



**Welcoming Bilingual Learners with Disabilities into
Dual Language Programs:**
*Research-informed implications for inclusive programs and
practice*

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April 25, 2022



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FOREWORD

This white paper, at its essence, is about collaboration. It highlights the work of a set of researchers, educators, and practitioners collaborating across borders and disciplines to share a multifaceted perspective of the education of bilingual students with disabilities. I use the phrase “across borders” both in its literal and figurative sense. My three coauthors, Fred Genesee, Cristina Sánchez López, and Theresa Young, crossed both national and disciplinary borders to produce this paper on bilingual learners with disabilities from collaborative, inclusive, and strengths-based perspectives. Behind the scenes, this white paper also represents another type of collaborative effort. It is the coming together of the members of the National Dual Language Forum (<https://www.cal.org/ndlf/>), a group of organizations and individuals with a shared set of goals to disseminate the most recent research-based information and practices to support dual language administrators, practitioners, and parents in creating quality dual language programs. I would especially like to thank Joel Gomez of the Center for Applied Linguistics (CAL), David Rogers of Dual Language Education of New Mexico (DLeNM), Rosa Molina of the Association of Two-Way and Dual Language Education (ATDLE), and Jan Gustafson-Correa of the California Association of Bilingual Education (CABE) for providing both early feedback and national forums to preview this paper for the field.

My own involvement in this white paper allowed me to see firsthand the process and dialogues that such an endeavor entailed. I recall many in-person as well as virtual conversations about the relationship between the research and the programmatic and instructional sections of the paper. It was also eye-opening for me to see the strong relationship between the *Guiding Principles for Dual Language Education* (Howard et al., 2018) and the critical elements of supportive learning environments for bilingual learners with disabilities in dual language programs outlined in this white paper.

This collaboration has also been impacted by its historical context—the sociological and physical constraints of a worldwide pandemic. We thank and honor all students, families, and educators, and especially those whose lives intersect with special education and dual language education. They inspire us through the courage, determination, perseverance, and love they continue to show each other during these unprecedented times.

Finally, I am extremely grateful to Theresa, Cristina, and Fred for allowing me to participate and to support their important collaboration.

John F. Hilliard
President and Founder
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EXECUTIVE SUMMARY

This white paper reviews evidence concerning the capacity of young learners with disabilities to acquire more than one language during the preschool and school years and the characteristics of dual language programs and classroom instruction and intervention practices that support their language development, learning, and well-being in school.

Part 1 explicates the mandate of this white paper, the socio-educational context for the white paper, and important terminology and concepts referred to throughout the remainder of the paper. In order to examine children's innate capacity for dual language learning, Part 2 begins by providing a review of research that has examined the language development of both typically developing children and children with disabilities during the preschool years, outside of educational settings. Research on children with developmental disorders, including developmental language disorders, autism, and Down syndrome, is reviewed. Collectively, this evidence indicates that like children without disabilities, children with disabilities can become bilingual. Indeed, children with disabilities can acquire proficiency in two languages (either simultaneously or successively) that is comparable to that of children with similar disabilities who are learning only one language, provided their early learning environments—home and preschool—provide sufficient and consistent exposure to both languages. Studies indicate further that individual differences in language learning outcomes of preschool-aged children can be attributable in large part to variation in their learning environments. In other words, there appears to be no natural constraint on children's ability to benefit from dual language exposure in nonacademic settings.

Evidence on the linguistic and academic development of children with developmental disabilities in dual language programs in both the United States and Canada is then reviewed. This evidence suggests that school-aged children with disabilities from both majority and minoritized groups in dual language programs can acquire the majority language of the community of schooling and in academic domains to the same level as comparable children with disabilities in monolingual programs. At the same time, students with disabilities in dual language programs can acquire more advanced levels of proficiency in the minority language, and thus demonstrate greater levels of bilingual competence while continuing to develop their bicultural identity, than comparable students with disabilities in monolingual programs.

Part 3 reviews research on critical characteristics of programs and instructional interventions that can enhance the learning outcomes of minoritized students with disabilities in dual language programs in the United States. Given the limited number of documented intervention studies that include minoritized students with disabilities in dual language programs to date, available evidence for these learners participating in a variety of program models and classroom settings is reviewed to collectively provide guidance. Throughout Part 3, reference is made to the *Guiding Principles for Dual Language Education* (Howard et al., 2018) to show the close relationship between specific guiding principles of dual language education and critical features of dual language programs and interventions that are revealed by research to be most effective for bilingual students with disabilities. More specifically, with respect to critical programmatic features, research recommends programs for bilingual students with disabilities that have strong sociocultural and linguistic components; a strengths-based developmental orientation to program planning and curriculum development with a focus on educating the whole child; integration of dual language and special education services by personnel; continuous and deep collaboration among bilingual and special educators, related service providers, administrators, and families; and inclusive educational policies that ensure equitable education of students with disabilities in dual language programs.

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With respect to classroom practice, research findings recommend instruction and interventions in dual language programs that recognize, integrate, and address both the dual language and special education strengths and needs of bilingual students with disabilities in all aspects of their education. The following specific characteristics of intervention are associated with enhanced educational outcomes for bilingual learners with disabilities in dual language programs: early intervention to support students with disabilities; ongoing involvement of parents to support dual language students with disabilities; systematic and explicit instruction that is meaningful and guided by students' individual strengths and needs; sustained, dynamic interventions that are modified according to changes in an individual student's progress; extensive opportunities for students to practice identified learning skills along with scaffolded support from peers and teachers; and learning environments that engage students and foster independence.

Recommendations that emerge from these reviews are offered in Part 4. These include the following:

1. Reduce barriers to the full participation of bilingual learners with disabilities in dual language programs.
2. Expand professional development opportunities for educators, school and district administrators, related service providers, and others who work with bilingual learners with disabilities.
3. Ensure that all school personnel, including administrators, develop a strengths-based system that supports bilingual learners with disabilities and ensures that these students' sociocultural and multilingual resources are an integral part of their instruction, intervention, and assessment.
4. Build and expand educators' competence in the delivery of interventions that bilingual learners with disabilities require to succeed in dual language programs.
5. Commit to incentivize and create regular, frequent, protected times in the school schedule for collaboration among bilingual and special education professionals, as well as related service providers, who are responsible for the education of bilingual learners with disabilities in dual language programs.

PART 1: INTRODUCTION

This white paper reviews evidence concerning the capacity of young learners to acquire more than one language during the preschool and school years. It also identifies critical characteristics of effective learning environments and educational supports that contribute to and enhance the success of minoritized language students with disabilities in dual language programs in the United States.

For the purposes of this document, the focus is bilingual children with identified disabilities for whom an accumulating body of research is available. These include bilingual children with diagnosed autism, developmental language disorders, Down syndrome, intellectual disabilities, and specific learning disabilities most often pertaining to reading disabilities.¹ Research to date has not always reported the level of disability experienced by these students; however, most studies have focused on children with mild and moderate levels of disability, although some include those who are more severely impacted by their disabilities.

For the purposes of this paper, dual language education (DLE) is defined as an enrichment program model where sections of curriculum are delivered to students in their home language and an additional language, with the goal of becoming bilingual, biliterate, and bicultural. DLE in the North American context encompasses three program types: one-way, two-way, and immersion. While all three share the same goals for the learner, the linguistic and cultural composition of the participants is the major distinguishing characteristic of each program type.

The intended audience for this white paper includes a variety of DLE stakeholders and decision-makers at district and school levels who design and implement dual language programs that include bilingual students with disabilities. Additionally, the white paper provides guidance for bilingual and special educators, related services providers (e.g., psychological services, speech-language pathologists, social work, and counseling services), as well as others who work with bilingual students with disabilities (e.g., paraprofessionals, instructional coaches).

As noted, participation in DLE programs in the United States (and Canada) can include students from the majority language group (i.e., students from homes where English is the native language of parents/caregivers and/or the main language of communication in the home) and students from minoritized language groups in the United States (e.g., students who speak primarily Spanish or Vietnamese at home). For children who grow up learning the majority language of the national community in which they live, bilingualism and DLE are a choice since knowledge of another language is not essential. However, for children who grow up in families where a minoritized language is the only or primary language of communication, the minority language continues to be of importance in their immediate and extended families and for their overall well-being. In other words, bilingualism is not optional because these learners must ultimately acquire both the home language and the majority language of the community. Furthermore, bilingualism can offer advantages in learning and life that can improve the quality of life for those with disabilities. DLE programs are an important vehicle for accomplishing all of this. Thus, identifying effective dual language learning environments and supports in school that develop these learners' bilingual and academic development is critical for their immediate and long-term well-being and success in and outside school throughout their lives. This is particularly true for minoritized language students with disabilities who often face barriers to participation in such programs and learning challenges in school.

1 See *Diagnostic and Statistical Manual of Mental Disorders*, 5th ed. (American Psychiatric Association, 2013) for diagnostic criteria; Paradis et al. (2021) for descriptions of typical characteristics; and the Individuals with Disabilities Education Improvement Act (2004) for identification categories used by school teams when determining eligibility for services.

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This white paper focuses on critical features of effective DLE programs and instruction for students from minoritized language groups with disabilities in order to ensure that they too enjoy full access to and the benefits of these programs. We refer to these learners throughout the white paper as *bilingual learners with disabilities*. For purposes of this paper, “bilingual learners” encompass both children who are in the process of acquiring English as an additional language and children who have already achieved considerable proficiency in more than one language. In the field of education, these learners are also referred to as English learners or dual language learners and are described as having special educational needs. There is little research on children who acquire more than two languages and even less on children who acquire both oral and signed languages. Consequently, we focus on learners who are acquiring or have acquired two oral languages. Caution must be used in extrapolating our conclusions from research to multilingual and multimodal language learners.

There is growing scientific evidence that bilingualism affords considerable individual benefits, benefits that can last throughout an individual’s life. Evidence of benefits has been documented in domains related to educational outcomes and aspirations, sociocultural development, personal well-being, cognition, and economic success (National Academies of Sciences, Engineering, and Medicine, 2017). Arguably, widespread individual bilingualism affords communities some considerable societal benefit in an era of increased globalization. There is also a substantial and growing body of evidence that well-implemented dual language forms of education are as effective as, and in some cases even more effective than, English-only education programs for bilingual learners from minoritized language groups in the United States. More specifically, meta-analyses of studies that have examined the outcomes of bilingual learners in dual language programs in the United States indicate that they attain the same and often higher levels of achievement than bilingual learners in English-only programs in their acquisition of English and in academic domains (e.g., Francis et al., 2006; Genesee et al., 2005; Goldenberg, 2008; Lindholm-Leary & Borsato, 2006; Rolstad et al., 2005; Slavin & Cheung, 2005). At the same time, bilingual learners in dual language programs acquire higher levels of bilingual competence than their peers in English-only programs and, thus, are more likely to reap the benefits of bilingualism noted above.

