organizer that shows the same vocabulary words in English and Spanish at the same time.

- Helping children process or comprehend the story they heard in English by encouraging them to talk about the story in English and Spanish (and in other languages the children speak), draw pictures, act out the story, before they are asked to retell the story in English.

- Highlighting multimodal communication by singing, dancing, drawing pictures, etc.

- Avoiding discouraging children from using Spanish and English at the same time when communicating socially with their peers.

- When a child speaks Spanish during the English instruction block, instead of saying, "Say it in English," say, "I noticed you said that in Spanish-you can also say it in English [model phrase. Then, after the child responds: "I love how you communicate bilingually!"

- Bi/multilingual labels and signs in the classroom to create a multilingual ecology, or an environment in which children's and families' languages are visible and palpable in every aspect of the program, including bulletin boards, libraries (if relevant) and written and verbal communication.

- Bilingual books (some in each target language, some that include both target languages on each page, and others that are primarily in one language with vocabulary in the other language embedded throughout).

- Inviting family and/or community members that are bilingual to use their bilingualism with the children.

- Making connections between languages (and pointing out differences [e.g., *embarazada* [pregnant] is not "embarrassed"]).

- Showing children information using different modalities and languages. For example, if the lesson is about sheep, model the words *sheep* in English and *oveja* in Spanish, invite children to share other ways they may refer to the animal in their other languages and in other varieties of Spanish/English, show a picture and video of the animal, and allow children to interact with a toy sheep.

Research

Determining the most effective language allocation models for infants/toddlers, preschoolers, and children in early elementary school is informed by current understanding of bilingual language development (e.g., National Academies of Sciences, Engineering, and Medicine [NASEM], 2017) and extant research on dual language allocation models (e.g., Acosta & Hunt, 2019; Lindholm-Leary & Genesee, 2014; Marian et al., 2013).

RESEARCH ON EFFECTIVE DUAL LANGUAGE ALLOCATION MODELS

Most research on language allocation models for dual language education is based on the K–12 system (e.g., Acosta & Hunt, 2019; Lindholm-Leary & Genesee, 2014; Marian et al., 2013; Slavin & Cheung, 2005). In early childhood, Head Start has its own Classroom Language Models (summarized in **Table 2**), where four instructional options are provided: English with home language support, home language as the foundation for English development, dual language, or English-only. In recent years, there has

INFANTS/TODDLERS

At Luna DLL Center, infants and toddlers are in a learning environment where educators speak to them in their home language. Once children enter preschool, they receive 50% of instruction in English and 50% in Spanish. Classrooms have co-teachers, and each takes turns leading instruction in their respective languages. Children also have the same teacher for their first three years they are enrolled in the program. This is done to ensure they can have a consistent language model, and maintain strong socioemotional connections with their teachers.

PRESCHOOLERS/EARLY GRADES

At Estrella Public Charter School, preschoolers and elementary-aged students in grades K–2 also receive 50% of instruction in English and 50% in Spanish. Half of their day is in each language. For some of the children, instruction happens in the same classroom with two co-teachers who take turns presenting instruction in each language. For other children, they switch between classrooms, and each classroom has a teacher that provides instruction in English or Spanish. Once children enter their elementary grades, instruction is delivered in English for some subjects, and Spanish in others. Across all grades, the language allocations allow for flexible language use by facilitating the use of cross-language connections to connect what children know across languages.

been a growing body of research on the effects of different types of language allocation models on the academic and social outcomes of preschoolers who are emergent bilinguals, with limited focus on infants and toddlers (e.g., Barnett et al., 2007; Durán et al., 2010; Holtzman et al., 2022; Oliva-Olson, 2019; Raikes et al., 2019). Very few studies have examined the longitudinal academic impact of attending bilingual education programs as preschoolers or kindergarteners (e.g., Serafini et al., 2022; Steele et al., 2017). The sum of these studies provide evidence that additive language bilingual allocation models, such as two-way immersion programs, result in higher bilingual academic

outcomes in reading and math (e.g., Marian et al., 2013; Steele et al., 2022), faster English acquisition for emergent bilinguals who speak a language other than English at home (e.g., Serafini et al., 2022; Steele et al., 2017), and advanced language development for young emergent bilinguals (e.g., Barnett et al., 2007; Oliva-Olson, 2019; Raikes et al., 2019).

Infants/toddlers. Research on the most effective language allocation models for infants and toddlers is very limited (e.g., Hsin et al., 2022). The results of one study of California's First Five program (Hsin et al., 2022) indicated that infants/toddlers between eight and 18 months with a Spanish background and immersed in a learning environment that was primarily in Spanish understood more words in Spanish than those in primarily English environments. Toddlers between 30 and 36 months in these primarily Spanish environments had higher productions of Spanish words and sentences than those in primarily English environments. Infants who were emergent bilinguals between eight and 18 months in primarily English environments had greater English communication skills, but lower Spanish communication skills. Regardless of the language of instruction, infants and toddlers enrolled in early childhood programs for a longer period had more positive communication and problem-solving skills than those enrolled for less time. Limitations of this study included that only one assessment was used to measure infants and toddlers' communication in each language and that the two languages were separated, which might provide an incomplete measure of children's complete language repertoire.

Most of what we currently know about bilingual infants and toddlers' language development comes from brain science research (NASEM, 2017). Research studies indicate that young children, starting from infancy, have the capacity to learn two or more languages at the same time (NASEM, 2017). Byers-Heinlein et al. (2009) found that infants exposed to English and Tagalog during pregnancy and since birth could discriminate between the two languages in their environment, paying equal attention to both languages. On the other hand, infants who were only exposed to English paid more attention to English than Tagalog. The results of another study indicated that seven-month-old infants exposed to two languages could identify differences in languages' word order, or the way that sentences are formed (Gervain & Werker, 2013). In most languages, the most typical word order is subject-verb-object (e.g., the dog chased the cat). But there are other languages in which other types of word order, such as subject-object-verb are most common (e.g., the cat the dog chased). Gervain and Werker (2013) found that infants exposed to two languages with very different word orders could identify noun phrases by recognizing differences in the rhythm, or intonation, of each language. Sundara and colleagues (2020) also found that by 12 months, infants alter

their babbling to match either a Spanish- or English-speaking communication partner. For example, when infants were engaged in communication with a Spanish-speaker, their babbling had longer syllable strings (e.g., batukaba versus baba because Spanish has longer words). Infants' capacity to flexibly change their babbling based on their communication partner was only evident when they were exposed to these two languages at least once before. The findings from this study highlight that even 12-month-old infants could benefit from exposure to two or more languages. This capacity to learn two languages concurrently is also evident in toddlers (e.g., Genesee et al., 2015). Research on toddlers learning two or more languages at the same time support that these children choose which language, or languages, to use based on the language(s) their communication partner speaks (Genesee et al., 2015), including when these communication partners are strangers (Genesee et al., 2016). Toddlers can also learn a language when they engage in adult-child interactions in which the language used is diverse in its use of vocabulary and sentence structure (NASEM, 2017). There is also research suggesting that peer social interactions also play a critical role in developing young children's bilingualism (e.g., Chesterfield et al., 1982; Stephens et al., 2023). More research is needed to understand the most effective language allocation model for infants and toddlers who are emergent bilinguals. However, brain science research supports that these young children have the capacity to learn two or more languages at the same time if they are exposed to high-quality language across each of the languages, within the context of warm, adult-child relationships.

Preschool and the early grades. Research conducted to date indicates that two-way dual language immersion programs are among the most effective language allocation models for emergent bilinguals in preschool and primary and secondary school (e.g., Durán et al., 2010; Serafini et al., 2022). There are two general types of two-way immersion programs: 90/10 and 50/50. In 90/10 immersion programs, 90% of the instruction is in the partner language, and 10% in English. As children progress through grades, the proportion of the partner language gradually decreases until a 50/50 allocation is reached. In 50/50 two-way immersion programs, the most popular of the two models, half of the instruction is in English and the other half is in the partner language (e.g., Spanish, Mandarin, French, etc.). These 90/10 and 50/50 two-way immersion programs usually have two teachers per classroom, and each teacher serves as a language model in their respective language. Findings from a preliminary study found that the language allocation varied by children's ages (Soto-Boykin et al., 2024). Infants and toddlers received instruction primarily in their home language, whereas preschoolers and young elementary-aged students received 50% of instruction in English and 50% in the partner language. These findings were consistent with those reported by Martin and colleagues (2022), who found that in California, infants and toddlers who received more Spanish exposure had greater Spanish language skills than those in classrooms with primarily English exposure. Preschoolers and students in grades K–2 received 50% of instruction in English and 50% in Spanish on the same day or alternating each language weekly. Older elementary-aged students' language allocation varied by subject.

In a seminal study by Barnett and colleagues (2007), researchers compared the impact of attending two-way immersion versus English-only programs on preschoolers' Spanish and English early literacy, language, and math skills. These researchers found that while all children made gains in their English outcomes, children in the two-way immersion program also made higher gains in their Spanish language and academic skills without sacrificing their English acquisition. These findings align with Oliva-Olson's (2019), who compared the effects of attending Head Start programs using a two-way dual immersion versus a primarily English-with home language supports model on emergent bilingual preschoolers' Spanish and English fluency skills. The results of this study indicated that children in two-way immersion programs had higher Spanish and English language skills, and that this was moderated by high-quality teacher-child language interactions. Holtzman and colleagues (2022) found that in California, preschoolers who received Spanish-English dual language instruction performed significantly better on measures of Spanish and English oral comprehension, Spanish vocabulary and math, socio-emotional development, than those who only received instruction in English. The results of these studies underscore the importance of not only providing emergent bilinguals in preschool with additive dual language instruction, but also to support educators so they engage children in interactions that are rich in language and most likely to yield the most positive outcomes.

Few studies have presently evaluated the longitudinal effects of preschoolers attending two-way dual language immersion programs (Padilla et al., 2022; Serafini et al., 2022; Steele et al., 2017). Current research indicates that emergent bilinguals who receive two-way immersion instruction in their early years see benefits later on in their academic careers (e.g., Padilla, 2022). Padilla and colleagues (2022) conducted a study following children who had completed a K–5 two-way Spanish-English immersion program until middle and high school. The results of this study indicated that most of the children who attended the dual language program in primary school continued taking advanced Spanish classes in high

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school, and nearly half earned the Seal of Biliteracy. They also performed similarly or higher on standardized measures of English Language Arts and math than peers in the same school who did not receive dual language instruction at an early age. In line with these results, Serafini and colleagues (2022) found that Spanish-speaking Latine preschoolers from low-income communities who attended two-way immersion programs had higher GPAs and were considered "fully fluent in English" by fifth grade. These findings support not only the long-term benefits of two-way dual language instruction, but also the value of giving programs three to five years to show positive gains, as gains in English-only programs are usually observed faster but are not always sustained (Serafini et al., 2022).

EMBEDDING A TRANSLANGUAGING PEDAGOGY IN TRADITIONAL LANGUAGE ALLOCATION MODELS

Research supports that bilinguals translanguage, or use their entire language repertoire, to communicate with others and make sense of information (García, 2009; Otheguy et al., 2018). In educational contexts, translanguaging can be categorized as: (a) spontaneous translanguaging and (b) translanguaging pedagogy (Howard & Simpson, 2023; Sánchez et al., 2018; Solorza et al., 2019). Spontaneous translanguaging is the dynamic way in which individuals use their entire linguistic repertoire to communicate depending on who their communication partners are and the context they are in. Although this section will focus on translanguaging pedagogy, we will briefly discuss spontaneous translanguaging first, as this research informs how to use translanguaging within traditional language allocation models.

Spontaneous translanguaging. Research shows that children engage in translanguaging beginning at a young age (Axelrod, 2017; Garrity et al., 2015; Morales & Rumenapp, 2017; Morell & López, 2021; Seltzer et al., 2020). For example, Garrity and colleagues (2015) found that older infants around 11 months old with advanced verbal expression skills (i.e, those communicating using single words) who attended a Spanish/English dual language program located near the U.S./Mexico border responded to caregivers in a combination of English, Spanish, and baby sign language (BSL). For example, when a caregiver said "*burbuja*" in Spanish, the infant responded by saying, "bubble" in English. In another instance, when the caregiver said, *"es hora de comer"* ("it's time to eat"), the infant responded by signing the word *eat*. This study demonstrates that multilinguals use translanguaging from a very young age.Similarly, translanguaging practices have been documented amongst preschoolers. For example, Morales and Rumenapp (2017) evaluated the extent to which Spanish-English bilingual preschoolers were aware of their translanguaging. They

In California, preschoolers who received Spanish-English dual language instruction performed significantly better on measures of Spanish and English oral comprehension, Spanish vocabulary, math, and socio-emotional development than those who only received instruction in English.

first conducted video recordings of the children engaging in communication, and then showed the videos to the preschoolers to ask them about how they used language. The results of the study revealed that these preschoolers had sophisticated metalinguistic awareness as they articulated their decisions to use English, Spanish, and semiotic resources — such as using movements like pointing and moving objects — to express their ideas and collaborate with others. This study demonstrates that from this very young age, children are aware of their bilingual language practices and consider their audience when choosing the language(s) of interaction.

Translanguaging pedagogy. Translanguaging pedagogy refers to teachers' structured, planned, and systematic ways of supporting children's use of their entire language repertoires by implementing cross-linguistic strategies to build children's multilingual and metalinguistic awareness (see the Pedagogy, Instruction, and Curricula section for more information); assessing children's knowledge across all their languages instead of only assessing one language at a time (Ascenzi-Moreno, 2018; Mahoney, 2017); and encouraging children's development of positive identities as bilingual speakers (Aponte et al., 2021; García-Mateus & Palmer, 2017). It is important to note that translanguaging pedagogy is not the same as code-switching, it is not concurrent translations, and it is not mutually exclusive from traditional language allocation models (see pages 29–30 for more details). Teachers can implement cross-linguistic strategies while instruction is happening in a particular language, without sacrificing the dedicated time to a particular language of instruction. For example, if instruction is happening in English and children are asked to retell a story in English, the teacher may first encourage children to talk about the story in Spanish and English and draw pictures of what happened in the story, to process the information before they retell it in English. Teachers

> **These findings support not only the long-term benefits of two-way dual language instruction, but also the value of giving programs three to five years to show positive gains, as gains in English-only programs are usually observed faster but are not always sustained.**

could also provide instruction on cognates or talk about words and sounds that are similar across languages, while most of the instruction is happening in one language.

Figure 7 highlights a continuum of instructional language use (Howard & Simpson, 2023). On the x-axis are the language or languages of instruction, ranging from monolingual English on the left (shown in blue), bilingual concurrent language use in the middle (e.g., translanguaging pedagogical approach) (shown in purple), and the partner language of instruction on the right (shown in red). On the y-axis there is an indication of the time spent on each language, or languages. More time is dedicated to the monolingual instruction of English and the partner language, and less time is dedicated to providing explicit connections or using the two languages concurrently. Researchers advice that because the partner language is usually minoritized and children are at risk of losing this language and favoring English, it is best to implement less translanguaging strategies when the language of instruction is the partner language (e.g., Spanish) than when instruction is in English (Howard & Simpson, 2023).

Figure 8 shows another example of how translanguaging pedagogy can be embedded within a traditional 50/50 language allocation model. In this example, the language of instruction alternates on a daily basis, with red representing Spanish and blue representing English. Teachers ensure that instruction is delivered in the target language of instruction and purposefully implement translanguaging instruction (in yellow) throughout the week. Translanguaging spaces may range from small moments of cross-language connections (depicted as smaller yellow rectangles), to longer lessons and activities (shown as longer yellow rectangles), such as an analysis of letter sounds across languages.

To embed a translanguaging pedagogy in traditional language allocation models, Howard & Simpson (2023) recommend ensuring that the leaders and educators work together to have a written and explicit language of instruction

Providing Nurturing Responses to Children's Spontaneous Translanguaging

Translanguaging is a typical part of emergent bilinguals' dynamic language use. Therefore, children should not be reprimanded or shamed when they engage in spontaneous translanguaging. For example, if a child answers "apple" when the teacher asks to name the fruit in Spanish, the teacher should not say, *"No te voy a contestar hasta que hables en español"* ["I won't respond until you answer in Spanish"]. Instead, they can say, *"Me encanta que sabes la palabra en inglés"* ["I love that you know the word in English"], *"vamos a expandir nuestra burbuja de lenguaje y decirlo en español también-apple es manzana. Dilo conmigo: manzana."* ["Let's expand our language bubble and say it in Spanish too-apple is *manzana*. Say it with me: *manzana*]."

Figure 7

CONTINUUM OF INSTRUCTIONAL LANGUAGE USE IN DUAL LANGUAGE PROGRAMS
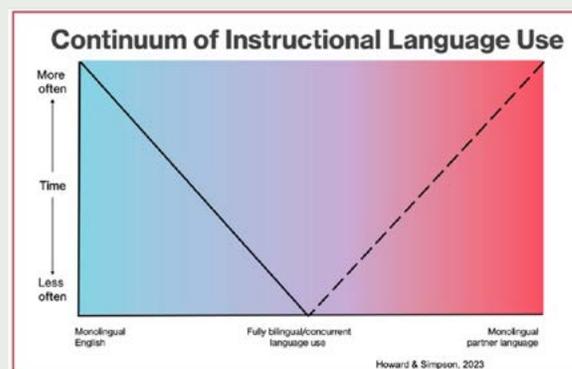
Original source: Howard, E. R., & Simpson, S. (2023). Navigating Tensions Between Translanguaging and Separation of Languages in Dual Language Programs. *Dual Language Education of New Mexico Monograph Series*, Volume 7. Reprinted with permission from Howard, E.R., & Simpson, S., (2024). *Dual language tandem teaching: Coordinating instruction across languages through cross-linguistic pedagogies*. Velázquez Press.

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plan with alignment between the language allocation approach, how and when translanguaging pedagogy will be implemented, and how teachers will co-plan and coordinate instruction to provide children opportunities to make cross-linguistic connections. In classrooms where there is only a bilingual teacher that provides instruction in both languages, the language of instruction plan should explicitly note when the teacher will embed a translanguaging pedagogy ahead of time.

Research on translanguaging pedagogy has focused on how students and teachers translanguage to leverage emergent bilingual children's linguistic strengths in the teaching and learning process (e.g., Creese & Blackledge, 2010; Gort & Pontier, 2013; Kim, 2016; Poza, 2016) and play (e.g., Espinet et al., 2021). The findings of these studies reveal translanguaging yields academic, social, and cognitive advantages for emergent bilinguals (García et al., 2021). In particular, translanguaging pedagogy has been directly linked to positive identity formation, successful completion of academic tasks and higher classroom participation, enhanced reading skills, increased metalinguistic awareness, more complex discussions about books (e.g., Kim, 2016) and expanded creativity (Canagarajah, 2011; García et al., 2021; García & Kleyn, 2016; García-Mateus & Palmer, 2017; Gort & Sembiante, 2015; Makalela, 2015; Velasco & Fialais, 2016). In a study of a bilingual Head Start classroom in a Texas border town, Arreguín-Anderson and colleagues (2018) found that when translanguaging was encouraged during playtime, children regulated their own learning as well as the behaviors and actions of their classmates during play. The teacher in this study used whole-class discussions to model authentic translanguaging and gauge children's interests and cultural experiences. She then embedded their interests into dramatic play centers. The preschoolers invented characters, scenarios, and bilingual dialogues at their local bakery and

Translanguaging pedagogy is not the same as code-switching, it is not concurrent translations, and it is not mutually exclusive from traditional language allocation models. Teachers can implement cross-linguistic strategies while instruction is happening in a particular language without sacrificing the dedicated time to a particular language of instruction.

paletería [ice cream stand]. The teacher's intentional planning for translanguaging during play encouraged and motivated children to creatively use language to regulate their own learning as the behaviors and actions of other children.