However, parents, educators, physicians, pediatricians, psychologists, speech-language pathologists, and administrators often express concerns and downright skepticism about the inclusion of young learners from minoritized language groups in DLE programs on the assumption that exposure to more than one language outside and in school will jeopardize their acquisition of English and, in turn, their academic success and integration into mainstream society. Such concerns are expressed most strongly in the case of bilingual learners with developmental disorders² or other learning challenges that are often associated with underachievement in school. As a result, these learners often face restricted opportunities to participate in dual language programs that would support their bilingual development (de Valenzuela et al., 2016; Kubota & Bale, 2020). All too often, these barriers reflect attitudes, beliefs, and prejudices that are unfounded in the research (Genesee, 2015; Kay-Raining Bird, Genesee, & Verhoeven, 2016). As a result, these learners are deprived of the many potential benefits of bilingualism.

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2 Developmental disorders are a group of conditions that begin early in development and can involve physical, learning, language, and behavioral functioning, with effects that persist throughout one’s lifetime (see also Paradis et al., 2021).

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Thus, on the one hand, DLE provides a realistic and proven approach to academic success and bilingual competence for students in general and for students with disabilities and, on the other hand, many bilingual learners, especially those with a disability, are not afforded full access to these programs. Barriers to the inclusion of bilingual learners with disabilities in the alternative forms of DLE that are available in the United States raise important issues that are the focus of this paper. Accordingly, this white paper has five main purposes:

1. To examine research concerning young learners' capacity to acquire more than one language, as evidenced by findings from research on preschool-aged learners (Part 2).
2. To review research on the outcomes of bilingual learners with developmental disabilities in dual language programs (Part 2).
3. To identify and discuss characteristics of high-quality dual language programs that support the bilingual, academic, and personal development of bilingual learners with developmental disabilities (Part 3).
4. To review the characteristics of classroom instruction and interventions that can support the success of bilingual learners with developmental disabilities in dual language programs (Part 3).
5. To provide research-informed recommendations for programs and practices that best serve bilingual learners with disabilities as we welcome them into inclusive dual language programs (Part 4).



PART 2: DUAL LANGUAGE ACQUISITION FROM BIRTH TO AGE 5: PRESCHOOL CHILDREN'S CAPACITY FOR DUAL LANGUAGE LEARNING

There has been an explosion of research on dual language acquisition from birth to age 5, including research on both typically developing (TD) children and children with developmental disorders. This research is international in scope and encompasses both sequential bilinguals, that is, children who begin acquisition of the second language after 3 years of age, and simultaneous bilinguals, those children who have access to two or more languages before the age of 3. Diverse groups of bilingual learners have participated in these studies, including children learning different language combinations, children learning both minority and majority languages, and children growing up in different national and cultural contexts (see Paradis et al., 2021, for a more detailed discussion of this research). Multiple aspects of language acquisition have been examined, including speech perception; phonological, lexical, and morphosyntactic development; and communicative competence. The findings from this research do not directly address educational issues concerning bilingual learners with learning challenges, but they do address issues of their capacity for learning more than one language during this critical developmental stage.

Evidence-based insights about preschool-aged learners' capacity for the acquisition of two languages is important for educators because it can shape their attitudes, policies, and practices with respect to access to and implementation of dual language education (DLE) options for learners with disabilities. Without findings from rigorous research, educational policies, decisions, and classroom practices risk being based on overly simplistic notions of early dual language acquisition (see Genesee, 2015, for a discussion of myths concerning early bilingual acquisition). More specifically, beliefs that DLE is not suitable for bilingual learners with developmental disabilities could restrict their access to dual language programs on the assumption that such programs are too challenging and will limit their development of competence in English and in academic domains.

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Researchers who investigate dual language acquisition from birth to 5 years of age often compare the language development of young bilinguals to that of monolingual children. On the one hand, such comparisons may be considered inappropriate because they risk attributing differences between bilingual and monolingual learners to deficits in children's capacity to acquire more than one language rather than simply to different pathways to language competence. Increasingly, researchers agree that the linguistic competencies of bilinguals should be examined and understood in their own right (Cheatham et al., 2012; Genesee, 2022; Pierce et al., 2017). On the other hand, comparisons between bilingual and monolingual learners have real-world consequences insofar as educators, medical professionals, clinicians, and parents often compare young bilinguals to monolinguals and make important decisions about how to care for these children based on such comparisons. Evidence that there are similarities between early bilingual and monolingual acquisition would indicate that the former is not cause for concern, and evidence of differences that are linked to the learning environment would emphasize the importance of environmental and experiential factors and not child-internal factors in the development of bilingual competence.

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The following review begins with research on TD preschool-aged children and then considers research carried out with preschool-aged children with developmental disorders. Space limitations do not allow a detailed summary of all the relevant research and, thus, only exemplary studies are discussed; see Paradis et al. (2021) and the report of the expert panel of the National Academies of Sciences, Engineering and Medicine (2017) for detailed recent reviews of this research. Research that has examined the effectiveness of dual language forms of education in the United States and Canada for students with developmental disorders is then reviewed, followed by implications of these bodies of research for educational policy.

Typically Developing Bilingual Learners

Similarities with Monolingual Learners

Evidence of similarities in bilingual and monolingual acquisition can be found in phonological, lexical, and morphosyntactic domains of language learning. For example, infants begin life with the ability to discriminate many consonant and vowel sounds found in the world's languages regardless of their experience with specific languages (e.g., Werker & Tees, 1984). However, experience does matter. At 6 to 8 months of age, monolingual

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infants have difficulty perceiving phonological contrasts that are not phonemic in the language they are learning but continue to perceive vowel contrasts that are specific to the language they are learning (Kuhl et al., 1992) and consonant contrasts somewhat later—by 10 to 12 months of age (Werker & Tees, 1984). Bilingual infants go through a similar fine-tuning in speech perception for each language at roughly the same age (e.g., Albareda-Castellot et al., 2011).

Another important milestone in language acquisition is the ability to extract words from continuous speech. This is difficult since there are no clear acoustic cues that signal the beginnings and endings of words when they occur in continuous speech. This ability requires knowledge of and the ability to recognize phonotactic constraints (sound sequences) that characterize the language(s) being learned. In a study of 6- and 8-month-old bilingual infants learning Spanish and Catalan and same-age monolingual infants learning Spanish or Catalan only, it was found that both the bilingual and monolingual infants were able to segment new words that conformed to the phonotactic constraints of their respective languages by 6 months of age, as indicated by their preference to listen to words that conformed to the constraints of the target languages over words that violated those constraints (Bosch et al., 2013).

Additional evidence of similarity comes from studies of the grammatical development of bilingual children which indicate that, for the most part, they acquire language-specific grammatical patterns in each language, and these are the same patterns exhibited by monolinguals (see de Houwer, 2009, and Paradis et al., 2021, for detailed reviews). For example, in an early study, Paradis and Genesee (1996) found that young French-English bilinguals in Montreal exhibited the same patterns of usage with respect to finite verbs, subject pronouns, and verbal negation in French and English as same-age monolingual French and English learners; English and French differ with respect to these grammatical features. Other researchers have reported similar findings for other language groups; for example, see Meisel (2011) for findings of research on the morphosyntactic development of French-German bilinguals in Europe.

Taken together, these findings indicate that bilinguals do not need as much exposure to each language as monolinguals in order to achieve the same developmental milestones in some areas of language acquisition at approximately the same ages as TD monolingual children (see also Hoff et al., 2012). However, sufficient exposure to each language is required in the learning environment. In this regard, Thordardottir (2011), for example, found that preschool-aged dual language learners were able to achieve parity on standardized language tests of vocabulary

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and grammar with monolinguals provided they had a minimum of 40% exposure to each language. Evidence of similarities in bilingual and monolingual acquisition in these important milestones of language acquisition imply that the same underlying neurocognitive processes support bilingual and monolingual development.

Differences from Monolingual Learners

Notwithstanding these similarities, it has been found that young bilingual learners differ from monolinguals in certain respects. This finding has been documented in a number of domains of language acquisition, and these differences have been attributed to multiple factors, most of which do not implicate children's capacity for dual language learning but rather characteristics of the learning environment. More specifically, amount of exposure has been shown to be a significant correlate of many aspects of language development in bilingual children, with more exposure associated with greater proficiency and with competence that is more likely to resemble that of monolinguals. This pattern has been shown for phonological production (e.g., Gildersleeve-Neumann et al., 2008; Kehoe & Havy, 2019), expressive vocabulary (e.g., Marchman et al., 2004; Ribot et al., 2018), lexical processing (Hurtado et al., 2014), and overall proficiency (e.g., Hoff et al., 2012; Thordardottir, 2014), among others.

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In a related vein, it is widely reported that bilingual children score lower than monolingual learners of the same languages on tests of vocabulary when each language is examined separately (e.g., Hoff et al., 2012; Poulin-Dubois et al., 2013). These differences have been attributed to the distributed nature of bilingual learners' input such that



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lower vocabulary scores in one or both languages of bilingual learners are associated with less exposure than that experienced by monolingual learners. However, it has also been shown that bilingual learners usually perform as well as, or even better than, monolinguals when their proficiency in both languages is considered together, and monolingual-like patterns are more likely in bilinguals' dominant language (e.g., Kay-Raining Bird et al., 2016; Paradis & Govindarajan, 2018). These findings indicate that it is important to consider individual bilingual children's proficiency in both languages as well as their history of exposure to both languages in order to have a true picture of their language abilities. These results also indicate that differences in bilingual versus monolingual children that may be interpreted as deficiencies are often better viewed as a reflection of differences in the environments in which they are acquiring each language.

It is not simply amount of exposure, but also the quality of exposure that can influence the language development of bilingual learners. For instance, Paradis and Navarro (2003) found that a Spanish-English bilingual child who used more overt subjects in Spanish than is typical of monolingual Spanish children actually heard more overt subjects in the Spanish used by her mother, a second language (L2) speaker of Spanish. Fennell and Byers-Heinlein (2014) found that simultaneous French-English bilinguals were able to learn novel minimal word pairs (e.g., *not – net*) at 17 months of age, the same age as monolingual children, if the test stimuli were produced by bilinguals. However, they were unable to succeed at this task until 20 months of age if the stimuli were spoken by monolinguals, suggesting that performance on this demanding task depends on whether the conditions of language testing match the language environment in which bilingual children are learning their languages.

In yet other cases, differences can be linked to subtle linguistic characteristics of the two languages. With respect to phonology, for example, Sebastián-Gallés and Bosch (2002) found that infants exposed to both Spanish and Catalan, languages that are very similar phonologically, could discriminate a contrast that exists in Catalan, but not Spanish, only at 12 months of age, whereas monolingual infants exposed only to Catalan were able to detect the contrast at 8 months. The authors argued that the bilingual infants treated the contrasting phonemes in Catalan as a single category because they belonged to a single category in Spanish and, thus, they needed more time to disentangle the phonemic properties of each language. Cross-linguistic effects have also been attested in the development of grammar; for example, Yip and Matthews (2007) found that Cantonese-English children who were dominant in Chinese incorrectly formed relative clauses in English using the word order of Cantonese.

In sum, extant evidence reveals that newborns, infants, and toddlers are neurocognitively prepared to learn more than one language without difficulty and without jeopardizing their development of either language, provided that they have sufficient exposure to both languages and that their exposure is continuous over time and of high quality (see de Houwer, 2009, and Paradis et al., 2021, for more details). The expert panel commissioned by the National Academies of Sciences, Engineering, and Medicine (2017) reached a similar conclusion:

Children learning two languages from birth or within the first 3 years of life ... exhibit many similarities with monolingual children in their developmental trajectories and their skills in each language. At the same time, those trajectories or outcomes can differ between the two groups. DLLs [dual language learners] may take longer to learn subtle aspects of language that differ between the two languages, they may use alternative learning strategies to manage input from the two languages, and their levels of proficiency may reflect variations in language input and its quality. Even though these differences sometimes result in DLLs sounding different from monolingual children of the same age, these differences are in most cases normal and typical for children learning two languages at the same time, and not an indication of disorder, impairment, or disability. (p. 147)

Bilingual Learners with Developmental Disorders

There is also a growing body of evidence concerning dual language learning in young children with developmental disorders. Most of this work has focused on children with developmental language disorders (DLD), autism, and Down syndrome (DS) (for reviews, see Cheatham et al., 2012; Drysdale et al., 2015; Kay-Raining Bird et al., 2016; Marinova-Todd & Mirenda, 2016; Paradis & Govindarajan, 2018). Thus, our review focuses on children with these disorders. Findings from this body of research are particularly important because they examine the capacity of young children with disorders that impinge on their ability to acquire language, either as a primary effect of the disorder, as in the case of children with DLD, or as a secondary effect, as in the case of children with autism or DS. Evidence that such learners are not jeopardized in their language development in comparison to monolingual children with similar disorders would argue that young learners' capacity for learning more than one language, noted above, is so robust that it is not diminished by the additional challenges posed by these disorders.

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The limited but growing research to date on bilingual learners with developmental disorders includes considerable variability with respect to sample sizes, diagnostic criteria, outcome measures, and participants' background characteristics (languages spoken, age of first exposure, length of exposure to each language, and others). Nevertheless, common trends in the results of these diverse studies lend validity to the generalizability and implications of their individual findings. In fact, some important general insights emerge from these studies. We summarize the results for each group of learners separately in order to reveal the consistency in findings among these studies and to provide portraits of learners with these specific disorders.

Bilingual Children with Developmental Language Disorders

Studies of bilingual learners with DLD are the most frequent in this body of research (for recent reviews, see Kay-Raining Bird et al., 2016, and Paradis et al., 2021). Taken together, findings from these studies indicate that dual language learners with DLD who begin to acquire both languages from birth or within the first 3 years of life can attain the same level of competence in a variety of linguistic domains as monolinguals with DLD, at least when tested in their dominant language (Gutiérrez-Clellen et al., 2008; Morgan et al., 2013; Paradis et al., 2000, 2003). However, sequential bilinguals with DLD—children who begin acquisition of an L2 after approximately 3 years of age—have been found to score lower than monolinguals with DLD on some measures of language ability, including gender marking, utterance length, grammar, and lexical diversity and use (Cleave et al., 2010; Iluz-Cohen & Walters, 2012; Orgassa & Weerman, 2008; Rezzonico et al., 2015; Verhoeven et al., 2012). In contrast, sequential bilinguals with DLD have been found to exhibit performance equivalent to that of monolingual children with DLD on measures of narrative ability (e.g., Cleave et al., 2010; Iluz-Cohen & Walters, 2012; Rezzonico et al., 2015; Tsimpli et al., 2016). It has been argued that performance on the latter measures is a cognitively-based ability and, thus, is less dependent on L2 proficiency and less susceptible to the effects of language impairment per se (e.g., Pearson, 2002; Tsimpli et al., 2016). The lags noted above are consistent with findings for TD sequential bilingual learners that indicate that a protracted period of exposure to the L2 is needed before they achieve the same level of competence as monolingual children (e.g., Cummins, 2008; see also Chapter 6, National Academies of Sciences, Engineering, and Medicine, 2017, for a synthesis of studies that have examined time to proficiency in English in bilingual learners in the United States). Paradis and Govindarajan (2018) also noted in their review that bilingual children with DLD have similar linguistic profiles as monolinguals with DLD and argued that clinical markers of DLD for a particular language can be used whether the child is bilingual or monolingual.

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Finally, contrary to fears that maintenance of the first language (L1) of language-minoritized children will jeopardize their acquisition of the majority language, there is evidence that maintenance of the L1 facilitates L2 development even in children with DLD (Cheatham et al., 2012; Paradis & Govindarajan, 2018). Cross-linguistic facilitation is less evident in the case of sequential bilinguals in comparison to simultaneous bilinguals and in dual language learners acquiring typologically dissimilar languages in comparison to dual language learners acquiring similar languages.

More specifically, Blom and Paradis (2013) found evidence of positive cross-linguistic transfer of morphological knowledge that facilitated the acquisition of English as an L2 in 5- and 6-year-old sequential bilinguals with DLD with a variety of L1 backgrounds. When they divided the participants into groups based on whether their L1s were tense-marking languages (i.e., similar to English) or not (dissimilar to English), they found the most positive transfer among the subgroup whose L1s were similar to English.

L1 knowledge may positively support L2 acquisition even when the two languages of bilingual children with DLD are linguistically dissimilar. Specifically, Verhoeven et al. (2012) found that a composite Turkish-L1 language score positively predicted Dutch-L2 language abilities in sequential bilinguals with DLD. Evidence of positive linguistic transfer among dual language learners with DLD is important from an educational point of view because instructional supports and interventions for dual language students should take advantage of transfer to enhance the effectiveness of intervention for bilingual students with a disability, as discussed more later in this paper.

Bilingual Children with Autism

Research on bilingual acquisition in young children with autism is much more limited. Nevertheless, extant research has found that children with autism can become bilingual (for reviews, see Kay-Raining Bird et al., 2016, and

. . . extant research has found that children with autism can become bilingual . . . without jeopardizing their development in either language.

Paradis & Govindarajan, 2018) without jeopardizing their development in either language. Specifically, comparisons between bilingual and monolingual children with autism have consistently found no significant differences between these groups with respect to important aspects of language development (e.g., age of first words and word combinations); expressive, receptive, and total vocabulary; morphosyntax;

and pragmatics (Hambly & Fombonne, 2012; Petersen et al., 2012; Reetzke et al., 2015; Valicenti-McDermott et al., 2013). The participants in these studies ranged in age from 2 to 6 and spoke typologically similar (Spanish-English) as well as dissimilar (Chinese-English) language combinations, lending support to the generalizability of these findings.

Bilingual Children with Down Syndrome

In addition to several early case studies (Papagno & Vallar, 1995; Vallar & Papagno, 1993; Woll & Grove, 1996), several studies of bilingual learners with DS have been published more recently (Cleave et al., 2014; Feltmate & Kay-Raining Bird, 2008; Kay-Raining Bird et al., 2016; Martin et al., 2021; Trudeau et al., 2011). These recent studies were carried out with English-French bilinguals in Canada and had overlapping samples of children. In these studies, bilinguals with DS were compared to monolinguals with DS and, in some cases, to TD monolinguals and bilinguals. Participants were matched on nonverbal mental age, standard practice in studies of children with DS because of associated cognitive impairments. Consequently, individuals with DS were considerably older than their TD controls in these studies. Sample sizes were often small due to difficulty recruiting bilinguals with DS (Kay-Raining Bird et al., 2005). The ages of bilinguals with DS ranged from 4 to 19 years.

Research-Informed Implications for Inclusive Programs and Practice

Extant evidence, albeit limited at present, suggests that simultaneous and sequential bilinguals with DS are not disadvantaged by bilingual exposure. More specifically, it has been found consistently that they perform comparably to their monolingual peers with DS, at least in the majority language of the community in which they live. It has also been found that the amount of input is correlated with growth in the weaker language of bilingual children with DS, highlighting the importance of environmental factors in the language development of bilingual learners with developmental disorders. These findings argue that extending linguistic exposure, especially in the less proficient language, is recommended for bilingual children with DS in order to enhance their bilingual development.

Finally, there is evidence of similar profiles of language strengths and weaknesses in simultaneous bilinguals and monolinguals with DS. These findings argue that the linguistic vulnerabilities of bilingual learners with DS and, thus, the areas of development that merit additional support, are likely the same whether the child is monolingual or bilingual. This has important implications for professionals working with bilingual children with DS in dual language programs, suggesting that bilingual and monolingual students with DS require extended support targeting the same aspects of language development; of course, individual profiles of strengths and needs must always be determined when planning to individualize interventions for bilingual learners with a developmental disorder.

Students with Disabilities in Dual Language Programs

Research on students in dual language programs who are likely to face challenges in school, especially those with a diagnosis of a disability, is limited at present. This is likely a reflection of the barriers, noted earlier, that these children face when it comes to participation in dual language programs. Parents of children with developmental disorders are often counseled to enroll their child in a monolingual program or, if they are enrolled in a dual language program, they are often counseled to withdraw their child from the program if they show signs of difficulty. Thus, identifying sufficiently large samples of students with a disability in a single school or school district is challenging.