Similarly, Espinet and colleagues (2021) found that translanguaging supported first graders' understanding of academic concepts and creativity during imaginative play. During the unit on community, the children analyzed the language practices of their community (e.g., "What languages are spoken at the bodega? What about the hair salon?"). Teachers reorganized the classroom's play centers by adding bilingual signs and props to reflect places the class had visited during their walk around the community. Students were encouraged to use their languages in flexible and dynamic ways that reflected the bilingual neighborhood.

Figure 8	ILLUSTRATION OF TRANSLANGUAGING PEDAGOGY EMBEDDED WITHIN A 50/50 LANGUAGE ALLOCATION MODEL

	Monday	Tuesday	Wednesday	Thursday	Friday
Week 1	English	Spanish	English	Spanish	English
Week 2	Spanish	English	Spanish	English	Spanish
Week 3	English	Spanish	English	Spanish	English

The yellow rectangles indicate pedagogical translanguaging spaces within each respective language of instruction. The sizes of the yellow rectangles showcase that the length of time spent on translanguaging might vary.

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They used play to process what they had learned, reenacting (and extending) bilingual scenarios at the pastelitos shop, the medical clinic, and the hair salon. This intentional translanguaging space embedded in guided play allowed children's multilingual imaginations to flourish as they drew on cultural schemas as resources for learning through play. The teacher developed a lesson for the children to share their observations with their parents and their peers in multimodal ways. The first graders analyzed photos that were taken during their community walk and they added dialogue to the images to re-create what they had observed. During this sophisticated metalinguistic analysis, students created bilingual dialogues on speech bubbles that reflected the ways in which people in their multilingual community use language in different ways depending on who their audience is.

Other studies have also shown that encouraging young children to use their full language repertoire during play fosters their bilingual imaginations and supports their learning processes (Axelrod, 2017; López, 2019; Seltzer et al., 2020). Translanguaging pedagogy is particularly transformative for children from racially and linguistically minoritized backgrounds, because it transcends mainstream monolingual norms and validates marginalized languages and language varieties (Celic & Seltzer, 2012; Cenoz & Gorter, 2020; Flores, 2014; Palmer et al., 2014; Sánchez et al., 2018; Solorza et al., 2019). Moreover, schools that embrace translanguaging have been shown to foster strong home-school connections for families traditionally marginalized in schools (Alvarez, 2014; Kim & Song, 2019). Embedding translanguaging pedagogy is a promising approach that mirrors the dynamic way that emergent bilinguals communicate, and it has the potential of authentically leveraging children's linguistic strengths (Martin et al., 2019). Further research is needed to empirically examine the effects of embedding translanguaging in dual language immersion programs.

Using Translanguaging Pedagogies to Support Indigenous Languages in Spanish-English Dual Language Immersion Programs

It is important to recognize the linguistic diversity that exists amongst Indigenous communities from Latin American countries. Upon enrolling in US schools, Indigenous children and families from Latin American backgrounds are often labeled as Latine Spanish-speakers, even if that is not their primary home language (Baquedano-López, 2019; Campbell-Montalvo, 2021; Perez, Vasquez & Buriel, 2016). There are numerous other languages spoken throughout Latin America (e.g., Mixteco, Náhuatl, Pipil, Quechua, and Zapotec). In fact, many Indigenous families from Latin American countries often speak Spanish as a second language. Some families do not speak Spanish at all, and others speak both Spanish and an Indigenous language. For example, one child from Guatemala might speak Quiché (a Mayan language), while another child from Guatemala might speak Garífuna (an Afro-Indigenous language) and Spanish, and a third Guatemalan student might only speak Spanish.

High-quality dual language programs recognize that there is linguistic diversity in Latin American countries, and they ensure that they identify whether children or families speak an Indigenous language. Research shows that sometimes families may not disclose that they speak an Indigenous language for fear of facing discrimination or stigmatization (Machado-Casas, 2012). Therefore, it is important for dual language immersion programs to create an environment in which families and children's Indigenous languages are not erased, but rather uplifted as an important aspect of their identities and as part of children's linguistic repertoires (Baquedano-López, 2019).

These Indigenous languages can be uplifted in dual language immersion programs where there is a 50/50 language allocation model, such as Spanish-English. **Translanguaging pedagogies** can be used to validate and sustain children's Indigenous home languages. This can be done by embedding children's Indigenous languages in daily classroom routines, such as greetings, mealtime, singing, storytelling, etc. Children's Indigenous languages should also be incorporated in the instruction. For example, while introducing the concept of growing during English instruction, a teacher might introduce the words *crecer* [in Spanish], grow [in English], *ruruy* [in Quechua], and invite children to share ways to say grow in other languages. It is important to celebrate multilingualism and linguistic diversity beyond the two languages of instruction in dual language programs.

> To date, no study has examined the impact of including children with disabilities who are also emergent bilinguals in two-way immersion programs, and there has been limited research focusing on infants and toddlers and the optimal language allocation approaches for them.

Research Gaps and Future Directions

The research to date indicates that preschoolers and children in elementary school and beyond who attend dual language immersion programs outperform those who attend English-only programs, with long-term benefits seen later in children's academic careers. Despite this body of research, gaps remain. To date, no study has examined the impact of including children with disabilities who are also emergent bilinguals in two-way immersion programs, and there has been limited research focusing on infants and toddlers and the optimal language allocation approaches for them. However, current research on brain science and bilingual acquisition in infants provides a foundation for recommending that young children, starting from infancy, can benefit from bilingual language interactions and instruction, and that a strong home language foundation can support children's bilingual acquisition. Research on preschoolers and students in the early grades indicate that these children benefit from 50/50 instruction that is adapted by age-level. More research is needed in understanding the differences between various types of 50/50 language allocation models, such as by day or week or by subject area and whether a dedicated co-teacher in each language or bilingual educators are optimal. There is a need to increase the number of studies that examine the effectiveness of dual language immersion programs for preschoolers on not only their academic performance, but also their positive raciolinguistic identities. There is a need to conduct more large-scale longitudinal studies examining the long-term impact of attending dual language immersion programs in early childhood, followed by dual language elementary school settings. Last but not least, there is a pressing need to investigate the academic and socioemotional effects as well as implementation supports — for translanguaging as a pedagogy within dual language immersion programs.

Table 1   TYPES OF ADDITIVE BILINGUAL EDUCATION MODELS IN THE U.S.

Type of program	Target children	Langauge used for introduction	Primary language outcome	Result(s)	Has research been done on the effectiveness of this model?
One-way dual language immersion	Emergent bilingual who speak the same minoritized home language at home (e.g., Spanish, Vietnamese) Emergent bilinguals who come from monolingual, English speaking homes	**50/50 model:** 50% in English and 50% in a language other than English (e.g., Spanish, Mandarin) **90/10 model:** In Kindergarten, 90% of instruction is in language other than English, and 10% in English. Proportion changes across each grade level until the 50/50 model is reached.	Emergent bilinguals who speak the same minoritized language: Maintenance of home language; bilingualism Emergent bilinguals who come from monolingual English-speaking home: Enrichment; bilingualism	Bilingualism and biliteracy	Yes (although limited) **Example studies:** Lindholm-Leary & Genesee, 2014 Segerra, 2006
Two-way dual language immersion	50% of children are emergent bilinguals who speak a language other than English at home, and 50% speak English at home and are learning another language	**50/50 model:** 50% in English and 50% in language other than English (e.g., Spanish, Mandarin) **90/10 model:** In Kindergarten, 90% of instruction is in language other than English, and 10% in English. Proportion changes across each grade level until the 50/50 model is reached.	Maintenance of home language; bilingualism	Bilingualism, biliteracy, biculturalism	Yes (most researched model) **Example studies:** Block, 2001 Lara-Alecio et al., 2004 Marian et al., 2013 Padilla et al., 2013 Steele et al., 2017 Valentino & Reardon, 2015
Heritage Language programs	Emergent bilinguals who speak a language other than English at home and are at-risk of losing their home language (e.g., Indigenous children)	Home language other than English as a pull-out class separate from the rest of English instruction	Maintenance of home language; bilingualism	Bilingualism, biliteracy	Yes (although limited) **Example studies:** Bylund & Diaz, 2012

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Table 2   HEAD START'S **CLASSROOM LANGUAGE MODELS** (CLMS)

Model	Goals	Languages children speak	Composition of children with different language backgrounds	Teachers' languages
English with home language support	Children who are emergent bilinguals develop academic skills in English and continue developing their home language	Some children speak English and others speak a different language.	Not specified	Both teachers are fluent in English and home language, OR one teacher is fluent in English and the other in the home language most children speak
Dual language	All children will become bilingual	Many children speak a home language other than English (e.g., Spanish), others speak English, and some may speak a third language	Even number of children of each language background placed together in the same classroom	Both teachers are fluent in English and home language, OR one teacher is fluent in English and the other in another language of instruction
Home language as the foundation for English development	All children who are emergent bilinguals learn in the same home language, with English gradually introduced	All children speak one home language	Not specified	Teachers are fluent in English and home language
English	Children develop English language and academic skills	All children in a classroom speak English	Not specified	Teachers speak English

CURRICULA, INSTRUCTION, AND PEDAGOGY

Overview

High-quality curricula, instruction, and pedagogy in dual language early care and education programs have alignment of curriculum and instruction with early learning standards, use of research-supported curricula that address the whole child, developmentally appropriate practices, rich and engaging teacher-child interactions, child-centered and child-driven learning opportunities, and individualized supports. They also have components unique to bilingual learning environments, including research-supported strategies for promoting bilingual learning that are meaningfully and strategically central to each aspect of the pedagogy, curriculum and instruction, including the use of a translanguaging pedagogy, to build children's cross-linguistic connections. The goal is supporting children's bilingual academic socio-emotional development, as well as to promote pride in their cultural and linguistic identities.

Examples: Creating a Learning Environment that Reflects Children's Languages, Cultures, and Identities

Infants/toddlers: Teachers take pictures of the families and place them in the learning environment, and the dolls represent the racial and ethnic background of children, including those with disabilities. Teachers ask families which songs and rhymes they sing at home, and they repeat them in the learning environment. Teachers ask parents to share items from the home (e.g., food containers, hair products, etc.) that can be incorporated into the play areas or various hands-on activities. For instance, educators can invite caregivers to share kitchen and cooking-related items from home so they could be embedded in the play area (e.g., aprons, empty food containers, bowls, etc.).

Preschoolers: When preschoolers are learning about community, the teacher creates a lesson about the local market where children and families visit. They ask families to take pictures and/or videos of themselves shopping at the market with their children so everyone can share their experiences with the class. Then, the teacher and children recreate the local market in the classroom, creating different food stands (e.g., vegetables, fruits, etc.), signs in Spanish and English, setting prices, etc. They also compare and contrast grocery stores with the local market. Children engage in dramatic play with the market, and the teacher invites the owner of the market to visit the classroom so the children can ask them questions about their experiences.

Students in the early grades: Teachers place anchor charts in the classroom that make explicit connections between the two languages of instruction. When children are learning about water as a natural resource, they learn about their communities' and ancestors' relationship with water. For example, in a classroom composed of children of Caribbean heritage, they talk about how water surrounds islands, how Taínos (the Indigenous people in the Caribbean) used to make canoes out of trees and fish in the water to create thriving communities, and how many Taínos continue to respect and revere water. The teacher extends this lesson by discussing how climate change impacts the water supply in the Caribbean, and then children conduct a hands-on project about things they can do to take good care of our water supplies.

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Promising Instructional Practices for Young Emergent Bilinguals

(Escamilla et al., 2022; NASEM, 2017; Yu & Reyes, 2023)

- Make cross-linguistic connections to help develop children's metalinguistic awareness, or the capacity to think about how their two languages are similar and different.

- Read books to children in English and their home language, and make explicit connections between similar vocabulary and themes in the book.

- Make direct links between the concepts that children know in one language to their other language. For example, if a child understands the concepts of "shapes" in Spanish, help them make connections that shapes also exist in English. Start by teaching the shapes that sound similar across languages first (e.g., *triángulo* in Spanish is *triangle* in English), and then introduce shapes that sound different (e.g., *cuadrado* in Spanish is s*quare* in English).

- Explicitly embed language learning in all academic domains, including math, science, and social studies. For example, when doing a math lesson for preschoolers about adding, help children learn that in English, we can add the plural -s or -es when we have more than one of something (e.g., *dog* versus *dogs*).

- Use visuals and objects to represent vocabulary, concepts, and directions in the learning environment.

- Provide children who are emergent bilinguals with literacy instruction that is comprehensive-meaning that it focuses on learning new concepts, language learning (e.g., vocabulary, sentence formation, etc., and decoding (phonics, phonological awareness, fluency).

- Engage children in opportunities to practice speaking in both languages (e.g., presentations, interpersonal communication, writing).

- Engage children in rich teacher-child language interactions, and for preschoolers and students in the early grades, ensure children have opportunities to engage in conversation and social interactions with peers.

- For children in preschool and the early grades, integrate writing in the literacy-focused lessons (e.g., have children retell the story in writing).

- Create lessons and a learning environment that is linguistically and culturally affirming by explicitly discussing the benefits of bilingualism and their identities as bilinguals, showing the same value of English and the partner language of instruction.

- Incorporate drawing into children's daily experiences as part of another component of their language repertoire and self-expression.

- Incorporate families' expertise, or "funds of knowledge," into the lessons.

Quality Indicators

- The curriculum used in the program is research-based for emergent bilinguals enrolled in dual language programs (see **Table 3**).

  - If such a curriculum is not commercially available, inaccessible, or inappropriate for the children served (e.g., age, language), the curriculum and instructional materials are translated to the partner language in partnership and consultation with model developers or local researchers and educators knowledgeable about the learning and development of emergent bilingual children. The curriculum and instructional materials are not direct translations from English to the partner language, but rather adapted to authentically reflect the linguistic characteristics of the partner language and cultures of the children served.

- The program is aligned with the **Principles of Ideal Learning**, using pedagogy that is child-focused and developmentally appropriate, and that promotes children's critical thinking, problem-solving, and higher-order thinking skills (e.g., the environment as a third teacher, project-based learning, outdoor play, etc.).

- Learning through intentional play is a core foundation of the program's approach, and various types of play are promoted across activities, in line with the program's pedagogy (e.g., dramatic play, structured and unstructured play, constructive play, etc.). This play-based

approach encourages children to explore and develop their identities, which also is a core component of bilingual education.

- For children in early childhood and the early grades, the learning environment and instruction represent their languages, cultures, and identities in authentic ways that are not based on racial or ethnic stereotypes and go beyond monthly heritage celebrations (e.g., Hispanic Heritage Month), or one-dimensional representation (e.g., all Latines have white or brown skin).

- For children in early childhood and the early grades, instruction addresses children's positive raciolinguistic identities by explicitly talking about the value and strength of being bilingual and about children's racial and ethnic backgrounds, cultures, and other social identities. This instruction is developmentally appropriate and uses books, songs, dramatic play, and/or conversations — depending on children's ages.

- Instructional models, strategies, and programmatic supports specifically designed to support the language learning and academic development of emergent bilinguals are integrated intentionally with child-focused pedagogies and curriculum, as appropriate by the age of children served. Examples by age group include:
  - **Infants/toddlers, preschoolers:** Language Learning Project
  - **Preschoolers-early grades:** Sobrato Early Academic Language [SEAL]'s P-3 Framework
  - **Preschoolers-12th grade:** Project Guided Language Acquisition Design (GLAD)

- For early childhood and the early grades, instruction embeds language learning strategies and opportunities for children to make cross-linguistic connections.
  - **Infants/toddlers and preschoolers:** Instruction across all developmental domains embeds language learning strategies and opportunities to make cross-language connections.
  - **Early grades:** Cross-linguistic (e.g., cognates for vocabulary instruction, contrastive analyses between languages, etc.) and language learning strategies (e.g., visuals and gestures, previewing key concepts, opportunities to engage in conversation, etc.) are embedded across all content areas.

Effective Early Literacy Instruction for Young Children who are Emergent Bilinguals

(Herrera et al., 2022)

Language and print-rich learning environment
- Classroom libraries in all the languages of instruction
- Label environment in both languages and use visuals to supplement text

Active engagement with texts in both English and the other partner language of instruction
- Introduce children to engaging books that are culturally relevant and in children's home languages and English
- Build a positive environment that encourages children to love reading
- Engage children in rich storybook reading that is interactive, back-and-forth, filled with open-ended questions and explicit vocabulary instruction
- Apply project-based learning related to the books that are read in the classroom (e.g., making a pretend cake after reading about a baker)

Rich oral language and vocabulary in both languages
- Make explicit vocabulary connections across languages
- Help children practice speaking in both languages
- Provide children with books that expose them to different types of sentences and vocabulary

Phonological awareness in both languages
- Expose children to rhymes and songs in each language
- Create activities where children can practice listening to the syllables and sounds in each language, highlighting similarities and differences (e.g., helping children notice that one can segment two-syllable words in English and Spanish like baby and *bebé.*)

Build cross-linguistic connections and metalinguistic awareness
- Talk about children's bilingual identities
- Discuss similarities and differences across sentence structures, sounds, vocabulary, alphabet, etc. of each language
- For example, when teaching children alphabet knowledge, start with the letters that are the same in Spanish and English (e.g., *s, m, p, t*) and then teach the ones that are different across languages (e.g., *ch, ñ, ll,* etc.).

Spotlight: Curriculum, Instruction, and Pedagogy

INFANTS/TODDLERS

At Esperanza Center, instruction happens in dyads between caregivers and infants and toddlers. This instruction happens during half days, in which instructors are linguistically and culturally matched to the children and their caregivers. Reggio-inspired principles and schematic learning are used to help children learn by exploring natural materials, and by scaffolding their skills during adult-child interactions.

PRESCHOOLERS

Preschoolers at Esperanza receive 50% of their instruction in Spanish and 50% in English. The pedagogical philosophy used in the program is Reggio Emilia–inspired, which involves project-based learning and curating the environment to encourage children to follow their interests and be curious. Project Zero, an approach in which teachers model how to engage in critical thinking throughout the daily routine, is also implemented. The administrators and educators also developed an outdoor learning curriculum in Spanish and English, where children learn about things like composting and recycling. These pedagogical approaches and supplemental curricula are anchored in the thematic-based learning that happens through the commercially available Creative Curriculum. At Esperanza Center, this curriculum was adapted to fit within a dual language program by translating materials into Spanish and developing lesson plans that explicitly made connections between the two languages. Furthermore, a Multi-tiered Systems of Support (MTSS) model is used to tailor instruction to meet children's individual needs.

STUDENTS IN THE EARLY GRADES

At Estrella, instruction for children in grades K–2 is aligned with Common Core Standards. For example, they use Number Data and Space as their K–5 mathematics curriculum, and they use Next Generation Standards for science instruction. District standards are used to teach social sciences. Students also have opportunities to participate in outdoor learning. Each year, students have a Science Fair where they present information in Spanish and peers serve as judges. Educators also implement the Guided Language Acquisition Design (GLAD) program, which targets strategies to support children's biliteracy development. The students enrolled at Estrella Public Charter since preschool consistently outperform their peers in other charter schools and the general school district in math and English Language Arts (ELA) by 3rd and 5th grade on state-level measures. For example, in 2022–2023, 54% of students at Estrella met or exceeded ELA benchmarks compared to 32% of other public and charter schools in the state. In Math, 46% of Estrella students met or exceeded benchmarks compared to 29% of students in public and charter schools in the state.