Welcoming Bilingual Learners with Disabilities into Dual Language Programs

To broaden the research base for examining the suitability of DLE for bilingual learners with disabilities, reviews of studies from both the United States and Canada have been included. The U.S. studies pertain to bilingual learners in developmental, two-way, and one-way dual language programs (see Genesee & Lindholm-Leary, 2021, for more details), and the Canadian studies pertain to English-L1 students enrolled in early total French immersion programs, a form of DLE³ (see Dicks & Genesee, 2016, for more details). Inclusion of studies from both countries provides evidence of the generalizability of findings for students with learning challenges in dual language programs in communities with different sociocultural characteristics and, in particular, for students from both minoritized (the United States) and majority language groups (Canada). Research on students with disabilities in dual language programs has evaluated the effectiveness of the programs by examining their learning outcomes in comparison to similar students without disabilities in the same programs as well as to similar students with disabilities in monolingual programs and state or district norms.

U.S. Studies

In the United States, Howard (2003) reported that although bilingual learners with special education needs lagged in academic achievement compared with peers without a learning disability, as would be expected given their disability status, the difference diminished from Grade 3 to Grade 5. In other words, participation in a dual language program did not jeopardize the academic progress of the bilingual learners with special education needs; to the contrary, it narrowed the achievement gap (see Lindholm-Leary & Howard, 2008, for a review). In a similar vein, Lindholm-Leary (2005) reported that bilingual learners with learning disabilities related to reading, also in two-way dual language programs, scored relatively low on tests of reading in English compared with statewide norms, but there was no significant difference between these students and the California state average for students with disabilities in Grades 4 to 8, or between Spanish-L1 students with disabilities and English-L1 students with disabilities. These findings are noteworthy because bilingual learners with learning disabilities in the dual language programs had significantly less exposure to English in school than the students who comprised the state norming group or the population of English-L1 students with disabilities.

Myers (2009) examined the performance of Grade 3 to Grade 5 English-L1 and Spanish-L1 students in Spanish-English two-way dual language programs in the United States who had been identified as having learning disabilities, developmental delays, emotional disturbance, and/or health issues. The students were evaluated using criterion- and norm-referenced tests of reading, listening comprehension, writing, spelling, mathematics, science, and social science in English. Myers found no significant differences between the students with these identified disabilities in dual language programs and students with comparable disabilities in monolingual English programs at any grade level.

Finally, Thomas and Collier (2014) examined the achievement of bilingual learners (Spanish-L1) in Grades 3 to 8 who were receiving “special education services” in two-way dual language programs in North Carolina. The majority (90%) of these students were identified with specific learning disabilities or a language disability. Using criterion-referenced and end-of-grade state assessments, they found that the students with disabilities in the dual language programs outperformed their peers with comparable disabilities in the monolingual English program in reading and math.

Canadian Studies

Evaluations of dual language programs for majority language students in Canada (referred to as French immersion) have reported findings that are consistent with results from U.S. studies. In early studies, Bruck (1978, 1982) examined the performance of Grade 3 English-L1 students in early French immersion programs who were identified

3 For example, in early total French immersion programs, 100% of the curriculum is taught in students' L2 (French) during K and Grades 1, 2, and sometimes 3. English is introduced in Grade 3 or 4 for about 1 hour a day and gradually increased until Grade 6, when approximately half the day is spent in the home language (English) and half in the L2.

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as “language disabled” or TD. The outcomes of these students were compared to one another and to those of TD students and students with language disabilities in monolingual English programs. Similar to the U.S. studies, both groups with language disabilities (those in immersion and those in monolingual programs) scored lower than their TD peers in the same program, as expected. Of particular note, however, the immersion students with language disabilities scored at the same level as students with similar disabilities in the monolingual program on English language and academic achievement tests and significantly higher on the French-L2 language tests than the nonimmersion students with comparable disabilities who were receiving conventional French language instruction. In other words, participation in the immersion program did not pose challenges for the students with language disabilities that were greater than those experienced by similar students in a monolingual program.

Kay-Raining Bird et al. (2021) examined the academic outcomes of English-L1 students with disabilities (identified as having special education needs with respect to reading, writing, and mathematics) who were attending early French immersion programs in a large school district in Ontario that encouraged participation of children with disabilities. Students who had undergone assessment for the development of an individualized education plan (IEP), indicating that they had special needs but were not formally diagnosed, were also included. In fact, they comprised the majority of the immersion group with a disability. The achievement of these students was examined using results from provincially-mandated tests in reading, writing, and mathematics administered in English in Grade 3 to all students in the province. Kay-Raining Bird and her colleagues found that more immersion students with a disability met or exceeded provincial expectations than nonimmersion students with a disability. In fact, most immersion students with a disability met expectations in reading (71%) and writing (65%) but fewer in mathematics (46%). In addition, direct testing in English of a small subsample of the immersion students with disabilities found that only a few scored below the norm on standardized language and reading tests. Direct testing in French of the same students indicated that they were acquiring competence in French, albeit below their grade level, as one might expect given their disability status. These results must be interpreted with caution, however, in light of the fact that selection biases related to disability, severity of need, and unequal distribution of different disabilities in the two groups may favor the immersion students over the nonimmersion students. These are common issues in research on special populations of students. Nevertheless, with this caveat in mind, these results, along with results from similar studies in the United States, indicate that students with disabilities can succeed in dual language programs.

Finally, studies on students in immersion programs in Canada who were at risk for reading disability reinforce these findings and further challenge the notion that DLE is suitable only for TD students. Kruk and Reynolds (2012) examined the development of phonological awareness, decoding, and reading comprehension in English-speaking students in Grade 1 to Grade 3 in an early French immersion program in Manitoba. The program provided 100% instruction in French in kindergarten and 75% to 80% in Grade 3. Students who were considered at risk for reading disability as well as TD readers in immersion and in a monolingual program in the same district were examined in detail to investigate if there were differential effects of immersion on the at-risk and TD students’ overall outcomes or the rate of growth in reading-related abilities. They found that the at-risk readers in immersion demonstrated higher levels of phonological awareness, more rapid growth, and higher overall performance on decoding tasks than their peers in the monolingual English program who were also struggling to learn to read. Of particular interest, the at-risk readers in immersion experienced higher levels of performance and faster growth in reading comprehension by Grade 3 than the at-risk nonimmersion group.

In a related study, Wise and her colleagues (Wise & Chen, 2010; Wise et al., 2016) found that Grade 1 immersion students who were at risk for reading difficulty made significant gains in word reading in French-L2 up to 2 years after receiving training in phonological awareness and letter-sound knowledge in English, their L1. Students in immersion programs who are at risk for specific learning disabilities involving reading often have to transfer to a monolingual English program to get the support they need because the school offers support services only

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in the English program. Thus, contrary to the expectation of some educators and parents, Wise and colleagues' results indicate that providing support in English-L1 for struggling readers in immersion can help remediate their difficulties and, thus, obviate the need for them to transfer to a monolingual program in order to get the additional support they require.

Summary and Educational Implications

Current research findings indicate that preschool-aged children have the capacity to become bilingual, provided their learning environments afford sufficient quantity and quality of exposure to each language. Of note, exposure to and acquisition of two languages during the preschool years does not jeopardize the language development of dual language learners with developmental disorders, including DLD, autism, and DS, in comparison to that of monolingual children with similar developmental disorders. Evidence indicates further that the disabilities of children with DLD and autism are exhibited in both languages and in the same ways as in monolingual children with these developmental disorders who are acquiring the same languages (Paradis et al., 2021).

School-aged children with disabilities are not at greater risk of difficulty in dual language programs than similar students in monolingual programs. This has been documented for both minoritized bilingual learners in the United States and English-L1 students in immersion programs in Canada, attesting to the generalizability of these findings.

. . . exposure to and acquisition of two languages during the preschool years does not jeopardize the language development of dual language learners with developmental disorders, including DLD, autism, and DS, in comparison to that of monolingual children with similar developmental disorders.

At the same time, students in dual language programs attain significantly higher levels of bilingual proficiency than similar students in monolingual programs, indicating that, generally speaking, alternative forms of DLE provide effective learning environments for promoting the bilingual and academic development of young learners. Part 3 identifies specific features of dual language programs and classroom instruction/intervention that are critical for their success.



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Taken together, evidence from research on preschool-aged learners with developmental disorders and school-aged children with disabilities who participate in dual language programs has a number of important educational implications (Box 1).



BOX 1. EDUCATIONAL IMPLICATIONS OF RESEARCH ON DUAL LANGUAGE LEARNERS WITH DISABILITIES

1. Evidence from preschool-aged children with developmental language disorders, autism, and Down syndrome indicates that they can achieve the same levels of language competence and exhibit the same profiles of strengths and weaknesses as monolingual children with the same disabilities. Thus, bilingualism does not exacerbate bilingual learners' disabilities and does not prevent them from becoming bilingual.
2. The extent to which preschool bilingual children acquire proficiency in both languages is associated with the quality of the learning environment, including both the amount of exposure and the nature of the linguistic input.
3. There is no scientific evidence to date to justify educational policies or practices that limit the access of bilingual learners with disabilities to dual language education on the grounds that it exceeds their neurocognitive capacity.
4. Students in dual language programs attain significantly higher levels of bilingual proficiency than similar students in monolingual programs. In particular, students who speak a minoritized L1 are able to attain the same, or even higher, level of proficiency in the majority language and in academic domains as similar students with similar disabilities in monolingual programs.

PART 3: INCLUSIVE LEARNING ENVIRONMENTS FOR BILINGUAL LEARNERS WITH DISABILITIES IN DUAL LANGUAGE PROGRAMS

The focus of Part 3 is the education of bilingual learners with identified disabilities who speak a language other than English at home and participate in dual language education (DLE) programs.⁴ Theory and research-informed best practices from the fields of bilingual education, special education, and bilingual special education inform Part 3. As

In order to incorporate a strengths-based approach in both the programmatic and instructional environments, districts and schools implementing dual language programs must draw on the varied linguistic and cultural resources of bilingual students, their families, and their communities during program design and implementation . . .

evidenced in Part 2, research findings support the inclusion of bilingual learners with developmental disabilities in dual language programs. Because mere participation in a dual language program is not sufficient to ensure success for students with disabilities, this section examines features of educational programs and practices drawn from a review of research in a variety of educational settings that are essential for the success and well-being of bilingual learners with disabilities in dual language programs. These features provide guidance to stakeholders and decision-makers at district and school levels for the design and implementation of dual language programs that are suitable and effective

for bilingual students with disabilities. When these features are integrated into a dual language program, they can also provide the necessary infrastructure for bilingual and special educators and related service providers to work effectively with bilingual learners with disabilities.