Research

Research indicates that all children, including young emergent bilinguals attending dual language programs, benefit from high-quality instruction that incorporates research-supported curricula that addresses each developmental domain, child-centered approaches including inquiry and project-based learning, the use of play and embedded instruction, rich language learning environments characterized by back-and-forth teacher-child interactions, opportunities for peer interaction, and individualized supports based on children's specific needs (Lopez & Paez, 2020). In addition, children who are emergent bilinguals benefit from unique strategies designed to foster their linguistic development across languages and opportunities to make explicit cross-language connections (Castro et al., 2011).

LEARNING ENVIRONMENT

Although more research is needed to better understand optimal learning environments, scholars have offered recommendations based on what is currently known about child development and bilingual language learning. For example, Lopez and Paez (2020) recommend offering young emergent bilinguals a learning environment that facilitates

their hands-on experiences and peer interactions. They also recommend allowing for predictable routines, using visuals, objects, and gestures to help convey information concretely, and selecting environmental and instructional materials that represent children's languages, cultures, and identities. Research on the impacts of having learning materials that represent children's identities and languages, such as culturally relevant books, has generally focused on children in elementary school and older (e.g., Rodriguez, 2014). Rodriguez (2014) found that when early elementary-aged children of Mexican-descent were exposed to books in Spanish and English that represented their lived experiences, they responded to the books positively, making connections between themselves and the characters in the book, and engaging in conversations about their bilingual identities. They also requested that the teachers read more culturally relevant books to them. These findings were similar to those by Kim and colleagues (2019), who found that Korean-English bilingual Kindergarten students engaged in imaginative conversations with peers and applied translanguaging when reading culturally relevant bilingual books. These findings highlight the need to further examine how to best create learning environments in dual language programs that are culturally relevant, and reflective of children's linguistic, racial, ethnic, and cultural identities. Further research is needed to identify how to create learning environments that are not only culturally relevant and conducive to language learning, but also accessible for emergent bilingual children with suspected or identified disabilities.

CURRICULA

To date, research on the most effective curricula for young emergent bilinguals in dual language programs has been very limited. Applying their expertise in overall child development, bilingual scholars recommend selecting curricula for young emergent bilinguals that addresses the whole child and offers large and small group instruction (Lopez & Paez, 2020). However, specific research on effective curricula for infants/toddlers and preschoolers enrolled in Spanish-English dual language programs are scant. Presently, most commonly used early childhood curricula are Creative Curriculum and High Scope, which are not specifically designed for emergent bilinguals in dual language programs. Although Creative Curriculum has instructional materials available in Spanish, and High Scope has supplemental guidance on how to support emergent bilinguals, these curricula lack explicit examples of how to implement the curricula in dual language settings, and there is no guidance on how to make connections between what children know across their languages (Michael Luna & Heimer, 2012). Whereas there are some curricula for preschoolers who speak Spanish

(**Table 3**), such as Cultivating Oral Language and Literacy Talents in Students (COLLTS) and Benchmark Ready to Achieve/Listos y Adelantes, there is very limited empirical research evaluating the effects of implementing these curricula in early childhood dual language programs.

Research on effective curricula for elementary-aged emergent bilinguals in Spanish-English dual language programs is more developed, though continues to have gaps. In early elementary, commonly used curricula in grades K–2 Spanish-English dual language programs include Estrellita, Descubre, Maravillas/Wonders, and Benchmark Workshop/Benchmark Taller. These curricula target language arts and reading, but none are domain-general. They also separate instruction in Spanish and English and do not have explicit guidance on how to create bilingual connections across languages. Additional research is needed to better understand how to integrate these Spanish curricula with English curricula to help children make explicit bilingual connections across languages. There is currently limited research on the effectiveness of these curricula on children's outcomes; however, Gomez Ramat (2018) found that Kindergartners enrolled in a two-way dual immersion program who received phonics instruction through Estrellita improved their Spanish letter sound recognition skills and emerging reading skills by the end of the school year. More studies are needed to evaluate the effects of existing curricula on the academic outcomes of early-elementary emergent bilinguals enrolled in dual language immersion programs.

INSTRUCTION

Although instruction is widely operationalized, core components of instruction for emergent bilinguals typically include teacher-child interactions, general instructional strategies, language-learning strategies, and domain-specific instruction. A summary of the research on each of these areas of instruction specific to young emergent bilinguals who are infants/toddlers, preschoolers, and early elementary-aged students in early care and education is presented below:

Teacher-child and facilitation of peer interactions. Research supports that for children to develop bilingually, they need to be engaged in back-and-forth interactions with adults, educators, and peers (e.g., Ramirez-Esparza et al., 2014). Whereas there is limited research on teacher-child interactions in dual language classrooms serving infants/toddlers, preschoolers, and early-elementary-aged students specifically, there is strong empirical evidence showing the value of positive teacher-child interactions in young children's language learning (e.g., Yang et al., 2021), and positive socio-emotional development and attachment (e.g., Limlingan et al., 2021, Mortensen & Barnett, 2015). Researchers define

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Table 3 EXAMPLES OF SPANISH-ENGLISH CURRICULA FOR EMERGENT BILINGUALS IN PK-5TH GRADE

Curriculum	Ages	Scope	Language(s)	Research on curriculum available?
Cultivating Oral Language and Literacy Talents in Students (COLTS)	PK	Interactive book readings are used to address children's foundational and early literacy, oral language, and background or conceptual knowledge	Spanish and English	Yes **Example studies:** Bergey et al., 2022
Beautiful Mundo	0 to 12 years old	Oral language and phonics taught through storybooks, poetry, and music	Spanish	No
Estrellita	PK–1	Phonics	Spanish	Yes **Example studies:** Ramat, 2018
Esperanza	PK–2	Reading Writing Spelling	Spanish	Yes **Example studies:** Hagan, 1997 Nakamoto et al., 2007
Benchmark Workshop / Benchmark Taller	K–5	Reading and phonics Writing Grammar	Spanish and English (languages presented separately)	No
Benchmark Ready to Achieve / Listos y Adelante	PK	All developmental domains (e.g., language, math, science, early literacy, physical development, etc.)	Spanish and English	No. **Passed Texas's quality review**

high-quality teacher-child interactions as those that involve back-and-forth turn-taking, the use of open-ended questions, expansions of children's utterances, and nurturing language. A recent review of language interventions for young emergent bilinguals revealed that providing these children with wait time, being responsive, and following their interests led to positive language gains (Guiberson & Ferris, 2019). To date, research on teacher-child interactions on emergent bilinguals in early care and education has focused on the use of the home language (e.g., Rojas, 2021), the impact of teacher interactions on children's socio-emotional well-being and academic outcomes (e.g., Limlingan et al., 2021), and on their

cognitive development (White et al., 2020). Researchers have also conducted systematic reviews comparing teacher-child interactions for monolinguals versus multilingual children (e.g., Langeloo et al., 2019). The findings from this study concluded that although the nature of teacher-child interactions is the same for monolingual and emergent bilingual children, teachers tend to use the home language and communicate non-verbally when engaging with bilingual children. What's more, this study also revealed that teachers engage in fewer teacher-child interactions with children who are emergent bilinguals.

There is also a body of research supporting the value of facilitating children's peer interactions as a way to strengthen their fluency in both languages they speak (e.g., Chesterfield et al., 1982; Erdemir & Brutt-Griffler, 2022; Kim, 2016; Stephens et al., 2023). Stephens and colleagues (2023) found that in Head Start programs, peers can offer preschoolers with opportunities to communicate in Spanish or in both English and Spanish. Kim (2016) found Korean-English bilingual preschoolers' discussions about books that were read to them were more complex when peers were encouraged to speak to one another using their two languages at the same time. Similarly, Karem and Hobek (2022) found that when preschoolers who were emergent bilinguals were placed in dyads with monolingual peers and given visual and verbal cues with adult mediations, that they demonstrated greater initiations of social interactions and verbal/nonverbal communication. The findings of these studies underscore the importance of creating learning environments in which children have opportunities to engage with peers to further develop their bilingualism and social interaction skills.

General instructional strategies for emergent bilinguals. General instructional strategies are those that are not specific to one particular domain, such as early literacy and math, but rather instruction that can support learners across all domains. Although more research is needed, bilingual education scholars suggest using the same instructional strategies known to support monolingual children (e.g., guided learning opportunities, hands-on learning, individualized supports, etc.), and adding specific instructional strategies to facilitate children's bilingual development (Castro, 2011). In addition to dual language instruction, researchers with expertise on bilingualism recommend building on children's background knowledge, using graphic organizers (when developmentally appropriate), using multiple modalities including pictures and objects, making instruction concrete, providing hands-on learning opportunities, and offering children differentiated instruction in small groups or individually (Goldenberg, 2013; Partika et al., 2021). There also is emerging research supporting the value of explicitly facilitating children's cross-linguistic connections during instruction (e.g., Soto et al., 2020). This includes explicitly naming similarities and differences across languages to facilitate children's metalinguistic skills and encouraging children to share what they know using their entire language repertoire, which involves both named languages (e.g., Spanish, English) as well as multiple modalities (e.g., gestures, pictures, etc.) (Sánchez et al., 2018). More research is needed to empirically evaluate which domain-general instructional strategies are most critical for maximizing young emergent bilinguals' learning in dual language programs.

Language Learning Strategies for Young Emergent Bilinguals

- Repeated storybook readings and experiences that allow back-and-forth communication
- Explicit vocabulary instruction that makes connections across languages
- Predictable, repeated messages to understand new concepts
- Focus on teaching language through music, movement, dramatic play, and everyday routines
- Use of different modalities such as pictures, objects, gestures, videos, etc.
- Provide visuals and graphic organizers

Language learning supports. Findings from a recent review of language intervention studies focusing on young emergent bilinguals revealed that expanding on children's utterances, using storytelling, providing explicit vocabulary instruction, and making connections across languages are effective strategies for enhancing the language skills of young emergent bilinguals (Guiberson & Ferris, 2019). Despite the limited number of empirical studies, bilingual experts in early childhood have adapted what is presently known about effective language learning strategies for older students to offer guidance on how to best support young emergent bilingual children. For example, in California, the **Language Learning Project** was developed to create supports for young emergent bilinguals that any teacher could implement, including those who are monolingual English speakers. The Language Learning Project has a set of Preschool Oral Language Learning (POLL) strategies. One of these strategies is to offer young emergent bilinguals with rich language learning opportunities using storybook reading or experiences that allow them repeated exposure to new concepts and vocabulary, where they are engaged in back-and-forth communication (Language Learning Project, 2020). Another strategy is to provide explicit vocabulary instruction by making direct connections between the languages (Language Learning Project, 2020). For example, words that are cognates, or spelled and meaning the same like animal in English and animal in Spanish, should be presented side by side when introducing the word. For infants and toddlers, vocabulary selection should be based on their interests and what they are engaged in at the time. For preschoolers,

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> **"A paradox within bilingual education is that it maintains an explicit goal of bilingualism, biliteracy, and biculturalism, yet the approach to teaching and learning is largely derived from research and pedagogies designed for monolingual speakers of a single language."**
>
> HOPEWELL AND COLLEAGUES (2014)

Figure 9 RELATIONSHIP BETWEEN TRANSLANGUAGING PEDAGOGY, METALINGUISTIC AWARENESS, AND CROSS-LANGUAGE STRATEGIES

vocabulary chosen should be one that can be used in multiple contexts, like *sturdy, gigantic,* and *mushy.* A third strategy is to provide children with predictable, repeated messages to help them understand new concepts. For example, an educator might say, "Today I *observed* we are all wearing jackets. It must be cold outside" and then later in the day, "I *observed* a caterpillar outside. It was so big!" Another strategy is to embed movement, dramatic play, and music to support children's learning (Language Learning Project, 2020). All these strategies can be embedded in children's daily routines, such as during diapering for infants, during meals, during outdoor play, etc. Future research is needed to evaluate the effects of implementing these POLL strategies on bilingual preschoolers' language and early literacy development.

Cross-language strategies. Hopewell and colleagues (2014) note that "a paradox within bilingual education is that it maintains an explicit goal of bilingualism, biliteracy, and biculturalism, yet the approach to teaching and learning is largely derived from research and pedagogies designed for monolingual speakers of a single language" (p. 476). The rigid separation of languages in many dual language programs denies children the opportunity to enact their bilingual identities, analyze their bilingualism, and reflect on what it means to be bilingual. As described in the language allocation section, embedding a translanguaging pedagogy helps children develop metalinguistic awareness using cross-language instructional strategies (**Figure 9**).

The capacity to make cross-language connections is important for emergent bilingual children's metalinguistic awareness, or the capacity to consciously reflect on the nature of language (Bialystok & Ryan, 1985). Examples of metalinguistic skills include phonological awareness, syntactic (grammar)

awareness, and sound-level awareness. Cenoz and Gorter (2023) note bilinguals can engage in metalinguistics and leverage their linguistic resources to strengthen their cross-language vocabulary, grammar, pronunciation, and verbal expression skills. To date, there have been a dearth of studies evaluating the effects of providing young emergent bilinguals with explicit cross-language instruction to strengthen their metalinguistic awareness (e.g., Soltero-Gonzalez et al., 2016; Soto et al., 2020). Yet, some bilingual scholars have integrated existing knowledge of dynamic bilingualism to create frameworks for facilitating children's cross-language connection and supporting children's use of their entire language repertoires. Beemant and Urow (2013), for example, have a three-part framework for developing children's biliteracy which includes: (a) learning a new concept or literacy skill in one language; (b) creating a bridge, or cross-language connection, where both languages are presented side-by-side; and (c) completing extension activities in the second language of instruction. Another framework is Literacy Squared (Escamilla et al., 2014), developed to support children's acquisition of English and Spanish reading. Literacy Squared is for children in grades K–5, and it includes authentic instructional approaches in English and Spanish that are specific to the linguistic features of each language, and explicit instruction to facilitate children's cross-language connections. A study revealed that students in grades K–3 who receive biliteracy instruction through Literacy Squared

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Figure 10

EXAMPLES OF EARLY LITERACY CROSS-LANGUAGE INSTRUCTION FOR SPANISH-ENGLISH EMERGENT BILINGUAL PRESCHOOLERS

Soto et. al., 2020; Soto & McKenna, 2022

Example A: Lesson on segmenting words into syllables

Example B: Lesson on identifying first sounds in English with instruction provided primarily in Spanish

Example C: Lesson on alphabet letter sounds with explicit instruction to facilitate cross-language connections

had higher reading and writing skills on informal and state assessments in Spanish and English than those who received sequential reading instruction (Soltero-Gonzalez et al., 2016). Soto and colleagues' (2020) study focusing on the effects of providing Spanish-English preschoolers with cross-linguistic phonological awareness and alphabet knowledge instruction also yielded positive results.

In this study, the researchers provided intervention primarily in Spanish, but each lesson contained explicit cross-language connections where instruction remained in Spanish but children were given the opportunity to generalize the phonological awareness skills they practiced in Spanish with English words (see **Figure 10**). One unit of instruction — First Sound Identification — contained all instruction in Spanish but with English phonological awareness targets (e.g., c-at), as this skill is salient for English but not Spanish (see Example B, **Figure 10**). The children who participated in this study made significant, parallel gains in Spanish and English phonological awareness, highlighting the value of facilitating emergent bilinguals' cross-language connections.

Another way to help children make cross-linguistic connections is to help them complete contrastive analyses, where one identifies similarities and differences across languages. Solorza and colleagues (2019) note that contrastive language analyses can expand children's metalinguistic awareness and solidify their understanding of linguistic features in both languages (see **Figure 11**). These researchers described that after engaging in a contrastive analysis of comparative phrases in English and Spanish, students in a fourth grade class were given opportunities to express their understandings about language. When asked, *"What is something that's*

Figure 11

EXAMPLE OF STUDENT'S SELF-REFLECTION OF SPANISH/ENGLISH MORPHOLOGICAL STRUCTURES

Example of student's self-reflection of Spanish/English morphological structures from Solorza et al., 2019, p. 34.

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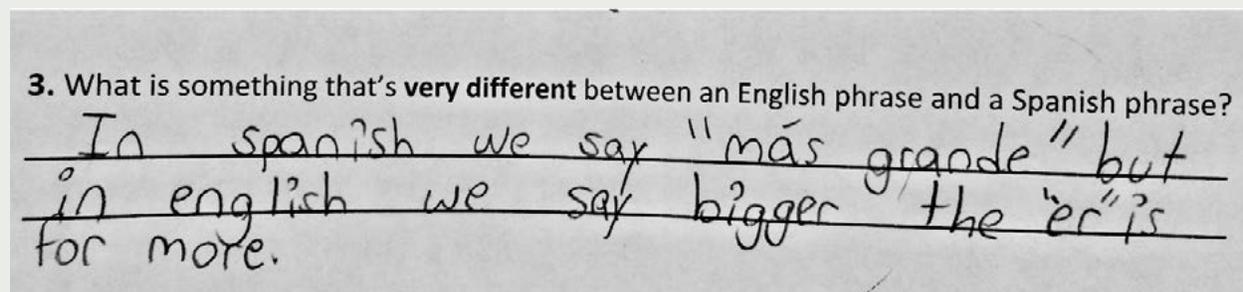
Translanguaging Strategies to Scaffold Children's Learning and Support Metalinguistic Awareness

- Use cognates to teach new vocabulary
- Use bilingual texts to support understanding
- Strategically pair/group children for discussion and projects
- Introduce students to new vocabulary using bilingual labels
- Use preview-view-review to teach new content
- Welcome flexible language use during brainstorming and planning process to scaffold the final learning goal
- Analyze phonological, morphological, and syntactic differences between languages

very different between an English phrase and a Spanish phrase?" one student explained a morphological difference between the word bigger in the two languages, stating that the morphological ending "*–er*" is used in English while the word *más* (more) has the same meaning in Spanish and must be used before the word *grande* (big).

Making cross-language connections is an integral part of embedding a translanguaging pedagogy within traditional language allocation models (see section on language allocation for details). Teachers should facilitate cross-linguistic connections to scaffold children's learning and understanding and develop children's metalinguistic awareness.

Howard and Simpson (2023) provide an overview of instructional approaches that can be used to support the cross-language connections of emergent bilinguals in preschool and higher within traditional language allocation models (**Table 4**). Yu and Reyes (2023) also recommend integrating writing to help preschoolers who are emergent bilinguals use their entire language repertoires to express themselves and make cross-language connections. For example, children could create self-portraits to help them identify their feelings at a particular moment, using drawings with different materials to interpret a song they hear, and/or drawing to retell a story. Teachers are encouraged to write down what children narrate about their drawings, using all

the languages children use to describe their drawing. It is also recommended that teachers model drawing and use their languages flexibly when describing these drawings. Further studies are needed to better understand how to implement these strategies in early childhood settings and the early grades.

Domain-specific instruction. There is very limited empirical research investigating how to provide effective, domain-specific instruction to young emergent bilinguals, particularly those enrolled in dual language programs. Although early childhood researchers support integrating various domains of development within play-based activities, it is important to note that other research also indicates that some children benefit from more explicit instruction on discrete skills such as phonological awareness and alphabet knowledge (e.g., Soto et al., 2020). Integrating domain-specific instruction within play-based activities has the potential to ensure that all children benefit from the instruction.

To date, the bulk of existing research has focused on language and early literacy instruction (e.g., Mendez et al., 2015; Pollard-Durodola et al. 2016; Soto et al., 2020), very few have evaluated instruction with dual language programs (e.g., Pollard-Durodola et al. 2016), and none have focused on infants and toddlers. Despite this, findings from existing studies support that young emergent bilinguals benefit from instruction in their two languages.

Language. Research on language instruction for young emergent bilinguals supports that interactive storybook reading and explicit vocabulary instruction are effective for enhancing language skills (e.g., Lugo-Neris et al., 2000; Mendez et al., 2015; Pollard-Durodola et al. 2016 2018; Restrepo et al., 2013). Mendez and colleagues (2015) found that when vocabulary instruction was delivered bilingually, and in the context of interactive book reading with multimodal strategies (e.g., drawings, hearing the word), child-friendly definitions, repeated instruction, and culturally relevant texts, that Spanish-English preschoolers who received bilingual vocabulary instruction outperformed those who only received English instruction. These findings are consistent with other vocabulary studies examining the impact of language of instruction on young emergent bilinguals' learning (e.g., Lugo-Neris et al., 2010; Restrepo et al., 2013). Additional promising strategies for offering oral language instruction to young emergent bilinguals include embedding language learning in all domains of learning, offering children opportunities to practice speaking in both languages, making cross-linguistic connections to foster metalinguistic awareness across languages, and using culturally relevant text thats are engaging to children (Escamilla et al., 2022; NASEM, 2017).

Table 4

OVERVIEW OF PEDAGOGICAL APPROACHES FOR FACILITATING CROSS-LANGUAGE CONNECTIONS WITHIN TRADITIONAL LANGUAGE ALLOCATION MODELS

This table is being reprinted with permission from Howard, E. R. & Simpson, S. (20v4). Dual Language Tandem Teaching: Coordinating Instruction Across Languages through Cross-Linguistic Pedagogies. Velazquez Press.

Approach	Purpose	Description	Language of Instruction	Examples
Synchronous Approaches				
Hybrid	To provide speakers of hybrid varieties an opportunity to process information in their home language, which is neither a monolingual variety of English nor a monolingual variety of the partner language; to raise awareness of and affirm the use of community language varieties. Can be used to address shared (ours) or unique (yours or mine) standards.	One or more standards is addressed through concurrent use of both program languages.	Both program languages are used concurrently, by one teacher alone or both Tandem Teachers working together.	Reading and writing texts that include examples of hybrid language use during a social studies unit on family histories; place-based learning projects.
Compare and Contrast	To promote the development of cross-linguistic awareness, particularly when noticing similarities in shared standards (ours) or pointing out language-specific features in unique standards (yours or mine).	Cross-linguistic similarities and differences related to one or more standars are noticed and discussed.	Both program languages are used concurrently, by one teacher alone or both Tandem Teachers working together.	Cognate charts; The Bridge (Beeman and Urow, 2013; Así se Dice (Escamilla et al, 2014)
Asynchronous Approaches *All include Linking Moments				
Switchback	To address shared standards (ours) efficiently and with increasing depth and complexity when instructional blocks for a given content area are provided through each program language on alternating days or weeks.	Standards for a given content area are addressed through a progression of non-repeating activities in alternating languages. The sequence for both the students and the Tandem Teachers is the same as it would be in a monolingual context, but for the students, instruction alternates between languages, and for the Tandem Teachers, instructional delivery alternates between the two groups of students.	Monolingual instruction is provided through both program languages in equal proportions, with students participating in alternating monolingual instructional blocks in English and the partner language on different days or weeks. Both the English teacher and the partner-language teacher address the same material at the same time, each with a different group of students. In other words, all students get alternating instruction in English and the partner language, and all students have access to all of the material, but the two groups don't engage with the same material in each language because they are with different teachers.	A math unit that alternates language of instruction day by day or week by week; a novel study in language arts that alternates instruction in English or the partner language chapter by chapter.

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Table 4   CONTINUED

Approach	Purpose	Description	Language of Instruction	Examples
Zipper	To address shared standards (ours) efficiently and with increasing depth and complexity when instructional blocks for a given content area are provided in both languages on the same day or on alternating days or weeks.	Each teacher takes alternating responsibility for different lesson components or skills that relate to shared standards within a given content area. In language arts, all components/skills are taught through both languages, but not on the same day, and possibly not in the same lesson. As a result, Tandem Teachers will need to work out a plan for alternating responsibility for different components/skills. For the students, the experience will be similar to the Switchback approach in that they will experience a continuous progression of the content that alternates between English and the partner language. For the Tandem Teachers, however, the experience is different, because they will only be teaching a given component or skill when it is allocated to them, and they will be repeating the same instructional activity for that component or skill with both groups of students. In other content areas, there may be more permanent division of components across languages, particularly when published curricular materials are only available in English.	Monolingual instruction is provided through both program languages in proportions that correspond to the lesson components that are taught through each language. The English and the partner-language teacher each take responsibility for different components or skills and teach those components or skills to both groups of students. In other words, both groups engage with the same material in the same language because one teacher takes responsibility for it and repeats the same activity with the second group.	Math lessons in which the focal lesson is taught in one language, and calendar time or number talks take place in the other language; language arts instruction in a half-day/half-day program in which different skills are taught in each language on any given day (e.g., reading groups in one language and writing mini-lesson in the other, and then the reverse on a different day).
Foreground Background	To extend content and language knowledge to the other program language for standards that are unique to each language (yours or mine), and/or to address a less complex shared standard (ours) in a more efficient way.	One or more standards is addressed explicitly in one language (foreground) and then reinforced formally or informally through instruction in the other language (background). Reinforcement may occur on one or more occasions and may take place across different content areas or during 'swing spaces' such as transitions or brain breaks.	Monolingual instruction is provided through both program languages, but in unequal proportions. Instruction is primarily carried out in one program language (foreground) with reinforcement in the other language on separate occasions (background).	Playing a freeze-dancing game in Spanish during a brain-break to reinforce math concepts (shapes) taught in English; doing a read-aloud in English language arts about feelings during a Spanish social studies unit on emotions.
Complementary	To extend content and language knowledge to the other program language for standards that are unique to each language (yours or mine) but conceptually related.	Unique but related standards in different content areas are addressed in one language or the other in a complementary way, often in the context of thematic instruction.	Monolingual instruction is provided through both program languages in proportions that correspond to the amount of instruction in each content area.	During a thematic unit titled 'Land and Sea,' students investigate weather in social studies in Spanish and the water cycle in science in English, thereby learning complementary concepts (such as precipitation), as well as core vocabulary such as rain, snow, and clouds.
Mirror	To ensure mastery of complex or particularly important shared standards (ours), and to facilitate the use of similar instructional routines across languages to address shared (ours) or unique (yours or mine) but related standards and skills, such as those connected to foundational reading skills and language-specific features.	A standard is addressed explicitly in one language, and the lesson or instructional routine is repeated in the other language, either in the same or a different content area. This approach should be reserved for particularly essential or complex standards or skills for which students in monolingual classrooms would also be likely to receive repeated exposure. In addition, while the focal standard or skill may be identical, the curricular materials should not be.	Monolingual instruction is provided through both program languages in equal proportions.	Using different books in English and the partner language to teach a repeated mini-lesson on distinguishing fiction from non-fiction texts; providing comparable literacy centers in English and the partner language to practice shared or unique but related skills (e.g., tracing letters, syllables, or high-frequency words in sand, rice, or shaving cream).

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Early literacy for preschoolers and students in the early grades. In addition to oral language, early literacy is a bedrock for children's academic skills. For children to develop into strong readers, they need word recognition (e.g., phonological awareness, phonics) and language comprehension (e.g., background knowledge, vocabulary, language structures) (Scarborough, 2001). Children in preschool and early elementary are developing the early literacy skills, such as phonological awareness, letter-sound correspondence, print awareness, and oral language, that facilitate their reading acquisition (Neuman & Dickinson, 2003). Research on effective early literacy instruction for young emergent bilinguals is presently limited; however, studies show that their skills are related across their languages (Anthony et al., 2011). Children with high phonological

awareness in one language are more likely to have higher phonological awareness in their second language (Lopez & Greenfield, 2004). Soto and colleagues (2020) found that when Spanish-English bilingual children received Spanish phonological awareness and alphabet knowledge training with explicit opportunities to generalize their learning to English, they made gains in informal and standardized Spanish and English early literacy measures. However, early literacy research is still needed to evaluate the best instruction in dual language programs serving preschoolers and early elementary-aged students. A recent report on effective early literacy instruction for emergent bilinguals in preschool from the National Academy for Effective Literacy (Herrera et al., 2022) noted that young children need opportunities to acquire early literacy in the two

Table 5 — **DIFFERENCES BETWEEN SPANISH AND ENGLISH LINGUISTIC FEATURES AND SKILLS NEEDED FOR DECODING**

(Soto et al., 2020)

	Spanish	English
Alphabet/accent marks	Spanish has the same letters as English with additional letters including ch, ll, ñ, rr (trill r like in *carro*); Spanish also has accent marks like in the word *papá* [dad] versus *papa* [potato]	ll English letters exist in Spanish, but English has sounds unique to the language (e.g., the final sound of garage, the th sound in *the* and *bath*, the sh sound in *shoe*, etc.)
Vowel sounds	Five vowels that only have one sound each	Five vowels that together have 14 sounds (e.g., one vowel has a long and short version)
Word structures	Mostly CVCV words (consonant-vowel-consonant-vowel); no consonant clusters at the end of words	CVC words most common; consonant clusters at the end of words (like in *boost*)
Gendered nouns	All nouns, including those that are inanimate, are gendered (e.g., *la mesa* [the table] is female versus *el carro* [the car] is male)	Nouns are not gendered
Orthography	Transparent, meaning that letters and sounds have a 1:1 correspondence	Opaque, meaning that a letter, or letter combination, can have two or more pronunciations (e.g., the "*gh*" in tou*gh* versus thou*gh*)
Syllable structures	3–4 syllable words are most frequent	1–2 syllable words are most frequent
Word order	Flexible word order (e.g., can drop the subject of the sentence and still make sense)	Less flexible word order (i.e., subject-verb-object sentence structures)
Decoding of words	Syllable level (e.g., ga-to [cat])	Sound level (e.g., c-a-t)
Phonological awareness of skills most important for decoding	Syllable segmentation and blending	Phonemic (sound-level) awareness including onset-rhyme (e.g., c-at), initial and final sound identification, etc.

The Science of Reading (SOR) and Young Emergent Bilingual Preschoolers and Students in the Early Grades

The Science of Reading *"is a vast, interdisciplinary body of scientifically-based research about reading and issues related to reading and writing. This research has been conducted over the last five decades across the world, and it is derived from thousands of studies conducted in multiple languages. The science of reading has culminated in a preponderance of evidence to inform how proficient reading and writing develop; why some have difficulty; and how we can most effectively assess and teach and, therefore, improve student outcomes through prevention of and intervention for reading difficulties."* (**Science of Reading: A Defining Movement,** The Reading League, 2021, p. 6).

Members from The Reading League (TRL) and the National Committee for Effective Literacy (NCEL) published a **joint statement** in 2023 on SOR implementation for English Learners/emergent bilinguals. The statement notes that bilingualism does not deter children from reading and that there is a pressing need to expand our understanding of how emergent bilinguals develop literacy in English versus multilingual settings. There is also a need for research studies to focus on how to implement effective literacy instruction for emergent bilinguals.

The joint statement highlights that effective literacy instruction that follows the SOR for emergent bilinguals includes:

- Offering comprehensive literacy instruction that includes language development, content knowledge, vocabulary, foundational knowledge for decoding (e.g., phonological awareness, phonics, etc.), comprehension, and writing
- Teaching foundational skills for decoding systematically and comprehensively to help children develop the alphabetic principle and become fluent, automatic readers
- Providing children instruction on how to map their oral language with writing
- Creating opportunities for children to integrate language, content knowledge, and writing during instruction
- Providing children with dual language instruction to help them become biliterate.
- Making cross-language connections to help children's acquisition of literacy across languages, and to leverage what they know in one language as they learn a parallel skill in their other language
- Ensuring children have access to entire language repertoires during instruction and assessment
- Exposing children to a variety of texts so they have opportunities to practice phonics skills in controlled/decodable texts, as well as to learn vocabulary and comprehension from more complex texts
- In dual language programs, providing children with foundational skills training in ways that are authentic to the language of instruction (e.g., syllable awareness for Spanish and sound-level awareness for English)
- Incorporating instructional materials and books that are representative of children's languages and cultures
- Embedding families' funds of knowledge and children's interests into instruction
- Using a variety of assessments in children's languages to guide instruction
- Providing ongoing professional development on how to teach emergent bilinguals

The statement highlights that effective literacy instruction that follows the SOR for emergent bilinguals is NOT:

- A "one-size fits all" curriculum
- Only providing universal instruction to everyone, or only providing intensive, small group reading instruction
- Forsaking English language development, home language maintenance, comprehension and vocabulary learning, to focus exclusively on phonics instruction
- Providing emergent bilinguals with only foundational instruction on phonological awareness or phonics
- Providing educators with minimal training on how to support the literacy development of emergent bilinguals

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[2] It should be noted that it is developmentally appropriate to provide preschoolers with early literacy instruction that sets the foundation for later reading skills. This foundational early literacy instruction includes oral language, vocabulary, comprehension, print awareness, phonological awareness and alphabet knowledge. Once children are in Kindergarten, it is developmentally appropriate to continue building these foundational skills and to start embedding phonics instruction within a comprehensive model for literacy instruction that targets language, content knowledge, writing, foundational decoding skills, etc.

languages of instruction by offering them a language and print-rich environment, providing exposure to text in English and their home language, and creating opportunities to develop oral language and vocabulary across languages, bilingual phonological awareness instruction, and explicit cross-language connections to help children build their metalinguistic awareness. Further, these authors recommend ensuring that emergent bilinguals starting in Kindergarten have comprehensive literacy instruction focusing on learning concepts, language learning (e.g., vocabulary, sentence formation, comprehension), and decoding (e.g., phonological awareness, phonics, etc.). They also recommend that writing be integrated into literacy instruction to help children make connections between oral and written modalities. These recommendations are in line with a study by Soltero-Gonzalez and colleagues (2016), in which children in grades K–3 who received Spanish and English literacy instruction with explicit cross-language connections outperformed those who received literacy instruction in each language sequentially on informal and state-mandated reading and writing measures. To create-cross linguistic connections, it is important to understand similarities and differences across

languages. **Table 5** provides an overview of the linguistic features of Spanish and English.

Socio-emotional. Findings from a systematic review synthesizing the current literature on socio-emotional development of emergent bilinguals from birth to five years of age indicated that emergent bilinguals have at least equal (if not better) socio-emotional outcomes compared to English monolingual peers (Halle et al., 2014). The authors concluded that given the limited number of studies available, additional research is needed to identify the contextual factors that impact emergent bilinguals' socio-emotional development, and how to support this development through explicit instruction embedded within play-based activities. In a later study, Malloy (2019) found that Spanish-speaking preschoolers showed more positive behaviors in classrooms where most children spoke Spanish and teachers provided high levels of socio-emotional support. To date, there is little research examining how to provide direct socio-emotional instruction to young emergent bilingual children, or the effects of dual language instruction on emergent bilinguals' positive raciocultural identities (e.g., Gao et al., 2022).

Sobrato Early Academic Language (SEAL) Model's P-3 Framework

The **Sobrato Early Academic Language Model** (SEAL)'s P-3 Framework (Olsen, 2023) is a set of pedagogical and system-design principles to create aligned practices for English Learners/Dual Language Learners (ELs/DLLs) preschool through grade 3, with a focus on language, literacy, learning and identity. The P-3 framework includes a statement of the vision, a rationale for the framework, eight key understandings, 11 overarching principles, aligned system components for coherence and impact, and reflection and planning tools for states and Local Education Agencies. The 11 principles that guide the P-3 system include having family partnerships, equity and advocacy-oriented leadership, strength based and assets oriented approaches, education for multiple languages and cultural worlds, commitment to meaningful access, language rich pedagogy and learning environments, policies, programs, and practices driven by research and knowledge, a focus on centralization and integration, teacher agency, instruction that is responsive, engaging, and joyful, and articulated language program pathways across grades to help children acquire English and biliteracy whenever possible. It should be noted that the P-3 Framework was developed to be implemented in various programs, including those that offer English-only instruction and those who are dual language. This P-3 Framework is built from the research base on EL/DLLs and the SEAL model which has been evaluated empirically (Center for Equity for English Learners, Loyola Marymount University and Wexford Institute, 2020; Lindholm-Leary, 2015). Researchers at Loyola Marymount University and Wexford Institute (2020) conducted a study to evaluate the implementation and effects of the SEAL model on 12 school districts in California across four years. Students in SEAL schools demonstrate increased engagement and positive outcomes in English and Spanish language, as well as in English language arts and mathematics achievement. The findings of the study showed that students in SEAL schools were reclassified as fluent-English proficient (known as RFEP in California), including those who were currently or previously classified as "English Learners," perform as well as or above their statewide peers. Furthermore, 91% of school principals reported that children receiving SEAL support were joyful and confident, with greater access and engagement to the academic content.

There also is a lack of research examining the impact of dual language instruction on the socio-emotional well-being and development of children with suspected or identified disabilities who are also emergent bilinguals. Further research is needed to understand how to best support the socio-emotional development of emergent bilingual children in ways that are linguistically and culturally sustaining.

Math and science. Research on effective math and science instruction for young emergent bilingual children is limited (Banse, 2021; Foster et al., 2019; Mendez et al., 2019). Mendez and colleagues (2019) found that young emergent bilinguals' oral language and numeracy skills are correlated, with children with higher language skills also having better numeracy skills (Mendez et al., 2019). Foster and colleagues

(2019) also found that emergent bilinguals' Spanish and English skills at the beginning of Kindergarten predicted their English math abilities at the end of Kindergarten. One promising approach to math and science instruction for emergent bilinguals is to help children embed language learning opportunities into the math and science instruction and to build on the concepts children know in one language so they can learn it in another language (NASEM, 2017). To date, there has not been specific intervention studies examining effective ways of providing young emergent bilinguals with dual language math or science instruction. There continues to be a pressing need to expand what we currently know about math and science instruction for this population.

What is the Reggio Emilia Approach?

The Reggio Emilia Approach is founded on collegial and relations-based work with the presence of a plurality of adults (teachers, *pedagogistas*, *atelieristas*, linguistic cultural mediators, other support staff, and families) with children. It affirms the rights of emergent multilingual children through all of its principles and practices, but especially through its emphasis on graphic languages that can support multimodal translanguaging and metaphoric language with young children in multilingual contexts. The Reggio approach insists that it is the responsibility of the schools to give value and equal dignity to all the verbal and non-verbal languages.

The Reggio publication, *Indications: Preschools and Infant-Toddler Centres of the Municipality of Reggio Emilia* (2010), indicates that:

- Children are active protagonists of their growth and development.
- Children possess a hundred languages, a hundred ways of thinking, of expressing themselves, of understanding, and of encountering others.
- Participation is the value and the strategy that defines the way in which the children, the educators, and the parents generate and nurture a culture of solidarity, responsibility and inclusion; a pedagogy of listening nurtures reflection, welcoming, and openness towards oneself and others
- Learning is viewed as a process of individual and group construction.
- Educational research is an essential dimension of the daily life of children and adults alike; educational documentation is integral and makes explicit, visible, and assessable the nature of the individual and group learning processes of both the children and the adults, processes which are identified by means of observation.
- Progettazione is a process of planning and designing the teaching and learning activities, the environment, the opportunities for participation, and the professional development of the personnel, and not by means of applying predefined curricula.
- The environment is an educator. Every feature of its spaces, equipment, objects, and materials are designed to support relations, well-being, and aesthetics. The environment interacts with, is modified by, and takes shape in relation to the projects and learning experiences of the children and adults.
- Professional development is given priority within the daily practices of observation, documentation, and weekly collective reflection during staff meetings and system-wide educational and cultural learning opportunities.
- Assessment is part of children's learning, the professionalism of personnel, and service organization and quality.