Throughout Part 3, *Guiding Principles for Dual Language Education* (GPDLE) (Howard et al., 2018) are used to connect and ground the recommendations for optimizing learning environments for bilingual learners with disabilities in dual language programs in established research-based best practices. We refer to particular strands (Program Structure, Curriculum, Instruction, Assessment and Accountability, Staff Quality and Professional Development, Family and Community, and Support and Resources) when specifically relevant. Guiding principles and related key points are noted graphically throughout the text for easy reference.

Critical Features of Dual Language Programs for the Education of Bilingual Learners with Disabilities

Effective learning environments for bilingual learners identified with disabilities in dual language programs are multilayered and begin with programwide characteristics that are foundational to equitable inclusion of all children, including bilingual learners with disabilities. While the features are discussed separately in this section, they are interrelated and interacting and, thus, contribute to the multilayered nature of effective DLE for bilingual learners with disabilities.

A Strengths-Based Developmental Orientation

Essential to equitable and optimal educational experiences for bilingual learners with identified disabilities in dual language programs is a strengths-based view of students, their families, and their communities (Paris & Alim, 2017;

4 The Individuals with Disabilities Education Improvement Act of 2004 (IDEA) defines 13 different disabilities that qualify a child for special education and related services (see Section 300.8, Child with a Disability, <https://sites.ed.gov/idea/regs/b/a/300.8>).

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Sánchez-López & Young, 2018). In order to incorporate a strengths-based approach in both the programmatic and instructional environments, districts and schools implementing dual language programs must draw on the varied linguistic and cultural resources of bilingual students, their families, and their communities during program design and implementation (see GPDLE Strand 6, Principle 3, Key Point B).

Historically, school systems have invested a great deal of time and resources to identify challenges and difficulties that students with disabilities face, with the goal of providing individualized support in a timely manner. It is important, however, that school teams do not focus only on what students do not know and cannot do, as this contributes to deficit views of students' learning potential. Deficit views of students overlook the negative impact that inappropriate district policies, educator attitudes, and instructional approaches, among other elements of the learning environment, can have on students' learning experience and their success. While all students experience individual challenges, they also bring unique strengths, abilities, interests, and experiences that can be drawn upon to promote learning.

Paying close attention to what students can do, as well as to their range of linguistic, cultural, interpersonal, and academic resources and abilities, is central to effective programming for bilingual learners with disabilities. Developing and using an inventory of students' strengths—personal, academic, life experiences, interests, and abilities—is essential for providing effective instruction, support, and intervention. Giving attention to students' strengths changes the way school teams perceive and talk about and with students, their families, and other professionals. Taking a strengths-based orientation yields more constructive and student-centered collaborative conversations when supporting individual bilingual students with disabilities.

Educating the Whole Child

Once bilingual learners with disabilities are identified, the focus of their program often shifts away from supporting their bilingualism to prioritizing their disability. This approach is based on the premise that the source of bilingual learners' challenges is *either* their special educational needs *or* their bilingualism. This sort of either/or thinking is problematic in that it sets up individualized education plan (IEP) teams to choose between these two options. This inevitably forces the team to decide which aspects of students' strengths and needs will be the focus of their education. Such a binary categorization fails to recognize that bilingualism is central to the learning experiences of bilingual students, whether they have a disability or not. In fact, decisions by IEP teams often result in special education services taking precedence over language instruction, erroneously implying that students' disability overrides concerns for the development of their bilingualism and bicultural identities. Moreover, and as a result, bilingual

GPDLE Strand 6: **FAMILY AND** **COMMUNITY (p. 119)**

PRINCIPLE 3

The program views and involves families and community members as strategic partners.

KEY POINT B

The program capitalizes on the varied linguistic and cultural resources of the community.



While all students experience individual challenges, they also bring unique strengths, abilities, interests, and experiences that can be drawn upon to promote learning.

. . . reduced exposure to both languages and enforced participation in monolingual programs is not necessary or useful and, . . . deprives bilingual learners with disabilities of the potential advantages of full bilingualism.

GPDLE Strand 1: PROGRAM STRUCTURE (p. 28)

PRINCIPLE 2

The program ensures equity for all groups.

KEY POINT D

High-quality instruction in both program languages is provided to all students in all grades in a way that is consistent with the program model.

learners often experience reduced exposure to their languages and cultures in school and, in turn, risk becoming disconnected from their families and communities. However, as evidenced by research findings reviewed in Part 2, bilingual learners with disabilities are not disadvantaged by bilingual exposure and dual language acquisition in school or nonschool settings. In other words, reduced exposure to both languages and enforced participation in monolingual programs is not necessary or useful and, furthermore, deprives bilingual learners with disabilities of the potential advantages of full bilingualism.

An unfortunate trend in dual language programs is that bilingual learners with disabilities receive special education services outside of the classroom environment, and often these services are provided only in English. Students are regularly removed from the classroom during science or social studies instruction, for example, to receive reading or math interventions and, thus, do not access the full curriculum. Furthermore, when intervention materials are only in English, students miss out on opportunities to interact in and develop the minority language. In 50/50 programs, this is especially problematic

insofar as the language allocation shifts dramatically to English, and students do not have sufficient access to their home language to develop high levels of proficiency in that language. The integrity of a dual language program relies on students receiving no less than 50% of their instruction in either one of the program languages. When this “nonnegotiable” is ignored in services for bilingual students with disabilities, they are no longer receiving the full benefits of a dual language program.

Major advantages can be derived from DLE that educates the whole child—that is, embraces and promotes their bilingual competence, biliteracy, and sociocultural identities while also responding to their specific educational needs. In short, there is no need to choose between bilingual education and special education goals. When students’ bilingual life experiences and identities are recognized as integral parts of their general education, their unique strengths and experiences become fundamental to building the specialized services that fully and holistically address their particular learning needs (see GPDLE Strand 1, Principle 2, Key Point D).

Integrated Bilingual Special Education

Effective bilingual special education services in dual language programs require that bilingual and special education professionals have regularly scheduled dedicated time to plan and inform each other’s practices. Collaborative planning and co-instruction ensure that bilingual students receive instruction that integrates both language development and special education interventions. When educators’ schedules do not provide protected time for regular collaborative planning, students often receive instruction designed from one perspective but not the other. With such siloed systems and approaches, instruction does not fully address both the language learning and special education needs of bilingual students with disabilities. This often results in services that are compartmentalized, disjointed, and fragmented (Harry & Klingner, 2006). Fragmented educational experiences result in students receiving bilingual services and special education services separately, scheduled in different locations with different providers who are afforded little time to coordinate strategies, approaches, and resources (Delgado, 2010; Harry & Klingner, 2006), and therefore fail to respond to the full range of students’ learning characteristics in comprehensive and effective ways. In contrast, Baca, Baca, and de Valenzuela (2004) conceptualized the education of bilingual learners with disabilities as the intersection of special education and bilingual education services, as illustrated in Figure 1.

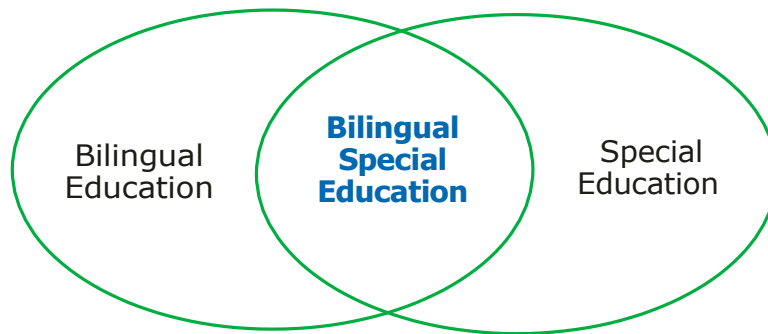


Figure 1. The bilingual special education interface (Baca et al., 2004).

These authors asserted that bilingual students with disabilities are best served by bilingual and special education educators who integrate their knowledge, skills, and resources to ensure that students receive the full range of support and attention they require across all learning environments. Effective service delivery for bilingual learners with disabilities calls for the development of coordinated and coherent instructional environments in which students' cultural, linguistic, academic, socioemotional, and special educational needs are all considered from the outset and therefore experienced seamlessly throughout a student's day, not just in one place or during a certain time (see GPDLE Strand 2, Principle 1, Key Point D).

Collaborative Practice

The guidance provided in the reauthorization of the Individuals with Disabilities Education Improvement Act of 2004 requires that students with disabilities have access to the general education curriculum in the least restrictive learning environment possible (§1400(c)(5)(A), §1481(d)(6)). Instruction in dual language classrooms that integrates bilingual and special education services can provide bilingual learners with disabilities access to the general curriculum in the least restrictive environment because it builds on what they already know in holistic ways that are linguistically and culturally sensitive to their bilingual experiences. In settings where educators systematically collaborate, students with disabilities experience greater overall success when compared to students with disabilities in traditional schools in which teachers often work in isolation (Friend & Cook, 1990).

The creation of integrated learning environments for bilingual learners with disabilities calls for collaborative practices that bring together, at a minimum, educators from both dual language education and special education (e.g., Klingner et al., 2014). Friend and Cook (2016), working in the field of special education, described collaboration as practices and perspectives that educators employ when working together, including the sharing of goals and resources, parity in responsibility for key decisions, joint accountability for outcomes and resources, and development of trust, respect, and a sense of community. In high-quality dual language programs, effective collaborative practices leverage and, thus, enhance the skills, knowledge, and experiences of both dual language educators and special educators, along with related service providers. Collaborative planning can achieve multiple goals. Most importantly, it ensures that the specialized and individualized supports and scaffolds that bilingual learners with disabilities require can be planned and delivered in a coherent fashion for use in all classrooms and contexts that are pertinent to them. This, in turn, ensures that students' days are as seamless as possible.

GPDLE Strand 2: **CURRICULUM (p. 39)**

PRINCIPLE 1

The program has a process for developing and revising a high-quality curriculum.

KEY POINT D

The curriculum is coordinated with support services such as English as a second language, Spanish as a second language, special education, Title I, and gifted and talented.

GPDLE Strand 6: FAMILY AND COMMUNITY (p. 112)

PRINCIPLE 1

The program has a responsive infrastructure for positive, active, and ongoing relations with students' families and the community.

KEY POINT C

Professional development addresses the importance of equity, access, and social justice for effective outreach with families and the community.

Addressing language, literacy, and academic development along with the specific learning needs of bilingual learners with disabilities requires regularly scheduled time for educators and practitioners to collaboratively develop integrated, cohesive, and comprehensive learning experiences (Sánchez-López & Young, 2018) and to document individual students' progress toward their identified combined IEP goals. Collaborative planning can happen in a variety of ways, including face-to-face meetings or virtually, using digitally shared documents, or during online meetings. Whatever strategy is adopted, creating a high level of consistency in program delivery for students with disabilities requires dedicated time to ensure that educators can engage in ongoing, dynamic, and collaborative conversations with one another.

Little (1982) has identified collaborative practice of teachers in effective schools:

- » Engaging in frequent, continuous, and increasingly concrete and precise conversations about teaching practices.
- » Being frequently observed in the classroom and provided with useful critiques of their teaching.
- » Planning, designing, evaluating, and preparing teaching materials together.
- » Teaching each other the practice of teaching (pp. 331-332).

Deep and sustained collaboration among families, educators, school administrators, and other related service providers, including social workers and medical professionals, is also necessary in DLE programs in order to provide linguistically and culturally sustaining and responsive education for bilingual learners with disabilities (see GPDLE Strand 6, Principle 1, Key Point C).

Programs Grounded in Sociocultural Theory

Sociocultural theory provides an understanding of human learning that is fundamental to the teaching and learning of bilingual learners with disabilities. More specifically, sociocultural theory argues that knowledge is developed through social interactions that begin in infancy and are shaped by the cultural and linguistic experiences of young learners in their families and communities (Vygotsky, 1978). Early culturally derived and linguistically embedded

. . . bilingual learners with disabilities can be most successful in school when they are provided education that builds on what they know and how they have learned what they already know . . .

knowledge and ways of learning frame children's understanding of the world and form the foundation for their cognitive development (Gutiérrez & Rogoff, 2003; Orosco, 2010). Bilingual students bring unique culturally and linguistically constructed knowledge and skills to organize their thinking and to acquire new knowledge during formal education (Bransford et al., 2000). The importance of education grounded in sociocultural

theory has been endorsed by a committee of experts from diverse fields who were commissioned by the National Academies of Sciences, Engineering, and Medicine (2018) to synthesize research on the current understanding of learning.

The existing knowledge and skills of bilingual learners with disabilities, like all bilingual learners, may be encoded in languages with cultural perspectives that differ from those encountered during instruction and intervention in special education programs that adopt monolingual or monocultural perspectives. In fact, educational programs for bilingual learners with disabilities have historically adopted a monolingual/monocultural special education perspective without acknowledging how bilingualism interacts with learning during the formative years of development and throughout the school years. Even in programs where students receive bilingual assistance, traditional approaches to special education often address bilingual learners' special educational needs without considering the sociocultural foundations of their existing knowledge and skills. Effective dual language programs for bilingual learners with disabilities recognize the importance of the existing linguistically- and culturally-based knowledge and skills that these learners bring to the learning enterprise in school. In other words, bilingual learners with disabilities can be most successful in school when they are provided education that builds on what they know and how they have learned what they already know in order to facilitate new learning in school in the face of the challenges they might encounter (Hammond, 2015). (See GPDLE Strand 2, Principle 2, Key Point E; Strand 3, Principle 1, Key Point F; Strand 4, Principle 1, Key Point D.)

Building on Little's definition of collaboration discussed earlier, Honigsfeld and Dove (2019), whose work focuses on bilingual/English as a second language educators, developed a framework for effective collaboration in schools applying cultural and linguistic lenses to Little's original framework. Their four C's of collaboration are (1) collaborative conversations among teachers to discuss students' strengths and needs, students' work, and teachers' perspectives on teaching and learning; (2) collaborative coaching, whereby teachers engage in peer coaching to improve all areas of their practice; (3) collaborative curriculum, in which teachers work together to map out and plan curriculum that is differentiated with a variety of lessons and materials to support the wide range of learners they serve; and (4) collaborative craftsmanship, where teachers refine the collaborative process and plan instruction collaboratively in the context of peer coaching and co-teaching. By combining collaborative principles from the fields of special education and bilingual education in culturally and linguistically sustaining and strengths-based ways, educational teams can work together towards better meeting the specific needs of bilingual learners with disabilities while optimizing their capabilities across learning environments.

GPDLE Strand 2: CURRICULUM (p. 42)

PRINCIPLE 2

The curriculum is standards-based and promotes attainment of the three core goals of dual language education.

KEY POINT E

The curriculum is culturally responsive and representative of the cultural and linguistic backgrounds of all students.

GPDLE Strand 3: INSTRUCTION (p. 61)

PRINCIPLE 1

Instructional methods are derived from research-based principles of dual language education and ensure fidelity to the model.

KEY POINT F

Teachers who provide support services (e.g., special education, gifted education, ESL) and specials (e.g., art, music) align their instruction with the dual language model.

GPDLE Strand 4: ASSESSMENT AND ACCOUNTABILITY (p. 80)

PRINCIPLE 1

Student assessment is aligned with program goals and with state and content standards, as the results are used to guide and inform instruction.

KEY POINT D

Referrals for individualized education plans are made on the basis of assessment in both program languages.

Welcoming Bilingual Learners with Disabilities into Dual Language Programs

Eliminating Barriers to Equitable Education for Bilingual Learners with Disabilities

In an international study of children’s development of bilingualism, de Valenzuela et al. (2016) found multiple barriers that restrict dual language learners’ opportunities to develop full bilingual competence in home, community, and school settings. Thus, to ensure that bilingual learners with disabilities have full and equitable access to DLE, educational practitioners and administrators must engage in an ongoing process to identify and remove barriers to their participation in dual language programs (García & Tyler, 2010). Continuous monitoring of potential barriers is also essential to identify and address new or emerging challenges. Examples of questions to answer as part of this ongoing process are presented in Box 2.





BOX 2. ASSESSING POTENTIAL BARRIERS

- ❖ To what extent is the program designed with minoritized bilingual students in mind? For example, barriers arise when the focus of program design and implementation leans toward monolingual English speakers in two-way immersion programs.
- ❖ How are the needs of minoritized bilingual students and specifically those with disabilities reflected in the design of the program, the curriculum, and the unit and lesson planning processes and documents?
- ❖ How much time has been dedicated for ongoing collaboration and professional development that enables both dual language and special education educators to work together regularly?
- ❖ How many high-quality, authentic texts are available for bilingual learners with disabilities that address all content areas and standards in languages other than English and are available at a range of reading levels?
- ❖ How are minoritized bilingual students with disabilities represented in texts and other instructional materials and resources? How many authors of historical and literary texts and materials are representative of historically marginalized populations (including heritage language, indigenous, and LGBTQ+ groups)?
- ❖ To what extent do all teachers (PreK-12) have access to manipulatives and other instructional resources that are linguistically and culturally responsive in order to support science and math instruction for bilingual students with disabilities?
- ❖ What provisions have been made for all school staff, including administrative and instructional, to participate in professional development opportunities to advance their understanding of sociocultural-linguistic diversity, including knowledge of second language learning and dual language education?
- ❖ Are systematic practices in place to address the sensory/environmental challenges of bilingual learners with disabilities (e.g., lighting, sound, temperature, and other conditions) in the classroom and, more broadly, throughout the school?
- ❖ How does the curriculum address and integrate social justice and diversity issues and topics that are integral to the lives of bilingual students with disabilities?
- ❖ What plans are in place to implement equity audits of the program on a regularly scheduled basis?

Summary

A review of empirical evidence indicates that to be effective, bilingual special education services for bilingual learners with disabilities in dual language programs should include multiple, interacting dimensions (see Box 3).



BOX 3. CRITICAL FEATURES OF EFFECTIVE LEARNING ENVIRONMENTS FOR BILINGUAL LEARNERS WITH DISABILITIES IN DUAL LANGUAGE PROGRAMS

- ❖ A strengths-based developmental approach
- ❖ Education of the whole child
- ❖ Integrated bilingual special education services
- ❖ A commitment to sociocultural models and perspectives for instruction and intervention
- ❖ Systematic collaborative practice among professionals
- ❖ Removal of barriers to participation in dual language programs

Characteristics of Effective Interventions for Bilingual Learners with Disabilities

Intervention and instruction are related practices that build upon each other. Interventions are specific instructional approaches, teaching strategies, tools, and/or technologies delivered by educators, interventionists, or related service providers to address the specific needs of individual students. Interventions are designed for individual bilingual learners with identified disabilities to address each student's specific profile of strengths and needs in both languages, as documented in their IEPs. From a sociocultural perspective, interventions are viewed as mediational strategies used dynamically to co-construct meaning through the interaction of educators with students (Damico & Nelson, 2010; Vygotsky, 1978). Interventions may be delivered to individual students or with small groups of selected students and/or be built into general classroom-wide instruction (see also Sánchez-López & Young, 2018 for more details on classroom-based interventions for both young and adolescent bilingual learners with disabilities). This section begins by revisiting and emphasizing the importance of providing special education interventions bilingually and in culturally responsive and sustaining ways for bilingual learners with disabilities. The characteristics of instruction and interventions that have been found to be effective for students with disabilities then discussed, while focusing on how they are made especially effective for bilingual students with disabilities.

Bilingual Lens on Intervention

As with instruction, the overarching approach to and perspective on intervention for bilingual learners with disabilities needs to first and foremost address students' bilingual/bicultural identity. The discussion that follows on the characteristics of effective intervention is grounded in the understanding that the linguistic resources of minoritized students with disabilities are strengths that can be engaged to enhance their learning and well-being.

Language plays a critical role in implementing interventions for bilingual learners with disabilities. Meaning-making happens within and across students' two languages and, thus, is advantaged by the use of bilingual intervention approaches. The effectiveness of dual language instruction is supported by converging studies of bilingual learners with disabilities in a variety of educational contexts that report equal or better outcomes for learners when interventions are provided bilingually versus monolingually. Moreover, bilingual interventions have been consistently recommended for learners with varying levels of disability (i.e., mild, moderate, and severe) and wide-ranging diagnoses including autism, developmental language disorders (DLD), Down syndrome (DS), specific learning disabilities, and intellectual and visual impairments (Bedore et al., 2020; Cheatham et al., 2012; Clark & St. John, 1995; Drysdale et al., 2015; Kay-Raining Bird, Trudeau, & Sutton, 2016; Kohnert et al., 2005, 2021; Lim et al., 2018; Ortiz, 2001; Paradis et al., 2021; Thordardottir, 2010). Additionally, designing special education interventions based on sociocultural perspectives and practices (discussed earlier) is essential to ensure bilingual interventions are culturally and linguistically appropriate (Hamayan et al., 2022; Klingner et al., 2014; Ruíz, 2012).