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C6 Biliteracy Framework

The C6 Biliteracy Framework (C6BF; Medina, 2019; Medina & Izquierdo, 2021) is an example of a culturally sustaining pedagogical approach that can be applied to dual language programs in grades PK–12. This framework is unique in that in addition to addressing the three pillars most commonly associated with bilingual education — bilingualism, biliteracy, and biculturalism — it also centers equity and social justice by addressing sociocultural competence and critical consciousness in every lesson. In this framework, lesson planning is treated as political act, as teachers are aware that the content and ideologies shared during instruction can either sustain children's positive raciolinguistic identities or deconstruct them in favor of English monolingualism and other identities that do not take into account children's diverse cultural, linguistic, ability, and other backgrounds. The C6 Biliteracy framework has six components (Medina, 2019):

Create and design authentic learning experiences that combine content, language, and culture.

- **What this looks like:** Teachers develop lesson plans with specific content, language (e.g., listening, speaking, reading, writing, metalinguistic awareness), and culture targets (e.g., connecting children to themselves, their communities, or the real world).

Connect learning experiences to students' authentic lives and language repertoires.

- **What this looks like:** Teachers facilitate spaces for translanguaging and cross-language connection and treat all language varieties ("formal" academic language vs. "informal" social language varieties) as equals.

Collaborate with students as facilitators of instruction, rather than treating children as if they can only receive information from teachers.

- **What this looks like:** Teachers ask students how they might solve problems in their communities; students' funds of knowledge are used to facilitate everyone's learning; differentiating instruction; engaging students in higher order thinking.

Communicate and model oral and written language while also facilitating authentic student-to-student interactions that represent the languages of instruction

- **What this looks like:** Teachers using icons during a lesson to explicitly note whether a lesson involves listening, speaking, writing, reading, or metalinguistic awareness; providing students authentic biliteracy instruction and presenting print supports in both languages of instruction.

Consider students' varied instructional needs to promote reflection and self-assessment.

- **What this looks like:** Teachers assess children bilingually using authentic measures that are not based on English monolingualism; clearly determining if the assessments used are measuring language, content, or both.

Commit, in collaboration with students, to developing learning environments focusing on continued improvement and service to other people.

- **What this looks like:** Teachers model how to articulate one's bias and acknowledging their advantages and ways to create a more equitable, just society; lessons encourage students to reflect and act to serve other people.

Pedagogy: Play-based, child-centered pedagogies with visual thinking strategies. Research supports that play is essential to the learning of young children (Bodrova & Leong, 2005). Play-based, child-centered pedagogies are those that allow children to lead their own learning through self-directed activities and embed multiple domains (e.g., cognitive, physical, social, etc.). Examples of these child-centered pedagogies in early childhood include Reggio Emilia, Montessori, and Waldorf. All these pedagogical approaches encourage children to explore their environments through all of their senses; offer children the opportunity to learn by observing, hypothesizing, testing, and problem solving; follow children's interests; and have learning environments engineered to spark children's curiosity. These child-centered pedagogies can be supplemented with visible thinking strategies like the ones from Project Zero, where children are encouraged to engage in conversation with adults about what they see, think, and wonder. These strategies also promote

children's critical thinking skills and ability to infer-two skills that are the foundation for reading comprehension. Emergent research indicates that Latine preschoolers enrolled in dual language Montessori programs have better social and academic gains (Ansari & Winsley, 2014; Rodriguez et al., 2003) and more flexible language use (Alamillo et al., 2016), than those who enrolled in other types of dual language programs. These results are consistent with a study that found that preschoolers enrolled in a dual language program that applied Reggio-inspired and Thinking Routines outperformed those who were enrolled in a traditional program in their language skills (Soto-Boykin et al., 2023). The findings from these preliminary studies highlight the importance, and potential value, of investigating how to embed child-centered pedagogies with visual thinking strategies in dual language programming for young emergent bilingual children.

Culturally sustaining pedagogies. Prominent types of asset-based pedagogies include culturally responsive practices (Gay, 2000), culturally relevant (Ladson-Billings, 1994, 2014) and culturally sustaining pedagogies (Paris, 2012). The aim of culturally sustaining pedagogy (CSP; Paris, 2012) is to disrupt deficit-based pedagogies that center White culture and Standardized American English as the default and other cultures and language varieties as "other." CSP is rooted in cultural representation, equity, and social justice.

Translanguaging pedagogies are one type of culturally sustaining pedagogies. Culturally sustaining pedagogies not only represent and validate children's identities, they also seek to preserve their identities while providing access to dominant white cultural norms (Paris & Alim, 2017). For example, instead of encouraging children to use their home language at home and English at school, and to never use their two languages at the same time, a culturally sustaining pedagogy would encourage children to communicate authentically (e.g., using both Spanish and English) in the learning environment. Additionally, curricular materials would embed children's cultural and linguistic practices, and the histories of their communities, and encourage children to stand up for justice in developmentally appropriate ways. One study examined the impact of embedding families' authentic cultural and linguistic backgrounds in storybooks and found that Latine preschoolers showed improved Spanish and English expressive language skills when parent-led language interventions embedded their identities (Hammer & Swayer, 2016).

The C6 Biliteracy Framework (Medina, 2019) is an example of pedagogical approach that is culturally sustaining as it not only targets the traditional pillars of dual language education (i.e., bilingualism, biliteracy, and biculturalism), it also centers equity and social justice by focusing on promoting children's sociocultural competence and critical consciousness. The C6 Biliteracy Framework has been adapted by a number of school districts, and additional research is needed to evaluate its effectiveness (Medina & Izquierdo, 2021). Further research is needed to operationalize what CSP looks like in dual language early care and education and to evaluate its impact.

Research Gaps and Future Directions

Research on effective language learning and domain-specific instructional practices for young emergent bilinguals is still limited. However, there is evidence that children benefit from instructional practices that connect what they know across their languages, and from embedding language learning opportunities throughout their daily routines. Most of what we know about instruction has focused on oral language interventions. Less is known about effective ways of providing early literacy, socioemotional, math and science instruction within dual language educational settings. There is also a need to investigate the effects of providing these children with instruction using child-led pedagogies in dual language education programs, and how to provide these children with developmentally appropriate, culturally sustaining instruction. Furthermore, research on effective instructional strategies for infants and toddlers and children with disabilities in dual language programs is sorely missing. Operationalizing and evaluating the effects of instruction for young emergent bilinguals is key in scaling up and advancing the quality of early childhood bilingual education.

ASSESSMENT

Overview

In early care and education, assessments are tools to gather and provide education teams and families with information about children's development and growth trajectories, as well as to inform teachers' professional development and ongoing quality improvement. Assessments have various purposes, including documenting growth; determining individualized instructional needs; guiding educators' professional development; screening for potential developmental delays or disabilities; and holding programs, educators, and state or federal agencies accountable. They also serve as the empirical backbone for research on the efficacy of particular pedagogical models and dual language instructional elements. For young emergent bilinguals in dual language programs, assessments should gather information on what they know across languages, and trained interpreters should be used when the team doing assessments does not speak the child's home language. Assessments should also be carefully selected to be linguistically and culturally valid to reduce the risk of bias. Child-, classroom-, and program-level assessments are important to inform the delivery of high-quality programming for young emergent bilinguals receiving dual language instruction.

Quality Indicators

- The program has a written assessment plan that includes home language surveys/interviews, and child-, classroom-, and program-level assessments (see **Figure 12**). The plan clearly explains the name of the assessment, its purpose, the frequency of assessment administration, who will be responsible for conducting the assessment, and a contingency plan for when changes to the assessment schedule or personnel implementing the assessment need to be made. Teachers have access to this assessment plan so that the leadership and the teaching staff are aligned with respect to the assessment type, frequency, and plan.

- Administrators seek input from families on the assessment plan, including major domains they think are critical to their child's learning and development and key dimensions of classroom- and program-level quality important to their family.

- Assessment results are transparent and shared with families in real time in the language(s) they are more comfortable in, with an interpreter if needed. Administrators refrain from withholding data from families in general or withholding it until the end of quarter or semesters.

- Administrators inform families when assessments will be conducted in advance, what assessments will be conducted, and the purpose of the assessments.

- Leaders choose assessments that are culturally and linguistically valid for the population of children in the program. For standardized assessments used with emergent bilingual children, assessment norms are based on bilingual children instead of monolingual children. For both criterion and standardized assessments, they are not a direct translation from English to Spanish.

- When culturally and linguistically valid assessments are not available, leaders and education staff partner with an interpreter to adapt other assessments, providing clear instructions on the purpose of each assessment, its content, and the skills being assessed. In addition, other forms of informal data (i.e., multiple observations, caregiver interviews, work samples, etc.) are used to evaluate children's performance.

- When an interpreter is not available, the leaders and education staff work with a community member or volunteer who speaks the child's language to interview the caregivers, conduct observations, and share their impressions of children's performance.

- Leaders ensure that home language survey (HLS) data are collected at program entry for each child. The HLS contains questions such as the language or language(s) the child is exposed to at home, who their

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top three communication partners (e.g., parent, sibling, grandparent) are at home, and the language(s) the child-adult speak during weekdays versus the weekend, the language(s) children use to speak at home depending on who the communication partner is, and exposure to each language outside of or beyond their interactions with the top three communication partners (e.g., extended family, neighbors, television, music). HLS data are used to help determine children's initial fluency in their spoken languages. HLS data are also used to inform instructional support, interpret assessment results, help inform which two languages will be chosen for the dual language program (e.g., Spanish and English versus Haitian Creole and English) based on community needs, help inform allocation to instructional models in dual language education settings (e.g., 90/10 versus 50/50), and to report disaggregated data by home language(s) to inform programmatic, policy, and funding decisions.

- **Program-level assessments are:**
  - Conducted at least annually to identify areas of strengths and limitations across various aspects of the program, including the leadership, policies, human resources, teaching and learning, finances, family and community engagement, etc.
  - Informed by parent, child, and educator perspectives.
  - Reviewed routinely to make necessary changes to the program's strategic plan.

Figure 12 TYPES OF ASSESSMENTS TO INFORM DECISION-MAKING IN HIGH-QUALITY DUAL LANGUAGE PROGRAMS
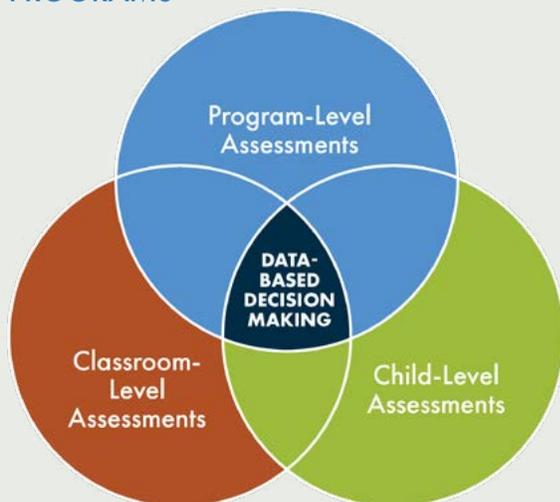
What is Dynamic Assessment?

Most, if not all, standardized and criterion-referenced assessments only capture what children know at one point in time. A limitation of these one-time, stagnant assessments is that they may miss what children truly know, may assess a child on a day that is not favorable to them, and that they do not capture the level of support children need to show more advanced skills. On the other hand, dynamic assessment (Tzuriel, 2001) is a type of assessment that, instead of being conducted one time, is conducted over time to determine how children respond to additional instruction and support. Dynamic assessment uses a test-teach-retest approach. The goal of dynamic assessment is to determine children's zone of proximal development (Tzuriel, 2001), or the level and type of support they need to go between their current level of performance and the next complexity of the task.

Dynamic assessments can be done both in one-on-one sessions with teachers or in the context of small groups. These assessments can be done across a couple of days or weeks, or in the same assessment session, depending on the type of skill being assessed. For example, children's verbal expression can be assessed by gathering a language sample (test), then the teacher can provide language modeling while children are engaged in play together (teach), and then the teacher can record children's language interactions during play with peers another day to determine children's growth in their verbal expression (e.g., vocabulary, length of utterances, instances of turn-taking, etc.). (test). In a one-on-one setting with a child, the teacher can assess the number of letter sounds the child knows (test), provide guided modeling of three to four letter sounds at a time using visuals, pointing, and repetition (teach), and then reassess the child's knowledge of the letter sounds taught (test). Dynamic assessment reduces test bias by providing children opportunities to show their skills once they have been given sufficient time to practice a skill (Peña et al., 2001), and allows educators to identify the types of support that children need to progress from their current level of performance to the next.

- **Child-level assessments are:**
  - Conducted bilingually as appropriate.
  - Targeted to all developmental and academic domains (appropriate for age group), and include measures specific to tracking children's bilingual development, or fluency in each language over time.
  - Administered by trained personnel who are fluent in the language of the assessment, or with the use of a trained interpreter when needed.
  - Inclusive of various sources of data to gather the most complete understanding of children's strengths and areas for growth. This includes observations, dynamic assessments, family interviews, work samples, etc.
  - Modified as needed to implement conceptual scoring (see page 61 for definition) to capture more accurate information about what children know across all their languages.

- **Classroom-level assessments are:**
  - Holistic measures of quality that capture several domains, such as teacher-child interactions, classroom management, linguistic interactions, emotional responsiveness and support, quality of instruction in each language, quality of translanguaging supports, the implementation of anti-bias/anti-racist practices, the quality of inclusion of children with disabilities, etc.
  - Focused on observing quality indicators specific to dual language instruction, such as the Classroom Assessment of Supports for Emergent Bilinguals (CASEBA).
  - Adapted or created when not available to specifically measure dual language programs, by having program administrators collaborate with bilingual researchers and consultants with expertise in dual language education to create a measure to evaluate the fidelity of implementation in each language and cross-language connections during instruction.

- Both child and classroom-level assessment data are routinely reviewed by the administrators, educators, families, coaches, caregivers, and other relevant parties to strategize how to improve the program, how to adapt instruction based on individual children's strengths and needs, the types of coaching, professional development, and support teachers need, etc.

Spotlight: Assessment

INFANTS/TODDLERS

At Luna, infants and toddlers' overall development is assessed using the Ages and Stages Questionnaire, and their socio-emotional development is measured using the Devereux Early Childhood Assessment. These measures capture children's skills across their two languages.

PRESCHOOLERS

At Luna, classroom-level, teacher-level, family-level, and child-level assessments are used. A program-developed family survey is used to gather information about parents' beliefs about bilingualism. Data from this survey is used to guide annual meetings with families and to address any concerns or fears they might have about bilingual language development. The CLASS is implemented at the beginning and end of year to establish annual professional development goals, and a teacher-level assessment is used to identify and address implicit bias. Child-level assessments are administered in English and Spanish when available. A team of trained education students from the local university administer the Spanish and English Preschool Language Scale-5 and the Peabody Picture Vocabulary Tests. Additional assessments include the Bracken School Readiness Assessment, Devereux Early Childhood Assessment, the Ages and Stages Questionnaire, and a state-mandated assessment for preschoolers. The data collected is used to confer with parents, guide professional development, refer children to be evaluated for suspected delays or disabilities, and set program goals. At the end of each year, the mentor teacher reviews the data with classroom teachers to identify strengths, trends, and areas for growth. Data are also reviewed to guide small groups and to adapt instruction to children's specific needs.

EARLY GRADES

At Flor Elementary School, students in grades K–2 have their reading skills assessed in Spanish and English, math in their preferred language, and writing in the language children are instructed in. Data from these measures is used to guide professional development goals and to offer children with Multi-Tiered Systems of Support, where children receive targeted instruction in the skills that need additional growth.

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- Teachers are trained on how to review child-outcome data to identify children who need additional support, to evaluate the effects of teaching practices, and to make modifications to their instruction (e.g., small group versus individual instruction, frequency of instruction, etc.).

Research

Research on assessments for young emergent bilinguals is limited. However, current research indicates that best practices for assessing these children include gathering information about their bilingual development using a home language survey, assessing what children know across languages over time, using culturally and linguistically valid measures, and ensuring that assessments chosen match their intended purpose (Peña & Halle, 2011). In early childhood dual language programs, child- and classroom-level assessments should be used to screen and progress monitor, assess children's development in specific domains and track their bilingual growth and trajectories, measure the quality of dual language instruction, and guide strategic planning and educators' professional development.

CHILD-LEVEL ASSESSMENTS

Research indicates that gathering information about children's home language using a home language survey is an important first step when assessing children who are emergent bilinguals (Kohnert, 2007). Typical questions in home language surveys include:

1. What language(s) are spoken to the child at home during the weekday versus weekends?
2. In what language(s) and/or modalities do the children respond in?
3. At what age was the child exposed to each language?;
4. What is the function of the communication? (e.g., talking to grandparents, reading at school, etc.)

The findings from home language surveys can be used to identify the language(s) the child should be assessed in (i.e., whether only in their home language or bilingually), to discern if a child needs English learning supports, and to determine the languages that need to be represented in dual language programs (e.g., languages of instruction, curriculum and assessment, staff, etc.). To optimize the accuracy of home language surveys, researchers recommend moving away from questions that assume only one language is spoken at home, such as "What is the primary or home language other than English?" (Salerno & Andrei, 2021). Instead, researchers recommend revising home language surveys to capture children's current language using open-ended questions such as, "How do children communicate with [communication partner]?," "What language(s) do children use to communicate with [communication partner]?," or "What languages is the child exposed to home, community, etc.?" (Salerno & Andrei, 2021).

There is also research supporting that children who are emergent bilinguals need to be assessed in their two languages, with attention given to what they know across languages (Espinosa & García, 2012; Peña & Halle, 2011). One major limitation of many assessments available in languages other than English is that many are direct translations of English and do not consider the linguistic features of other languages (Hambleton & Zenisky, 2011). What's more, research indicates that most standardized assessments, even when available in languages other than English, are not normed not on bilingual children, but on monolingual speakers (Sánchez et al., 2003). They also present the languages separately, which does not capture what children know across their entire language repertoires (Sánchez et al., 2018). Conceptual scoring, or counting a response correctly, regardless of the language, is a more equitable approach to bilingual assessment (Bedore et al., 2005). Conceptual scoring allows children's overall linguistic knowledge to be better represented (Ascenzi-Moreno & Seltzer, 2021).

There is also research indicating the importance of not only relying on standardized assessments when evaluating the skills of young emergent bilinguals (e.g., Nair et al., 2023; Valdez & Figueroa, 1994). Standardized assessments are static, meaning that they only provide insight into what children know at one point in time. Because the bulk of standardized assessments are normed on monolinguals and based on the norms of White children from the middle to upper class, they do not accurately identify the strengths of children of color who are emergent bilinguals (Sánchez et al., 2018). The reliance on standardized assessments alone is associated with the misrepresentation of emergent bilinguals in special education (Valdez & Figueroa, 1994). A more well-rounded, equitable approach in assessments includes gathering a complete picture of children's abilities using various forms of information, including parent reports, direct observations, informal assessments, language and work samples, and dynamic assessments (Soto-Boykin et al., 2021). Dynamic assessments are measures that use a test-teach-retest approach (Tzuriel, 2001). The goal of dynamic assessments is to determine children's zone of proximal development, or how much support they need to grow from where they are, to the next level of performance (Tzuriel, 2001). Further research is needed to explore how to implement and scale-up more dynamic assessments to determine children's growth and evaluate the quality of early childhood dual language programs.

Another important assessment component to consider in dual language programs is measures of children's bilingual development over time. Examples of measures of bilingual fluency for early childhood include the preLAS: The English Language Proficiency Assessment and preLAS Español for preschoolers (three to four years old) until the first grade. These measures evaluate children's language fluency and early literacy skills. There also is a version of these assessments for students in grades K–12, the LAS Links English and LAS Links Español. These measures evaluate children's language fluency within and across content areas, including math, science, history, and language arts. There have been limited studies on these measures (e.g., Aikens et al., 2020; Rainelli et al., 2017; Rumper et al., 2023). Reinalli and colleagues (2017) concluded that the English preLAS could be a helpful tool to include within a more comprehensive battery of language assessments for emergent bilingual preschoolers. Rumper and colleagues (2023) used the preLAS to determine the relationship between Spanish-English preschoolers' language fluency and executive functioning and their academic and socio-emotional outcomes. These authors concluded that regardless of which language children were most dominant in, those with stronger language skills — regardless of the language — also had higher executive functioning, academic, and socio-emotional skills. Other measures of Spanish-English fluency include the IPT Early Childhood Language Screener in Spanish and English, and the Pre-IPT in Spanish and English for preschoolers between three to five years old. There also is a version of the assessment for students in grades K–12, the Online IPT. Siders (2003) conducted a comparative evaluation of the preLAS and Pre-IPT. This researcher concluded that both assessments could be used to discriminate between children who were and were not fluent in a language and that both were adequate for measuring children's growth in a language over time. However, the PreIPT was a better tool to identify preschoolers' language fluency, while the PreLAS may underestimate children's overall language skills. More studies are needed to evaluate the validity of these measures, and others, to determine children's bilingual language trajectories in dual language programs.

CLASSROOM-LEVEL ASSESSMENTS

In dual language programs, classroom-level assessments are designed to evaluate the quality of teacher-child interactions, the frequency and function in which each language is used, and to determine the overall quality of instruction. Commonly used classroom quality measures such as the Classroom Assessment Scoring System (CLASS; Teachstone, n.d.) and the Early Childhood Environmental Rating Scale-Revised

(ECERS-R; Harms et al., 1998) are not designed to measure the quality of instruction in dual language classrooms, nor do they include items that meaningfully address emergent bilinguals. However, these two classroom measures are the ones most used in Head Start Programs and on Quality Rating Improvement Systems (QRIS). Consequently, it is difficult to accurately identify the extent to which programs are providing quality instruction to emergent bilinguals (Meek et al., 2022). There is a limited, but growing body of research, focusing on developing and validating classroom observation tools specifically designed for emergent bilinguals. The Classroom Assessment of Supports for Emergent Bilinguals (CASEBA; Freedson et al., 2011), Language Interaction Snapshot (LISn; Sprachman et al., 2009), and Early Language and Literacy Classroom Observation-Dual Language Learner (ELLCO-DLL; Castro, 2005) are three assessments that have been developed to assess the quality of instruction for young emergent bilinguals. All three assessments require a trained observer for administration and are not yet commercially available. What's more, these three measures specifically assess the quality of language and early literacy instruction. More research and funding are needed to scale-up the CASEBA, LISn, and ELLCO-DLL and to develop and validate holistic classroom observation tools and/or to adapt existing, widely used measures like the CLASS and ECERS-R to include indicators specific to emergent bilinguals.

Another important type of classroom-level assessment for early care and education dual language programs are measures of bias and anti-racist practices. One tool used to measure anti-bias practices is the Assessing Classroom Sociocultural Equity Scale (ACSES; Curenton et al., 2020). ACSES is an observation measure of educators' challenging of the status quo, provision of equitable learning opportunities, equitable discipline, connections to home life, and personalized learning opportunities. In a multiple case study, Soto-Boykin and colleagues (2023) found that one program uses a measure that evaluates equity in five focus areas: environment, interactions, curriculum, language use, and family engagement. This measure is the Early Childhood Equity-Focused Classroom Observation Tool, which administrators of the program co-developed with other organization. The measure can be used as a self-reflection tool for individual educators and staff, or as an observation measure conducted by another person. This measure can be used for action planning and for guiding professional development; however, it is not publicly available. More research is needed to scale up this type of bias and equity measure for use in dual language programs serving young emergent bilinguals.

PROGRAM-LEVEL ASSESSMENTS

Program-level assessments allow for the evaluation of comprehensive services to children and families in dual language programs. Presently, there are two program-wide assessments specifically designed to evaluate dual language programming for young children: the **Dual Language Learner's Program Assessment** (DLLPA) from the Office

of Head Start and the Guiding Principles for Dual Language Education (Howard et al., 2018).

The DLLPA was designed to evaluate the extent to which Head Start, childcare, and PK programs are providing effective management and program services to children who are dual language learners and their families. The DLLPA is based on the Head Start Program Performance Standards and is

Overview of Three Classroom Observation Tools for Dual Language Programs Serving Young Children

CASEBA The CASEBA (Freedson et al., 2011) is a domain-specific tool that measures the quality of language and literacy supports that educators provide emergent bilinguals with. This measure has 26 items organized in six broad categories: (1) gathering background information; (2) cultural inclusion; (3) curriculum content; (4) support for the home language and English acquisition; (5) socio-emotional support and classroom management; and (6) assessment. The CASEBA requires a one-day training with three to four site visits to establish reliability. Although the CASEBA is not publicly available yet, there are a number of studies that have been done to establish its validity (e.g., Castro et al., 2011; Figueras-Daniel & Li, 2021). Figueras-Daniel and Li (2021) evaluated the validity of the CASEBA in 82 state-funded PreK classrooms serving 376 three-and-four-year-old children. The classrooms had three different configurations: 1) Spanish-speaking lead teacher with an English-speaking assistant; 2) English-speaking lead teacher with a Spanish-speaking assistant; and 3) Spanish-speaking lead teacher with a Spanish-speaking assistant. The findings of this study revealed that the CASEBA was a better tool to identify instructional components specifically tailored to emergent bilinguals than the ECERS-R, which is not designed specifically for this population.

LISn The LISn is an observational measure to identify the quantity and quality of language use in early childhood classrooms with emergent bilinguals (Sprachman et al., 2009). The LISN is a time-sampling observation measure to examine the preschool language environments of emergent bilinguals. The LISN is administered by a trained observer who focuses on a child's verbal interactions with the lead teacher, other adults in the classroom, and other children. Each child is observed for 10 cycles of 30 seconds each (total of five minutes), which create "snapshots" of the interactions children are engaged in before moving on to the next child. Observations are done over two hours. Data is coded in term of teachers' language interactions across three categories: (1) respond to child talks by repeating, confirming, and elaborating on what the child says; (2) use teacher talk to give directions, requests contextualized language, provide information, names, and labels, and provide or elicit decontextualized information; and (3) implement easy talk such as "wow," or "good job" during reading, singing, or other language interactions. The LISn is not yet publicly available but has been researched (e.g., Durán et al., 2023; Franco et al., 2019; White et al., 2019). White and colleagues (2019) found that when using the LISn, the home language support domain of the tool was the most predictive of children's outcomes.

ELLCO-DLL The ELLCO-DLL (Castro et al., 2005, 2017) is an instrument adapted from the original ELLCO (Smith et al., 2002) developed to measure the quality of classroom language and literacy practices particular to emergent bilinguals. The ELLCO-DLL is comprised of three subscales: (1) Book Selection, Book Use, Writing Materials, and Writing Around the Room; (2) Classroom Observation which is made up of General Classroom Environment Checklist and Language, Literacy, and Curriculum; and the (3) the Literacy Activities Rating Scale. A number of studies have used the ELLCO-DLL as part of their classroom measurement tools (e.g., Castro et al., 2017; Gillanders et al., 2017; Sawyer et al., 2016; White et al., 2020).

divided into two parts: management systems and program service areas. Management systems are composed of communication, human resources, training and professional development, and program planning and service system design. Program service areas are made up of education and child development program services (e.g., teaching and the learning environment, curricula, child screenings, and assessments), health program services, family and community engagement, and transition services. Programs can self-assess using the DLLPA to determine their strengths and areas of growth. The DLLPA can also be used to plan for training and professional development, write reports, and track progress through ongoing monitoring. It should be noted that the DLLPA was designed to evaluate services for children who are DLLs but not specifically for those enrolled in dual language programs. It is currently not a required assessment for Head Start Programs. Although the DLLPA was developed to align with Head Start, this measure is free and publicly available. Further research is needed to determine the validity and scalability of the DLLPA for programs outside of Head Start, and to determine how the DLLPA can be embedded in Head Start's current monitoring and accountability system.

Like the DLLPA, the *Guiding Principles for Dual Language Education* (Howard et al., 2018) is a tool designed to support administrators of dual language K-8 programs to engage in ongoing reflection, planning, and improvement. This tool has guiding principles organized into seven strands that reflect the primary dimensions of program design and implementation: (1) program structure; (2) curriculum; (3) instruction; (4) assessment and accountability; (5) staff quality and professional development; (6) family and community; and (7) support and resources. Administrators completing this tool can determine the extent to which their practices are exemplary. This tool is currently publicly available and free of cost. One limitation is that it does not address dual language early care and education.

Research Gaps and Future Directions

More research is needed to develop and validate tools that are culturally and linguistically valid for young emergent bilinguals. Research is needed to expand the current number of assessments that are available to measure children's bilingual and domain-specific development, especially tools that capture what children know across both languages. Furthermore, existing classroom observation tools specifically designed for emergent bilinguals only address early literacy and language and are not yet commercially available, and there is a need to scale up measures of equity and bias in dual language programs. More funding and research are needed to expand the current child and classroom-level assessments needed to implement high-quality early childhood dual language programming.

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WORKFORCE, CREDENTIALING, AND PROFESSIONAL DEVELOPMENT

Overview

High-quality early care and education dual language programs need well-trained and fairly compensated educators that are highly skilled to support children's bilingual development and overall academic, cognitive, and social development, including the skills to support children with disabilities who are also emergent bilinguals. Bilingual educators should be equitably compensated by ensuring that teachers who provide instruction in the language other than English are paid on par with or more than monolingual English teachers. Doing so recognizes the unique value of their language skills and training and addresses the current bilingual teacher shortage in the U.S. Educators should also receive ongoing professional development to expand their understanding and implementation of research-supported strategies for providing instruction and conducting assessments with bilingual children, including bilingual children with disabilities.

To ensure that programs have highly qualified bilingual teachers, there should be pathways for recruiting and retaining staff, including programs to support paraprofessionals, parents, and other community members to become certified teachers. Educators in dual language programs should be proficient (i.e., speaking, listening, reading, writing) in the language they provide instruction in and have expertise around bilingual development and dual language instruction, specific to the age group of children they are teaching. This expertise should be layered on base credentials, including a Child Development Associate or a comparable state credential for infant/toddler teachers and a bachelor's degree with specialization in bilingual early childhood education or comparable training and experience for preschool and elementary school teachers (NASEM, 2015).

Quality Indicators

- The program has a recruitment and retention plan to ensure that they have a qualified workforce of teachers in each language of instruction.

- The program supports educators who are paraprofessionals or assistant teachers and parents — particularly those who speak the non-English partner language — to become certified lead teachers by, for example, securing financial support, allowing flexible schedules, and identifying partners who can provide other educational supports, like mentorship, childcare, transportation, tutoring, or advising services.

- The teacher who instructs the non-English partner language has at least the same compensation — and ideally greater compensation to acknowledge the added value, complexities, and experiences needed to teach in a partner language — as the teacher who provides English instruction, and both share the same status and type of position (e.g., lead teachers).

- The program ensures that teachers have adequate base educational training specific to the ages of children they are serving, and accept quality, alternate credentials, such as degrees attained in other countries — particularly degrees conferred in the non-English partner language. These credentials may include:

  - **Infants/toddlers:** Minimum of CDA or comparable credential, with specialization and/or experience in infant and toddler care.

  - **Preschoolers:** Bachelor's degree, ideally in early childhood bilingual education or comparable training and education.

  - **Early grades:** Bachelor's degree, ideally in bilingual education or with bilingual endorsement or comparable training and education.

- Teachers in dual language programs have basic competencies that all teachers should have, including an understanding of socio-emotional supports, positive

behavior guidance, effective instruction, etc., but also possess additional competencies specific to bilingual education. They should demonstrate knowledge and competency in:

– The research on bilingual language development and second language acquisition.

– How to provide bilingual oral language and developmental/academic instruction based on children's current developmental stage and level of fluency in a respective language or languages.

– How to identify differences and similarities across languages.

– How to make cross-language connections during instruction.

– How to embed lessons and instructional content to support children's development of their positive bilingual identities and cross-cultural consciousness.

– How to implement culturally sustaining practices, including translanguaging pedagogies, within existing language allocation models.

– How to conduct bilingual assessments and screeners.

– How to gather and use home language survey data.

– How to partner with and engage families, especially when there is not a linguistic match between teachers and families.

– How to make referrals for screening/assessment and provide inclusive services to emergent bilinguals with suspected or identified delays or disabilities in dual language settings.

• Teachers receive ongoing professional development to grow these competencies using various formats, including weekly, biweekly, or monthly job-embedded coaching, communities of practice, and in-service sessions throughout the year.

– Coaching and in-service training is provided by individuals who are experts on bilingualism and dual language instruction, and they include opportunities for teachers to learn from each other.

– Child and classroom-level data, as well as teachers' self-identified areas of desired growth, guide the focus of the personalized professional development plan.

Spotlight: Workforce, Credentialing, and Professional Development

PRESCHOOL

Bright Bilinguals Center developed a program to increase their number of qualified bilingual educators by training parents of children who have attended the program. They partnered with their local community college to provide interested parents with Child Development Associate (CDA) courses in Spanish, partnering with funders to offer scholarships. Parents who participate in CDA courses are eligible to participate in an apprenticeship program at Bright Bilinguals Center, which provides hands-on experience and coaching within a five-star licensed dual language program. Since the program launched in 2020, over 100 caregivers have completed early childhood coursework, and 21 mothers have participated in the apprenticeship program.

PRESCHOOL/EARLY GRADES

Estrella Public Charter School is a preschool and elementary school in which teachers receive ongoing professional development. Each year, administrators ask teachers and other staff to complete The New Teacher Project's (TNTP) Instructional Cultural Insight survey. This survey is used to gather feedback on the extent to which teachers are satisfied with the school culture, supports they receive, observations and feedback, etc. Data from this survey is used to identify the priorities that administrators will target during professional development for the year. An instructional leadership team is responsible for supporting teachers' capacity and hone their instructional skills. At the end of each year, teachers meet with their instructional leaders to review children's performance data and to reflect on what was successful and what could use improvement. These data are used to determine individual teachers' professional development goals. Further, teachers are part of Professional Learning communities (PLCs) that last three years. Teachers also attend external in-service trainings and share their knowledge with each other and the instructional team to reinforce the idea that learning is not only a top-down process. To ensure that dedicated time is reserved for professional development, at the end of each unit (four times a year), students have a day off from school to give time for teachers and the instructional team to review quarterly student data to make adjustments to instruction as needed.

Research

BILINGUAL WORKFORCE FOR INFANTS,TODDLERS, AND PRESCHOOLERS

Data from the National Survey of Early Care and Education (U.S. Department of Health and Human Services, 2019) indicate that nationally, 32% of teacher aids and 25% of lead teachers speak language other than English in center-based early childhood programs. According to the 2023 Program Information Report (PIR) from the Office of Head Start, 31% of Early Head Start/Head Start education staff speak a language other than English, with 80% speaking Spanish. Crosby and colleagues (2023) released a report describing the language and educational backgrounds of early childhood educators working in center-based and home-based programs in which 25% or more of the enrollment were Latine children. Data from this report revealed that one in five center-based and home-based teachers and caregivers worked in programs in which Latine children made up 25% or more of the population. Fifty percent of these teachers in the center-based programs were Latine and 57% spoke a language other than English. In addition, 68% of teachers in home-based programs were Latine and 72% spoke a language other than English. In programs in which Latine children made up 25% or more of the enrollment, 29% of teachers in center-based programs had bachelor's degrees, compared to 15% of home-based providers. Fifty-eight percent of center-based program teachers and 66% of home-based providers had an ECE credential or certificate. What's more, most of these teachers working in center-based programs (77.2%) were more likely to receive ongoing professional development than those working in home-based programs (36.8%). These data illustrate the need to ensure support for the workforce serving young Spanish-speaking emergent bilingual children, especially those who might be served in home-based programs where they could receive bilingual instruction.

BILINGUAL WORKFORCE IN K–12 SETTINGS

Currently, there is no national data on the demographic characteristics of K–12 teachers in dual language programs (Cramer & Ryan, 2020). However, there is national data on the language and racial/ethnic demographics of K–12 teachers overall (National Center for Education Statistics, 2020). In terms of language, 13% of educators in K–12 speak a language other than English at home, which is less than the national average, 22%, across all people in the United States (Williams, 2023). In terms of racial and ethnic diversity, most K–12 public school teachers are White (79.3%), 6.7% are Black, 9.3% are Latine, and 2.1% are Asian (National Center for Education Statistics, 2020).

More data are needed to make more precise estimates of the demographic and educational characteristics of the bilingual teacher workforce, as well as to identify their average wages and work settings. Data are also needed to identify the number of bilingual educators who hold leadership positions and those trained in bilingual special education, disaggregated by demographic variables across work settings.

WORKFORCE BARRIERS

Although Latine educators, and others who speak language(s) other than English, are critical to serving emergent bilinguals in early care and education dual language programs, these educators face significant barriers to entering and remaining in the field of early care and education (e.g., Greenburg & Luetmer, 2022). These barriers are wide-ranging and include insufficient language access to higher education programs, limited information about the education system in the United States, complex immigration challenges, limited funding to attain higher credentialing, the need to balance personal and professional responsibilities, inflexible course offerings, and supervisors who do not have knowledge of bilingualism (Greenburg & Luetmer, 2022; Waldschmidt, 2010). Undergirding these barriers are structural factors, including systemic racism, that have resulted in significant barriers for people of color to access higher education (Mahatmaya et al., 2022; Vargas, 2021) and remain in the workforce once they obtain degrees (Grooms et al., 2021). Other institutional challenges found in early childhood include the lack of articulation between credentials, AAs, BAs, and beyond; lack of coordination across the ECE system, with varying licensure and education requirements across states and program types; the lack of professional credentialing standards that include bilingual instruction and bilingual development; and the limited number of early childhood education programs that prepare teachers to work with bilingual children (Hao & Syed, 2018). Furthermore, there is currently a bilingual teacher shortage in K–12 schools, which was exacerbated by the COVID-19 pandemic (Torre Gibney et al., 2021). The Comprehensive Center Network (CCN) (Torre Gibney et al., 2021) has a report describing bilingual teacher shortages. CCN is a Department of Education funded organization featuring 19 federally funded regional technical centers and one national center. According to their report, more than half of states nationwide are experiencing bilingual teacher shortages, and the states with the most acute shortages are those that provide bilingual education to the greatest numbers of emergent bilinguals who are English Learners (Torre Gibney et al., 2021). These shortages are associated with obstacles when retaining, recruiting, and certifying bilingual educators, inadequate compensation, and poor working conditions.