The accumulating evidence suggests the following advantages of bilingual instruction and intervention for bilingual learners who speak a variety of languages and exhibit a range of disabilities (Cheatham et al., 2012; Kay-Raining Bird et al., 2016; Paradis & Govindarajan, 2018; Paradis et al., 2021):

- » Improved performance in both languages
- » Positive cross-linguistic transfer
- » Continuous development of both languages
- » Greater engagement and participation in lessons
- » Equal or better task completion, communication, and behavioral outcomes
- » Access to all learning resources of bilingual students with disabilities
- » Benefits to social-emotional development within the family

Furthermore, if implemented in a systematic and purposeful way, bilingual intervention enhances the benefits of transfer (Ballinger et al., 2017) and supports continuous development of both languages and, thereby, reduces the risk of language loss, a particular vulnerability for minoritized bilingual students with language-related disabilities (Kohnert et al., 2021; Paradis & Govindarajan, 2018; Salameh et al., 2004). Based on their review of studies of bilingual learners diagnosed with autism, Marinova-Todd and Mirenda (2016) recommended the use of bilingual interventions to address their characteristic vulnerabilities with social communication. They concluded that advice for parents to speak only the majority language at home, typically English, has been found to inhibit parents' communication with their minoritized bilingual children and, thereby, impede the children's social development.

Dual language programs (both 50/50 and 90/10) offer a unique context for bilingual learners with disabilities to continue to access and develop both languages in school, provided all educators and related service providers understand the important role of bilingualism for these students' overall well-being and academic development. Most importantly, developing a bilingual perspective within the team of professionals who plan and implement interventions can positively impact the effectiveness of the interventions.

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Early Intervention and Engagement with Families

Interventions that begin early and engage parents and caregivers from the outset are widely accepted to be beneficial. Early intervention reduces later learning difficulties and, thus, promotes well-being and better general learning (Grigorenko et al., 2020; Lovett et al., 2017). For bilingual children, when difficulties arise at a young age, this necessarily requires intervening in the home language(s). Prioritizing home language(s) early on is important for all bilingual children and especially for those who experience continued learning challenges throughout their lives and, thus, may require long-term support from their parents and extended family. Dual language programs using multitiered systems of support are conducive to providing bilingual interventions early because they can provide for culturally and linguistically responsive interventions for students who experience difficulties, even before identification of a specific disability is possible.

Interventions to support bilingual learners with disabilities are also most effective when parents and families are engaged as partners from the outset (Drysdale et al., 2015; Durán et al., 2016; Johnson et al., 2012). Parents play an integral role in their children's early understanding of the world, their social development, and their emotional well-being. Engaging parents in supporting their children builds a critical foundation for the development of both the home language and the additional language. By communicating with parents in their home language(s), educators can elicit nuanced, detailed information to better understand the nature of the challenges bilingual learners with disabilities experience in school, as well as invaluable insights into how these difficulties impact their lives at home and in the community (Hamayan et al., 2022; Kohnert et al., 2021; Paradis et al., 2021; Sánchez-López & Young, 2018). Communication with parents in the home language can also facilitate parents' understanding of identification processes, school-based interventions, and the importance of home-based interventions to support their child. While collaboration with parents is important in the education of all students, it is particularly important in the case of learners in dual language programs so that parents understand the significance of their contribution to the development of their child's bilingualism on an ongoing basis. Parents are often misguidedly advised to not use the home language(s) and to enroll their children in monolingual programs, despite evidence on the effectiveness of dual language programs.



Kalyanpur and Harry (2012) advocated for culturally-reciprocal special education practices to foster positive parent-professional partnerships. They provided guidance to educators and related service providers on how to initiate authentic two-way information sharing and mutual understanding with parents in support of bilingual children with disabilities. Cioè-Peña (2021) explored how professionals can develop relationships with mothers of bilingual learners with disabilities by seeing them as experts on their children and by observing how they use their funds of knowledge to support their children's educational and socioemotional development. Monolingual educators may need to collaborate with bilingual colleagues and interpreters to facilitate effective communication with bilingual families.

These two programmatic features—early intervention and engagement with families—create a stable bilingual environment in which to apply effective interventions for bilingual learners with disabilities (see also GPDLE Strand 6, Principle 2, Key Points A, C, D, and E).

Integration of Oral Communication

Integrating oral language development during interventions (Hjetland et al., 2017; Klingner et al., 2014; Richards-Tutor et al., 2016) is especially important for bilingual learners with disabilities that are language related (e.g., autism, DS, DLD, reading disabilities). In classroom settings, bilingual learners with DLD may present with receptive difficulties following directions or fully understanding lecture-based content instruction in both languages. Students with DLD may also have expressive language challenges that result in unclear, nonspecific, or disorganized spoken language at the word, sentence, or discourse level. These difficulties can manifest in the classroom as nonspecific use of vocabulary, effort findings words (e.g., pauses, interjections, and reformulations), or grammatically confusing sentences that may cause listeners to have difficulty understanding students' oral contributions (e.g., Leonard, 2014; Paradis et al., 2021).

Effective intervention for bilingual learners with these kinds of receptive and expressive language difficulties necessitates the continued development of their oral communication skills, including both speaking and listening. Frequent and extended oral exchanges in both languages with teachers and peers during regular classroom lessons provide authentic opportunities to practice new vocabulary, grammatical forms, and discourse patterns that are related to the curriculum. In short, high-quality dual language programs afford bilingual students with DLD multiple opportunities to refine, expand, and extend listening and speaking skills in both language.

GPDLE Strand **6: FAMILY AND** **COMMUNITY (p. 114)**

PRINCIPLE 2

The program promotes family and community engagement and advocacy through outreach activities and support services that are aligned with the three core goals of dual language education.

KEY POINT A

The program incorporates ongoing learning activities that are designed to help families understand, support, and advocate for the program.

KEY POINT C

The program plans for and engages in community-building activities with families to promote close relationships, collaboration, and other forms of sociocultural competence.

KEY POINT D

Communication with families and the community is in the appropriate language.

KEY POINT E

The program partners with families to promote home-school connections.

GPDLE Strand 3: INSTRUCTION (p. 62)

PRINCIPLE 2

Instructional strategies support the attainment of the three core goals of dual language education.

KEY POINT A

Teachers integrate language and content instruction.

GPDLE Strand 3: INSTRUCTION (p. 66)

PRINCIPLE 2

Instructional strategies support the attainment of the three core goals of dual language education.

KEY POINT G

Teachers use a variety of strategies to ensure equitable participation among students.

GPDLE Strand 3: INSTRUCTION (p. 58)

PRINCIPLE 1

Instructional methods are derived from research-based principles of dual language education and ensure fidelity to the model.

KEY POINT B

Teachers use sheltered instruction and other pedagogical strategies for bilingual learners to facilitate comprehension and promote language and literacy development.

Explicit Instruction in Meaningful Contexts

Interventions that provide explicit instruction in targeted areas of need have been shown to be most effective for addressing the needs of bilingual learners with disabilities (e.g., August & Shanahan, 2006; Genesee, 2022; Paradis et al., 2021; Richards-Tutor et al., 2016). At the same time, it is crucial that explicit, targeted instruction be provided in meaningful ways (e.g., Nelson et al., 2021). This can be achieved, in part, by integrating explicit instruction of targeted skills with general classroom instruction so that students experience the benefits of intervention for their academic progress during general instruction periods (see GPDLE Strand 3, Principle 2, Key Point G).

In contrast, reductive approaches to special education that teach targeted skills in isolation, divorced from meaning and authentic content-area material, are much less effective for bilingual learners with disabilities (e.g., Gersten & Woodward, 1994; Ruíz, 2012). When educators use decontextualized learning tasks, students may seem to improve on a particular task, but the decontextualized nature of the intervention often inhibits generalization of the targeted skills to authentic speaking and reading activities during the school day (Commeyras, 2007).

Demonstrating and clearly explaining learning objectives, along with the use of models (such as written samples and visual exemplars) and rubrics, can make learning strategies and goals explicit to learners. Making meaningful connections between languages can also serve to enhance both bilingualism and academic progress by taking advantage of cross-linguistic transfer. While it is important for interventions for bilingual students with disabilities to focus on specific needs, these interventions should have multiple components. For example, while targeting phonological awareness in support of decoding, interventions should also include the development of vocabulary and grammar skills in order to ensure comprehensive development of reading skills (Paradis et al., 2021; see GPDLE Strand 3, Principle 1, Key Point B).

Individualized Intervention

Effective interventions for bilingual learners with disabilities address each student's specific profile of strengths and needs and should be flexible enough to adapt as students' needs progress and change (Fletcher et al., 2005; Kohnert et al., 2021; National Academies of Sciences, Engineering, and Medicine, 2017; Paradis et al., 2021). Individualization necessarily entails the use of a variety of intervention strategies that can be modified dynamically as each student makes progress or needs additional support (Hamayan et al., 2022). Moreover, selected intervention strategies (e.g., models, prompts, providing choices) can be used with varying frequency and intensity to match individual students' needs and growth; for example, the nature and the degree of scaffolding can diminish gradually as a student gains competence and confidence (Damico & Nelson, 2010; Ruíz et al., 1996). Intervention should

be sustained to provide sufficient practice of new strategies and skills to consolidate learning and promote mastery in accordance with the level of each student's needs (Paradis et al., 2021).

Klingner et al.'s (2004) collaborative strategic reading is an example of effective classroom-based reading intervention for bilingual students with disabilities that is delivered in inclusive classrooms at least twice weekly, across content subjects, throughout the school year. The intensity of focused practice can be increased by shifting to small student groupings or one-to-one sessions and by providing each student with increased opportunities to use new strategies and skills while receiving individualized feedback. In brief, individualization of special education interventions should be dynamic to correspond to the current and changing needs of individual students, and the intensity and duration of intervention should reflect the level of students' specific needs over time (see GPDLE Strand 3, Principle 1, Key Point G).