For example, bilingual teachers often translate instructional materials outside the work hours without receiving additional compensation for their time and skills. Furthermore, the process of becoming a certified bilingual educator can be daunting — and expensive. In some states, educators need additional schooling and examinations in addition to their teaching licenses to become certified. Policymakers must reduce these barriers to prepare a qualified bilingual workforce for dual language programs.

RESEARCH-SUPPORTED STRATEGIES FOR INCREASING THE NUMBER OF BILINGUAL EDUCATORS

To date, most research on effective strategies for recruiting and retaining bilingual educators is based on K–12 teachers (e.g., Torre Gibney et al., 2021). Only a few studies have focused specifically on bilingual educators, although they target elementary and middle/high school teachers (Flores et al., 2002; Gardner et al., 2019; Waldschmidt, 2010). Still, the current research can inform effective strategies for recruiting and retaining bilingual teachers in early childhood DLI programs (e.g., Flores et al., 2002; Gardner et al., 2019; Waldschmidt, 2010). These research-supported strategies (**Table 6**) include strengthening teacher pathways to increase the number of qualified bilingual educators and reduce the number of people who leave the field, providing financial incentives to attract and retain bilingual educators, and improving working conditions (Torre Gibney et al., 2021).

Creating a teacher pathway. Research has identified a number of recruitment strategies to create and strengthen the teacher pathway including disseminating information about bilingual education and/or career advancement in professional organizations, high school summer programs, college nights, parent groups, and through "word of mouth" (Diaz & Mahadevan, 2011). Recruitment should also target paraprofessionals and parents interested in advancing their career. To retain teacher candidates, research supports that it is beneficial to create partnerships between programs and institutions of higher education; offer flexible scheduling and academic supports such as tutoring and test preparation; provide candidates with financial assistance including paid tuition, childcare, supplies, etc.; remove barriers such as English-only instruction and English only testing; and to have faculty and staff who understand bilingualism and have cultural humility (Diaz & Mahadevan, 2011; Waldschmidt, 2010).

One promising model for recruiting bilingual educators is Grow Your Own (GYO) programs (García et al., 2019, 2022). GYO programs recruit members of the community to become educators and have been implemented at the state and local levels. For example, in 2015, Washington state legislators

Barriers Impacting the Bilingual Educator Workforce

(Hao & Syed, 2018; Greenburg & Luetmer, 2022; Torre Gibney et al., 2021)

- Courses and trainings are not offered in languages other than English
- Limited information on how to become a credentialed teacher in the U.S.
- Difficulty transferring credentials attained outside of the U.S.
- Immigration challenges
- Difficulty with articulation across credential and degree levels
- Limited funds to pay for the tuition needed for credentialing
- Inflexible course offerings (e.g., rigid scheduling that conflicts with work)
- Supervisors lack training on bilingualism
- Higher education programs rarely emphasize early childhood dual language education
- Inadequate compensation for bilingual skills
- Poor working conditions
- No mention of bilingualism in professional licensure requirements

invested $5 million to fund GYO programs to increase the number of qualified, diverse teachers (García et al., 2022). In 2016, a program targeting bilingual paraprofessionals was launched in the Highline Public School District. These paraprofessionals were in cohorts and received wraparound services, including flexible course scheduling, scholarships, and assistance applying to local universities. In the first year of its launch, the two-year program resulted in 94% retention, with 15 paraprofessionals having a teacher certificate and 13 accepting positions in the school district where they were recruited from (García et al., 2019). In a preschool dual language program, a GYO program targeted Spanish-speaking parents (Gadaire & Jerez, n.d.; Soto-Boykin et al., 2023). These parents were given access to receive early childhood development training in Spanish in the local community college to become either home visitors or preschool teachers. They then completed internships in the program children attended and received support to complete their CDAs. In the last three years, 100 parents have completed the program. This is a promising model that has the potential of being implemented successfully with bilingual

paraprofessionals and parents of children in programs in early childhood settings, as they are an untapped resource that could be vital for implementing high-quality dual language programming and addressing existing bilingual teacher shortages (Connally et al., 2017).

Two other promising models include residency programs and teacher mentorship programs (Torre Gibney et al., 2021). Residency programs are modeled after medical residencies and can attract non-traditional teaching candidates. Candidates can receive teaching experience while taking classes and complete their training within two years. For example, the Boston Teacher Residency program places teacher candidates in Boston schools, while offering training, stipends, and paid tuition if they commit to teaching in Boston schools for three years after graduating. In teacher mentorship programs, experienced teachers provide regular mentorship to new teachers by doing regular check-ins, supporting

planning, and providing additional feedback. For example, the New Teacher Center is a national program that matches seasoned teachers with new teachers across the country.

Financial incentives. Another research-supported practice for increasing and retaining a strong bilingual teacher workforce is to provide practicing teachers with increases in their salary and benefits if they complete a bilingual educator endorsement (Torre Gibney et al., 2021). Bonuses and other financial incentives can also be implemented to attract bilingual educators. Some research has found that unpaid clinical practice experiences can be uniquely challenging for bilingual teacher candidates — who come from low-income households at disproportionate rates (Williams & Zabala, 2023). Additional financial incentives include offering scholarships, tuition subsidies, student teaching fellowships or stipends, and loan forgiveness, in addition to providing in-kind incentives such as subsidized meals and housing assistance

Table 6   MODELS FOR RECRUITING AND RETAINING BILINGUAL EDUCATORS

Strategy	Definition	Examples
Create a teacher pathway	Identifying potential teacher candidates in the community (e.g., high schoolers, paraprofessionals, parents, etc.) and providing them with support to receive their teaching credentials.	• Grow Your Own Programs • Residency programs • Teacher mentorship programs • Disseminating information about the field through "word of mouth"
Offer financial incentives	Providing incoming and existing bilingual educators with added salaries and bonuses for their bilingual skills.	• Offering benefits • Providing stipends for bilingual student teachers • Providing scholarships and loan forgiveness • Paying for tuition to become credentialed • Giving out meal subsidies or paying for school materials when candidates are enrolled in courses • Providing signing bonuses or other compensation bumps to reflect candidates' valuable language abilities
Improve the working conditions	Ensuring that bilingual educators' working conditions are positive and supportive to maintain them in the workforce.	• Providing them with sufficient instructional materials in the language(s) they teach • Giving teachers autonomy • Allowing teachers to collaborate with other teachers • Training program leaders and staff to ensure that the entire school environment is supporting of bilingual programming

while teachers complete their qualifications to become bilingual educators. Signing bonuses or other compensation incentives that reflect the value of bilingual teachers' unique language skills can also help to address persistent bilingual teacher shortages.

Improving working conditions. A third research-supported strategy for retaining bilingual educators is to improve their working conditions (Torre Gibney et al., 2021). Improving working conditions for bilingual educators includes providing them with sufficient resources (e.g., instructional materials, curricula, etc.) to provide instruction in the language other than English; allowing for teacher autonomy and supporting teachers' collaboration with one another; and providing leaders and all staff with training so everyone is equally invested in strengthening bilingual education. Other dimensions of working conditions include small class sizes and ratios, adequate breaks, opportunities for advancement, and access to fair compensation and benefits (Meek et al., 2020; Palomino et al., 2023).

EDUCATOR COMPETENCIES AND TRAINING

In addition to having a workforce that is recruited, retained, and well-compensated, high-quality early care and childhood DLI programs need educators to be highly skilled to foster children's bilingual, biliterate, cognitive, and social development. Teachers who speak the language of instruction and represent children's and families' cultural backgrounds are not necessarily equipped to implement high-quality dual language instruction without explicit training on bilingual education and early childhood education and/or elementary education, as relevant.

PROFESSIONAL DEVELOPMENT

For DLI educators in early care and education to effectively embody these competencies, they need intensive, targeted, and ongoing professional development (PD) (Lopez & Paez, 2020). What's more, PD must address common misconceptions and biases related to young emergent bilinguals and what they can accomplish, information on how to identify emergent bilinguals, how to embed multiple languages in the learning environment, and how to appropriately assess emergent bilinguals (Ramirez et al., 2020), among others.

Empirical research to date on effective PD models for educators working with emergent bilinguals in early care and education is limited. Among the studies available, few have focused specifically on evaluating the effects of PD on educators working in DLI classrooms or on how to support

infants and toddlers (e.g., Buysse et al., 2010; Castro et al., 2017; Gardner-Neblett, 2020). The format, duration, and content of the current PD programs that have been developed and evaluated vary, ranging from the delivery of a one-time online module (e.g., Gardner-Neblett, 2020) to PD programs that last multiple years and include coaching, in-service trainings, and job-embedded coaching (e.g., Buysse et al., 2010; Castro et al., 2017). Nuestros Niños is one promising, comprehensive PD program designed to support monolingual and bilingual early childhood teachers working with emergent bilingual preschoolers (Buysse et al., 2010; Castro et al., 2017). The components of this program include PD institutes to enhance teachers' acquisition of core content and skills, individualized consultation sessions to support implementation of new strategies, and communities of practice to provide educators opportunities for feedback, reflection, and collaboration. Castro and colleagues (2017) found that teachers who completed Nuestros Niños made greater gains in the quality of instruction overall, and in the use of strategies specific to emergent bilinguals. Children whose teachers completed the PD program showed greater gains in math, writing, and receptive vocabulary, when Spanish and English responses were accepted at the same time. Moreover, children with two bilingual teachers who participated in the PD program for two years made greater gains in alphabet knowledge than those in the control group. In terms of English gains, children whose teachers participated in the PD program had higher expressive vocabulary skills than those who did not receive training. The findings from this study show preliminary evidence of the benefit of targeted PD programs to support young emergent bilinguals. Further studies are needed to identify specific ways of training early care and education teachers working in DLI programs.

Research Gaps and Future Directions

A well-qualified and fairly compensated workforce is key for implementing a high-quality dual language program for young emergent bilingual children. Additional research is needed to develop and evaluate effective pre-service credential and degree content, as well as in-service professional development for early care and education educators working in dual language programs.

FAMILY LEADERSHIP AND ENGAGEMENT

Overview

In high-quality dual language early care and education, families receive authentic opportunities for leadership and engagement; their knowledge and expertise are integrated into the instruction and program environment and activities; they have access to information in their home language(s); and they receive comprehensive supports — including information about community resources and guidance to transition from preschool to Kindergarten. Furthermore, careful attention is given to ensure that the voices of families of color from under-resourced communities are centered and made a priority, as they are often less likely to be heard and valued.

Quality Indicators

- In early childhood and the early grades, families are treated as children's most important and first teachers. This concept is woven throughout the program's philosophy and mission, policies, and practices.
- Education staff partner with families to help them continue fostering children's growth and development, including bilingual development, based on families' priorities and desires for their children.
- The voices, opinions, preferences, and priorities of Latine, Black, Indigenous, and other families of color, especially those from low-income communities, who have historically been marginalized and overlooked, are actively sought and prioritized in decision-making.
- All administrators and staff receive ongoing professional development (e.g., in-service training, coaching, communities of practice) to ensure they are equipped to co-partner with families of color who speak a language other than or in addition to English. At a minimum, training topics include:
  - How to communicate with families of color in ways that are responsive to their cultures and values.

Examples of Equitable Family Engagement in Dual Language Programs

- Scheduling program-wide meetings, parent meetings (including a Parent Teacher Organization for the early grades), and other community events at flexible times and in diverse ways (e.g., in person, virtual) to accommodate families' schedules and preferences.
- Ensuring that racial, ethnic, linguistic, and cultural backgrounds are represented in parent leader groups, including PTO, in line with the demographics of children served and the broader community.
- Ensuring that all spoken and written program communication is translated and/or interpreted in languages that families speak.
- Using the program's non-English language(s) as the first (or default) language(s) of communication or presentation, then translating or interpreting into English.
- Creating affinity groups to enable families — and staff — of different racial, ethnic, linguistic, cultural, and other identity backgrounds, to meet to discuss their experiences, express common challenges, raise questions, share ideas about issues that matter to them, and ensure that these concerns and ideas are heard, considered, and implemented, as appropriate.
- Embedding families' expertise and interests into program activities and lessons.
- Gathering data on barriers that impact families' engagement at the program and reducing these barriers to the extent possible (e.g., offering childcare, flexible scheduling, transportation vouchers, referrals to social service programs, etc.).

- How to develop relationships with families that encourage reciprocal, two-way communication.
- How to communicate to families the importance of maintaining their home language(s).
- How to partner with families to engage them in the learning environment, help them find community resources, and support them to advocate for their children.

- All of the communication that happens in the program (e.g., written, verbal, email, website, etc.) is available in the language(s) the families speak and is presented to them in a way that is clear and easy to understand.

- For preschoolers and students in the early grades, teachers meet with families at least quarterly and ideally more often to discuss children's areas of strengths, as well as areas for growth using data from child assessments.

- The program has targeted outreach and engagement strategies to ensure that families, especially those who are either bilingual or do not speak English, are aware of and engage in opportunities to participate in parent advisory councils or other parent leadership groups.

- Teachers meet with families before the start of the year to get to know the children, listen to families' academic and developmental goals for their children, identify what topics they want to learn more about, establish communication norms that work for all parties, and share with families opportunities to partner with teachers and serve in leadership positions at the program or school.

- Program staff communicate to families the value of maintaining their home language(s) and help them dispel negative myths about bilingual acquisition, especially for children with suspected or identified disabilities who are also emergent bilinguals.

- Program leaders and education staff recognize and uplift the Indigenous languages spoken by families (e.g., Náhuatl, Garífuna, Yucatec Maya, and Quiché) and contribute to the preservation of these languages by incorporating them in the school environment and interactions, and by communicating to families the value of maintaining their Indigenous language alongside the two languages of instruction.

- For children transitioning from preschool to Kindergarten, program administrators, educators, and local education agencies (LEAs) collaborate with families to plan the transition, including helping families locate and apply for elementary dual language programs when these programs are relevant and available.

- Families who recently immigrated to the United States are given support to help navigate systems, access resources, and support their children's development, including sustaining and growing their home language(s) and fostering their emerging bilingualism.

How Families Can Share their Cultures, Traditions, and Interests Authentically in the Learning Environment

- Families record their favorite lullabies in their preferred language(s) so the infants and toddlers can listen to them during nap time.

- Families take turns bringing an item from home that corresponds with the letters preschoolers are learning at the time.

- During lessons about community helpers, families are invited to talk about the roles they play in the community.

- During a phonological awareness lesson targeting rhyming, families are asked to send a video of themselves singing their favorite rhyming songs in the language(s) they speak.

- When K–2 students are learning about music, a caregiver who is a musician leads a lesson with the students to talk about the instruments that are traditional in their home country (e.g., in Puerto Rico, a *cuatro* [a guitar-like instrument] and a *güiro* [instrument made of a large seed] are played during the holidays).

- Program leaders and education staff cultivate positive, nurturing relationships with children's families by engaging in regular two-way communication informally (e.g., during drop-offs or pick-ups, family nights, etc.) and formally — at least weekly, sharing information on goals and activities for the week, instructional or curricular themes, new milestones children reach, and social or emotional strengths, concerns or incidents. Teachers and administrators are approachable and available to answer questions or address concerns in a timely manner. Teachers contact families regularly to share positive things children do, rather than contacting them primarily with behavioral or academic concerns.

- Families' cultures, traditions, and interests are embedded into learning activities, and family members have opportunities to volunteer in the classroom to share their experiences and talents and contribute to instruction.

- The program offers families various opportunities for family engagement and leadership throughout the year, including informational sessions on the topics that families identify as important (e.g., bilingual development,

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Operationalizing High-Quality Dual Language Programming: From the Early Years to the Early Grades
The Children's Equity Project & The Century Foundation

Spotlight: Family Leadership and Engagement

INFANTS, TODDLERS, AND PRESCHOOLERS

At Esperanza Center, the philosophy toward family leadership and engagement is that parents are children's first and foremost teachers, and that they are key in co-creating the opportunities needed for children to thrive. The program has a Family Advisory Council that helps make decisions about the school. Two caregivers are chosen from each campus and given the opportunity to provide input on school decisions. During Family Time, caregivers are encouraged to co-create meaningful learning experiences, including interactive storytime, field trips to the community, visits to the public library and holiday celebrations.

Families also have opportunities to expand their skill sets as they receive trainings on a wide range of topics, such as bilingual language development, neuroplasticity, prevention of sexual abuse and domestic violence, and teen mental health. They are also encouraged to be part of "Esperanza Center Voices for All," in which they identify social issues (e.g., additional transit subsidies, health insurance reform) that impact them and testify in local legislative meetings. Lastly, Esperanza Center also offers families holistic care by housing a community service program on site. This community service program includes access to medical and dental care, mental health supports, social services (e.g., WIC, domestic violence support, energy assistance programs), and educational opportunities, including English classes and job training.

EARLY GRADES

Estrella Public Charter School is culturally, linguistically, racially, and socioeconomically diverse. To ensure all families are engaged and empowered, the school offers group and individual family-focused activities. These activities include home visits to all incoming and current students to inquire about families' dreams and hopes for their children that school year. There are also parent-teacher conferences accompanied by Parent Expos, where families can learn about community-based resources. There are also wraparound workshops on issues that are relevant to families, as well as opportunities for learning, such as garden-based nutrition and cooking demonstrations at their monthly food market. They also have cultural celebrations that include Latine and Black Heritage Month events. Careful attention is given to ensure that families' voices are heard equitably. For example, they explicitly communicate with parents that the vision and mission of the school is to ensure that children from historically and contemporarily marginalized backgrounds have equitable access to the DLI education they may not have access to traditionally.

how to support children's academic development, PK–K transitions, how to continue bilingual education once children matriculate from the program); Parent Cafes, parent-led groups where they share concerns and offer solutions to one another, or other support groups where families can learn from each other; cultural heritage events; and community-building activities (e.g., food justice workshops for gardening and learning about nutrition, community art projects).

- The program provides information to families of children with suspected or identified disabilities about their rights under the Individuals with Education Act (IDEA) and Section 504 of the Rehabilitation Act, how to access a family advocate and/or navigator to support them, how to connect with Parent Training Information Centers, the process of determining eligibility for special education and related services, and Individual Family Service Plans (IFSPs)/Individual Education Plan (IEPs).

Research

Research on family leadership and engagement in dual language immersion early care and education is sorely lacking. However, studies focusing on Latine parent engagement in dual language programs serving older children have found that parents are strong believers of fostering their children's bilingualism and academic success (Grosso et al., 2021). Successful strategies for engaging these parents include teachers establishing two-way communication, using communicative practices that align with their preferences (e.g., social media versus email), meeting them outside of school hours to accommodate their working schedules, and offering a safe space where they could ask questions about bilingual development and other topics (Grosso et al., 2021). Other studies have found that it is beneficial to offer these families opportunities to volunteer in the programs, make school-to-home

connections about how to support children's development, and for them to receive training opportunities advance their skills, including to learn English, complete their GEDs, and ensure the physical safety of their children (McWayne et al., 2013). Furthermore, families are more engaged when their funds of knowledge — or topics they are experts in — are embedded meaningfully in children's learning experiences (Cho & Votava, 2021; Lopez et al., 2021; Yosso, 2005), when they receive positive messaging around bilingualism, and when programs share activities they can do at home in their home language and English to boost children's development (Martin et al., 2022). For example, in a study by Soto-Boykin and colleagues (2023), administrators of high-quality dual language programs reported that they engaged families by having them participate in the school's gardening and nutrition programs, and that they held family nights where families shared meaningful aspects of their cultures and traditions. In one program, the administrator noted that they conduct surveys at the beginning and end of the school year to identify the topics that families want to learn more about, and they hold monthly meetings where parents educate one another on one of these topics, with expert guests whenever necessary.

Research also indicates that Latine and other families of color experience barriers that hinder their leadership and engagement (e.g., Cho & Votava, 2020; Mancilla, 2016; Norheim & Moser, 2020), as well as their familiarity with the U.S. school system for students in grades K–12 (Mavrogordato & Harris, 2018). These barriers include having reduced access to information and participation due to a lack of interpreters and/or translated materials, power differentials between educators and parents, and cultural differences on what is considered the role of educators versus families (Norheim & Moser, 2020). For families of students who are emergent bilinguals in K–12th grade who have recently immigrated to the U.S., barriers might also include reduced experiences navigating the U.S. public school system, including unspoken cultural expectations to participate in parent engagement activities such as field trips and parent-teacher conferences (e.g., Sattin–Bajaj, 2014). Additionally, for some families, it might be contrary to their cultural values to question educators' authority (Bernhard et al., 1998). For families of children in early care and education who speak a language other than English and/or who are Latine and others of color, other barriers include not feeling empowered to take leadership positions due to the limited representation of their home language(s) in meetings and events, even when educators state they support bilingualism (Cho & Votvava, 2020). Indigenous families from Latin American countries — who are widely perceived as Latine Spanish-speakers (Baquedano-López, 2019) — often do not feel comfortable disclosing that they speak an Indigenous language and alter their language practices to speak more Spanish so they don't stand out linguistically (Machado-Casas, 2012). Need-based assessments, where families offer input about the topics they want to learn about and the economic, educational, employment, and health supports they would benefit from, can be helpful tools to support families (Sabol et al., 2018). What's more, research indicates that Latine and other parents of color in dual language programs do not have equitable representation in leadership positions, as White families from middle-to-upper class communities are often perceived to have more social capital and are more likely to have their desires honored (Olivos & Lucero, 2020). Therefore, Olivos and Lucero (2020) recommend that dual language programs collect parent satisfaction data that captures whether families of color feel that their needs and desires are heard.

There is emerging research on different programs or approaches to reduce these barriers and elevate parent engagement and leadership in dual language immersion programs (e.g., Lopez et al., 2021; McWayne et al., 2022; Melzi et al., 2018; Sabol et al., 2018). A common theme among these studies is the effectiveness of fostering community among parents (e.g., McWayne et al., 2022; Porter, 2018; Sabol et al., 2018). For example, McWayne et al. (2022) found that Latine parents of children enrolled in Head Start reported high levels of engagement when they were part of parent-led groups focused on connecting learning between the school and home during already existing "coffee hours." Porter (2018) also found that having ongoing opportunities for Latine and White families to co-learn and engage with each other created cross-cultural understanding and collaboration. More research is also needed to identify more effective ways of increasing parent leadership and engagement in dual language early care and education programs.

A number of studies have examined the impact of the Parent Institute for Quality Education (PIQE; Her, 2013; Martin & Espinosa, 2008). PIQE provides programming to California families and schools, especially targeting families of children who are emergent bilinguals, immigrants, refugees, and low-income. The goal of PIQE is to empower families to engage in their children's education and strengthen parent-teacher-school collaboration. They have various programs, including Family Literacy (K–3), Early Childhood Development, Social Emotional Development (K–12), and their Signature Family Engagement Programs (K–12). PIQE is also being expanded to 14 states and Mexico City. Research on the effects of PIQE found that in 2010–2011, the high school graduation rates of students in Latine families who participate in the program are higher (91.1%), compared to those who do not participate (77.1%). Further research is needed to evaluate the impact of PIQE on the academic outcomes of younger children who are in preschool and early elementary school.

Research Gaps and Future Directions

There continues to be a need for studies that specifically examine how to best ensure that families, especially those who are Latine and others of color, have meaningful and authentic engagement and leadership opportunities in dual language programs serving young children. Further research is also needed to identify how to best define what high-quality family leadership and engagement looks like in these settings, and how to effectively support these families so their voices and interests are centered and valued in dual language immersion programs.

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SERVICES AND INCLUSION FOR EMERGENT BILINGUAL CHILDREN WITH DISABILITIES

Overview

In high-quality dual language education, children who are emergent bilinguals and have suspected or identified disabilities receive their special education services in inclusive settings, and children who are suspected of having a disability are assessed in their home language, or bilingually as needed. Services are delivered in their home language and English, with coordinated support to ensure both their bilingualism and overall communicative, physical, cognitive, socioemotional development are supported. To accomplish this, children who are emergent bilinguals with suspected or identified disabilities are served by a multidisciplinary team (e.g., special and general educators, home visitors, speech language pathologists, occupational therapists, etc.), and general education teachers receive professional development from inclusion coaches with expertise on bilingualism and special education. Furthermore, programs have explicit policies and procedures to facilitate timely bilingual screening and referrals and coordination of special education services. Families are supported in seeking referrals, evaluations, and services as needed, and in fostering their child's development, including their bilingual development.

Quality Indicators

- Children with disabilities who are emergent bilinguals receive special education services in inclusive learning environments with their peers. They are explicitly not excluded as a matter of policy and practice, including by requiring entrance exams that may unintentionally result in the exclusion of children with disabilities.
- Children's bilingualism and overall development are both supported intentionally.
- Program staff share information and resources with families to support children's overall development, including their bilingual development. Research is shared to emphasize that children with disabilities can become bilingual without causing additional difficulties or delays.

- General and special educators collaborate to implement the goals of the IEP or IFSP in the classroom or program. The special educator and/or early interventionist works with the general education teachers or childcare provider to create modifications and provide individualized instruction to ensure children with disabilities are meaningfully included in all aspects of the program (e.g., instruction, centers, outdoor and indoor play areas, etc.).
- The program has written policies and guidance on how to conduct screenings and referrals, how to support families as they navigate the eligibility process, and how to support educators so children can receive services in inclusive learning environments with non-disabled peers.
- All teachers and staff in the program have training on bilingual language development in children who are emergent bilinguals with suspected or identified disabilities; how to conduct screeners and referrals for children who are emergent bilinguals; the IDEA, IEP and IFSP processes; how to collaborate with special education personnel; and accessible and inclusive instruction in dual language settings.
- To the extent possible, the program staffs or contracts bilingual special education personnel (e.g., speech-language pathologist, occupational therapists, physical therapists, mental health counselors, psychologists, etc.) with knowledge of bilingual development. When a bilingual therapist is unavailable, monolingual therapists (or those who are bilingual but do not speak children's language(s) are vetted to ensure they have training and understanding about research-supported assessment and intervention practices for emergent bilinguals with suspected or identified disabilities. If these therapists are not available, the program partners with the therapist or related service providers to build their capacity and understanding of dual language development.

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Spotlight: Services and Inclusion for Emergent Bilingual Children with Disabilities

EARLY GRADES

At Flor Elementary School, all children with disabilities who are also emergent bilinguals receive inclusive, dual language instruction. Each grade level has an inclusive classroom where children with and without disabilities receive dual language instruction in Spanish and English using an itinerant co-teaching model. An **itinerant co-teaching model** pairs a special educator and a general educator, who work together to provide children with disabilities instruction that is aligned to the goals on their Individual Education Plan (IEP). At Flor Elementary, the educators work together to implement a **Universal Design for Learning (UDL)**, which is a framework for planning and executing instruction that allows for multiple representations, ways of demonstrating knowledge, and forms of engagement to ensure that the learning content is accessible to all children from the start, rather than modifying instruction for children with disabilities after the curricula and instruction are selected. Each year, a new group of children without disabilities are selected to receive instruction in the inclusive classroom so they can co-learn and collaborate with children with disabilities.

Research

There is currently very little research explicitly focusing on infants/toddlers and preschoolers who are emergent bilinguals with disabilities, especially those in dual language programs. There is limited research focusing on emergent bilinguals who are English Learners in grades K–12. Because there is limited reporting on the number of young children who are emergent bilinguals who are receiving special education services or early intervention, it is difficult to determine the proportion of young emergent bilinguals with identified disabilities in the U.S. However, according to the National Center for Education Statistics (2023), 15.5% of the five million English Learners in the country from grades K–12 have disabilities.

One of the primary misconceptions about children with disabilities is that they cannot develop bilingually; however, research supports that they can indeed develop bilingually without delays or confusion (Guiberson, 2013; Kay-Raining et al., 2016; Reetzke et al., 2017). Reetzke and colleagues (2017) found that children with autism exposed to one or two Chinese languages were not negatively affected by bilingual exposure. In line with these results, Kay-Raining and colleagues (2016) conducted a systematic review of the literature on bilingual development in children with three types of developmental delay: autism, Down's Syndrome, and Specific Language Impairment. The authors concluded that these children could become bilingual, regardless of diagnosis; however, their level of fluency in each language was related to the frequency and amount of exposure they had in that language. Despite existing research, several factors contribute to these misconceptions and the consequential exclusion of children with disabilities from dual language programs, including the fact that most emergent bilinguals are only assessed in English, that educators and special educators have limited training on bilingualism, and that federal and state policies lack an intersectional approach to bilingualism and disability (Artiles et al., 2010; Cioè-Peña, 2017; Soto-Boykin et al., 2024).

Most of the current research on emergent bilinguals has focused on determining whether these children's perceived difficulties are a result of their acquisition of English or a disability (Kangas, 2021). A shortfall of this line of research is that it reinforces deficit ideologies about bilingual children by ignoring the systemic barriers that affect the academic outcomes of emergent bilinguals suspected to have a disability, such as a lack of bilingual education or limited teacher training on bilingual development (Kangas, 2021). Educational policies are most likely to focus on identifying disabilities on children who are emergent bilinguals and offer little to no guidance on how to best support these children's bilingualism and overall development once they are identified as disabled (Soto-Boykin et al., 2024).

Another major focus of research related to bilingualism and disabilities has been assessment. Current research supports that to identify whether emergent bilinguals have disabilities, it is best to assess them bilingually using various formal and informal measures, including dynamic assessments, multiple observations, parent report, and speech and language samples (Sánchez et al., 2013). Standardized assessments, even when available in languages other than English, are often limited because they are not normed on bilingual children, which can lead to misdiagnosis (Orellana et al. 2019). To avoid this, careful attention must be given to children's language and educational histories (Peña et al., 2016).

There is a dire gap in research examining effective educational models for children who are emergent bilinguals and labeled as disabled. However, because emergent bilingual children with disabilities have the right to the Least Restrictive Environment (LRE) under the *Individuals with Disabilities Education Act* (IDEA), dual language instruction should be one of their educational placement options (Kangas, 2021). Yet, these children are often excluded from both dual language settings because they have a disability despite research supporting that all emergent bilinguals can acquire two or more languages, regardless of their ability (Kangas, 2021). Parents are also discouraged from speaking

Research on Emergent Bilingual Children with Suspected or Identified Disabilities

- Children who are emergent bilinguals with suspected or identified disabilities can develop bilingually without confusion, regardless of the level of support they need.

- Children who are emergent bilinguals need to have delays or difficulties in both their languages to be considered as having a speech or language impairment.

- It is best practice to assess emergent bilingual children in their home language and English, as appropriate. If an evaluator does not speak the child's home language, it is best to identify a trained interpreter.

- There are not many valid bilingual assessments, so it is best to use multiple sources of data to make determinations of disability eligibility. These various sources of information include: dynamic assessments, multiple observations, caregiver input, and informal assessments.

- Emergent bilingual children with suspected or identified disabilities are more likely to be excluded from dual language and inclusive special education services due to misconceptions about bilingualism, lack of teacher training, limited bilingual special educators, and limited mention of emergent bilingual children in state policies, federal and state data collection, and learning standards.

to their children in their home language (Cioè-Peña, 2017, 2021). Based on what we currently know about bilingual language development in emergent bilinguals, as well as children with disabilities' civil right to a LRE, an inclusive education for emergnt bilingual children would include dual language programming.

In addition to their rights to a dual language education, regardless of disability, emergent bilingual children also have the right to special education and related personnel who can provide assessment and intervention in their home language and English (Peña, 2016; Soto-Boykin et al., 2023). It is important for special education and other related personnel in dual language programs, such as speech-language pathologists, to speak children's home language to provide bilingual therapy services. When the special educators or related personnel do not speak children's home language, they can work with the bilingual educator(s), caregivers, community members, paraprofessionals, and/or interpreters to embed the home language in the special education services. They should also have training on how to adequately assess and provide support to children who are emergent bilingual with suspected or identified disabilities.

There is a pressing need for research focusing on emergent bilingual children with suspected or identified disabilities, especially infants/toddlers, preschoolers, and children in the early grades. There is also a need for studies evaluating the effects of providing monolingual special educators and related personnel with training to assess and treat these children. Although research supports that these children can develop bilingually, and IDEA protects their civil right to an education that is in their Least Restrictive Environment, emergent bilinguals with disabilities are often excluded from inclusive dual language opportunities. Further research, data collection, and policies can ensure that these children have the educational opportunities to not only achieve their developmental goals, but to develop their bilingualism and communicate with their families and communities.

Federal and State-Level Policies

The Individuals with Education Act (IDEA, 2004) is the landmark federal law that protects the civil rights of children and youth with disabilities. IDEA mandates that infants and toddlers are to receive early intervention and that children and youth three to 21 years old receive a free and appropriate public education. IDEA also mandates that children with disabilities receive their special education services in the Least Restrictive Environment (LRE). Specific to emergent bilingual children who are English Learners, IDEA states that learning English needs to be ruled out as a source of potential

academic difficulty when determining eligibility for disability, that assessments administered to make eligibility requirements must be "bias free" and that parents need to be informed of their rights and procedural safeguards in the language they understand. According to the 44th Annual Report to Congress on the Implementation of IDEA (U.S. Department of Education, 2023), only 42% of preschoolers who are emergent bilinguals and considered English Learners receive the majority of their special education services in inclusive classrooms with their non-disabled peers. Only 62.9% of school-aged children and youth between five and 21 years old spend 80% or more of their day with non-disabled peers in inclusive classrooms. These proportions are similar to the inclusion rates of children and youth who are not considered to be English Learners. Unfortunately, the data reported to Congress or that which is publicly available is limited. To ensure that emergent bilinguals with disabilities are supported in ways that match research-supported practices, additional national data need to be collected, including disaggregated data by demographic variables including race and ethnicity, language status, income, and disability category; data on infants/toddlers between zero and three years old whose caregivers speak a language other than English at home; reporting the number of bilingual children who were assessed and the percentage of providers who are bilingual in each state; and the number of emergent bilinguals with disabilities who were enrolled in dual language programs.

Children who are emergent bilinguals doubly labeled as being English Learners and disabled are not only likely to be excluded from general education with non-disabled peers, but they are also excluded from dual language programming (Cioè-Peña, 2017, 2021). For example, in one public school district in Boston, children with disabilities make up 22% of the total student population, but they are starkly underrepresented in the district's seven dual language programs. These children make up between eight and 14% of the enrollment in the district's five Spanish-English dual language programs and virtually none in the Vietnamese-English or Hatian-Creole programs. **Across the 15 school districts that make up the Boston Public School system, more than 14,600 students are considered English Learners and have disabilities. Alarmingly, only 6% of these students are enrolled in dual language programs** (García Mathewson, 2023). This low enrollment may be associated with a low number of qualified bilingual special educators, fragmented special education and English learning services, bias and negative perceptions against children who are emergent bilinguals of color with disabilities, and few to no policies to explicitly serve these children in inclusive, dual language programs.

Practices for Supporting Emergent Bilinguals with Suspected or Identified Disabilities

- Provide coordinated, research-informed services that address children's overall development, including their developing bilingualism.

- Assess children bilingually using various formal and informal measures, such as dynamic assessment, observations, parent reports. Avoid relying on standardized assessments, even when assessments are available in languages other than English, as most assessments are not normed on bilingual children.

- Collaborate with trained paraprofessionals, interpreters, and community members to gather information about children's exposure to and proficiency in the home language.

- Provide emergent bilinguals with disabilities an inclusive, bilingual education with non-disabled peers, with appropriate supports.

What's more, there are limited state-level policies addressing emergent bilinguals suspected or labeled as disabled. Soto-Boykin and colleagues (2023b) found that most states lack policies on how to appropriately assess and provide intervention for children with disabilities who are also emergent bilinguals. Of the four states reviewed, only California had specific guidance on how to appropriately evaluate bilingual children suspected with disabilities, how to identify whether they were English Learners, and how to ensure that they were enrolled in bilingual programming that also supported their disabilities. It is likely that California's comprehensive policy guidance for assessing and treating emergent bilinguals suspected or identified as having a disability came from its passing of Education Code 56305 in 2016, which required State leaders and administrators to develop comprehensive guidance by 2019. California offers a promising example of how legislation can be leveraged to ensure that emergent bilinguals labeled as English Learners with disabilities receive appropriate services.

Research Gaps and Future Directions

Major gaps exist in our current understanding of how to best serve emergent bilinguals with suspected or identified disabilities in dual language early care and education. Future research directions should investigate barriers and facilitators for timely early intervention, how to provide these children with effective, coordinated services in dual language settings, how to best linguistically diversify the early intervention and special education workforce to reflect the children and families they serve, how to build capacity in educators and related providers to provide children with their special education services in inclusive, dual language settings, how to collect data that allows for intersectional analyses and the use of valid assessments, connections between children's socio-emotional well-being and enrollment in inclusive settings with bilingual instruction, and how to create policies that ensure emergent bilingual children with disabilities are not excluded from dual language programs.

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Conclusion

U.S. law states that all children have the right to equal educational opportunities, regardless of race, color, sex, or national origin.

Multiple Supreme Court rulings have also reinforced that preventing emergent bilinguals from an appropriate education is unconstitutional. In a nation where about a third of children from birth to age eight speak languages other than or in addition to English, an education system that is stubbornly and overwhelmingly English does not confer equal opportunity, nor an appropriate education. Indeed, the lack of instruction in the languages children speak at home, by default, results in disadvantages for the nation's millions of emergent bilinguals. All children, including children with disabilities, deserve the opportunity to learn in an environment that is validating of who they are and is supportive of both their bilingualism and their special education needs. In 2024, this is still not the case, especially for emergent bilingual children.

Much progress has been made in dual language education research over the last several decades. Research conclusively supports the fact that young children have the ability to learn as many languages as they receive high-quality exposure to, as well as the many benefits to bilingualism, including cognitive, academic, social, economic, and health. More recent work has shown promise for dual language education particularly in elementary school and beyond. Still, the field has lacked a cohesive framework for high-quality dual language education, particularly one that spans the early years and the early grades. The framework presented here spans seven domains of programmatic operations and child services across infant/toddler, preschool, and elementary school systems focused on English/Spanish dual language education. Our work is informed by an exhaustive research review of more than 170 peer-reviewed articles, interviews with dual language program administrators, and dozens of national policy, practice, and research experts in bilingual development and education. Furthermore, while there are established learnings from various adjacent literatures — such as neuroscience and early cognitive development — that inform current practices, continued research is needed to better understand how to effectively provide young emergent bilinguals in dual language immersion programs with comprehensive high-quality programming. Indeed, several gaps in research remain, most notably in operationalizing practices that support infant and toddler bilingual development, and in supporting emergent bilingual children with disabilities or delays.

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