Recurrent Practice with Scaffolded Peer Interactions

Effective interventions afford repeated opportunities for students to practice and use new skills across varied learning contexts and classroom settings. By planning and working collaboratively, educators can provide multiple opportunities for students to practice new skills throughout the school day. For example, teachers can collaborate to design and use common bilingual graphic organizers, writing rubrics, and reading comprehension strategies within grade levels and across content classes. Collaborative implementation of these strategies can support bilingual learners with disabilities throughout the school day and across learning environments over time (Damico & Damico, 1993; Hamayan et al., 2022; Ruíz et al., 1996; Westernoff et al., 2018). This close collaboration is one way for monolingual English-speaking and bilingual educators as well as related service providers to support the same approaches across settings, thus contributing to a cohesive and connected instructional day for bilingual learners with disabilities.

Effective intervention also provides bilingual learners with disabilities regular and frequent opportunities to practice new skills and demonstrate new learning through interactions with their peers in pairs and small groups (Klingner et al., 2014; Paradis et al., 2021; Ruíz et al., 1996; Sánchez-López & Young, 2018). Engaging students in interaction with peers leverages the social nature of learning while providing multiple opportunities for students to refine their communication skills in both languages (see Sánchez-López & Young, 2018 for an overview of classroom-based intervention for bilingual learners with disabilities). Strategic use of cooperative groupings is particularly recommended for oral language development and reading instruction (Klingner & Vaughn, 2000). In dual language programs where students from different linguistic groups are all aiming at bilingual proficiency in each other's language, students can act as peer models for one another in both social and instructional settings. This built-in, nonthreatening peer language modeling feature of dual language programs allows students to develop language skills as they interact meaningfully during instruction and intervention (see GPDLE Strand 3, Principle 3, Key Points B and C).

GPDLE Strand 3: INSTRUCTION (p. 61)

PRINCIPLE 1

Instructional methods are derived from research-based principles of dual language education and ensure fidelity to the model.

KEY POINT G

When delivering instruction, teachers take into consideration the varying needs of students with different language learner profiles (e.g., native speakers, second language learners, new arrivals, students who are already bilingual in English and the partner language).

GPDLE Strand 3: INSTRUCTION (p. 67)

PRINCIPLE 3

Instruction is student centered.

KEY POINT B

Teachers create meaningful opportunities for sustained language use.

KEY POINT C

Student grouping maximizes opportunities for students to benefit from peer models.

GPDLE Strand 3: INSTRUCTION (p. 68)

PRINCIPLE 3

Instruction is student centered.

KEY POINT D

Instructional strategies build independence and ownership of the learning process.

Maximization of Student Independence

Effective interventions are designed to maximize independence so that students can successfully integrate their newly acquired learning strategies and skills in all learning environments in school, in both languages, and in their daily lives outside school (Sánchez-López & Young, 2018). Educators and related service providers can promote student autonomy by providing sufficient practice for individual students to ensure success and thereby build their confidence to act and learn independently in their classrooms. For example, teaching students how to use bilingual software applications for speech to text writing and text to speech reading, translation apps, or augmentative and alternate communication and auditory amplification systems can all foster autonomy and, furthermore, develop students'

functional proficiency in both languages. As students with disabilities develop competence using learning tools and technologies in specific subject areas and domains of learning, they develop confidence to refine and modify use of these tools in different subjects and grades and in home and community settings. Maximizing independence is especially important for bilingual students with profound disabilities so that they can integrate bilingual tools and technologies for learning into their lives outside school (see GPDLE Strand 3, Principle 3, Key Point D).

Student Engagement

When bilingual learners with disabilities are fully engaged and interested in classroom activities, learning is optimized and they can demonstrate the full range of their abilities. To be interesting enough to engage students, learning in dual language programs must be relevant to their lives and aligned with their cultural and linguistic experiences. To maximize student engagement (see Box 4), the learning environment should provide opportunities for students to choose what and how they learn (CAST, 2018), as much as possible. Engagement can also be enhanced by providing bilingual students with disabilities regular opportunities for authentic interactions with peers while participating in enjoyable and meaningful learning projects.



BOX 4. COMPONENTS OF ENGAGEMENT THAT LEAD TO BETTER OUTCOMES

1. Time on task (in which more time for engagement is better)
2. Affect (wherein enthusiasm and enjoyment promote engagement)
3. Depth of cognitive processing (which leads to cognitive engagement)
4. Active pursuit of activities (which promotes learning and results in greater engagement and better learning)

Source: Guthrie et al. (2006).

Research-Informed Implications for Inclusive Programs and Practice

Cognitively engaging activities are open-ended tasks and questions that engage students in thinking creatively and critically about the text they are reading or the theme they are discussing (Cloud et al., 2009). Classroom-based activities that foster engagement provide students sufficient time to think, encourage them to make connections between the learning in school and their lives, and provide extensive opportunities to practice speaking, listening, reading, and writing with peers for real purposes (Echevarria & McDonough, 1995). Bilingual learners with disabilities in dual language programs become engaged in learning when they are afforded ample practice using authentic and meaningful communication in both languages so that they can develop and expand their speaking and comprehension skills in both languages. Although engagement in interesting, authentic, and challenging activities cannot diminish the underlying learning difficulties of bilingual learners with disabilities, it can ensure that they remain involved in the task at hand for longer periods and, thus, experience greater progress in learning. Since students in dual language programs are expected to develop proficiency, sociocultural competence, and content-area knowledge and skills in two languages, it is especially important that dual language programs promote high levels of engagement among students with disabilities so that they can achieve grade-level standards and expectations (see GPDLE Strand 3, Principle 3, Key Points B and C, and Principle 4, Key Point A).

GPDLE Strand 3: INSTRUCTION (p. 67)

PRINCIPLE 3

Instruction is student centered.

KEY POINT B

Teachers create meaningful opportunities for sustained language use.

KEY POINT C

Student grouping maximizes opportunities for students to benefit from peer models.

PRINCIPLE 4

Instructional staff effectively integrate technology to deepen and enhance the learning process.

KEY POINT A

Instructional staff use technology tools to engage all learners.



PART 4: SUMMARY AND RECOMMENDATIONS

Many of the components of supportive and inclusive learning environments for bilingual learners with disabilities, as discussed in this paper, are also important components of dual language programs for bilingual learners in general. Indeed, the programmatic features outlined in the *Guiding Principles for Dual Language Education* (GPDLE) that are intended as guidelines for all dual language programs align with and are complementary to the critical program and intervention features discussed in this white paper to ensure the successful participation of bilingual learners with disabilities in these programs. Box 5 is a summary of these critical program and intervention features.



BOX 5. CHARACTERISTICS OF EFFECTIVE DUAL LANGUAGE PROGRAMS AND INTERVENTIONS FOR BILINGUAL LEARNERS WITH DISABILITIES

Critical features of dual language programs for bilingual learners with disabilities

1. Have a strengths-based developmental approach
2. Educate the whole child
3. Integrate bilingual special education services
4. Show a commitment to sociocultural perspectives during instruction and interventions
5. Engage in systematic collaborative practice
6. Remove barriers to participation in dual language programs

Critical features of interventions for bilingual learners with disabilities in dual language programs

1. Maintain a bilingual and bicultural lens on services provided to bilingual learners with disabilities
2. Intervene early and engage parents and families
3. Provide explicit instruction in meaningful contexts
4. Implement intensive, dynamic, and sustained intervention
5. Practice recurrently across settings through peer interaction
6. Maximize student independence
7. Engage students in their learning
8. Continue to develop and integrate oral communication into instruction

Research-Informed Implications for Inclusive Programs and Practice

The following recommendations can serve as guidelines for schools and school districts to create high-quality dual language programs that optimize the achievement of bilingual learners with disabilities.

1. **Inclusive education and barrier reduction.** Develop a process that can be used by all concerned to identify potential barriers to educational opportunities to advance the bilingual competence of bilingual students with disabilities. At the program level, provide opportunities for teams to regularly reflect on potential barriers for learner participation and develop an action plan to eliminate existing barriers and provide enhanced access going forward. Consult with parents about barriers they perceive that impede their children's access to dual language education. Similarly, schools can create advisory committees comprising teachers who audit school and classroom policies and practices that may impede students' full access to learning.
2. **Professional learning.** Provide opportunities for all educators, administrators, and related service providers to learn about and implement the sociocultural theory of learning as well as instructional/intervention approaches with the characteristics discussed in this white paper. Encourage all educators and related service providers in the school to support one another at all stages of program and curriculum development. Collaborate with relevant specialists in the district and community to build community resources to support the program and with university researchers to conduct action research to examine the effectiveness of the school's program, instruction, and interventions.
3. **Strengths-based framework.** In a related vein, ensure that all school personnel, including administrators, develop a strengths-based system that supports bilingual learners with disabilities and ensures that these students' sociocultural and multilingual resources are an integral part of their instruction, intervention, and assessment.
4. **Individualized intervention.** Build educator competence in the delivery of the individualized support that bilingual learners with disabilities require to succeed in dual language programs. This will require the implementation of effective, research-based instruction and intervention approaches across the curriculum and throughout the school. Plan curriculum and instruction so that students' learning experiences reflect strengths-based, socioculturally responsive, and whole-student perspectives that are coordinated among dual language and special educators and related service providers to develop comprehensive and coherent education.
5. **Collaboration.** Set aside dedicated time on a regular and frequent basis for dual language educators and special educators to collaborate in planning and implementing instruction, intervention, and assessment in accordance with the findings and recommendations in this white paper. Encourage all sectors of the school to collaborate to learn about each other's roles and specializations in support of bilingual students with disabilities.

This white paper can be a useful starting point to devise tools and checklists to assess the learning environment of the school and of classrooms to provide an optimal learning environment for bilingual learners with disabilities.

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Fred Genesee is Professor Emeritus in the Psychology Department at McGill University, Montreal. He has conducted extensive research on dual language education for language minority and language majority students, the academic development of at-risk students in dual language programs, and language acquisition in typically-developing and at-risk learners. He has published numerous books and articles in scientific journals and magazines. He is the recipient of the Pimsler Award for Research in Foreign Language Education, Canadian Psychological Association Award for Distinguished Contributions to Community or Public Service, and the California Association for Bilingual Education Award for Promoting Bilingualism.

John Hilliard's 30 years in education have spanned a range of roles, from award-winning bilingual teacher, to university instructor providing teachers with strong research-based foundations in the field of language minority education, to his current position as a national professional developer recognized for his innovative approaches. John focuses on developing programs and approaches that effectively integrate technology for language and content learning. He is especially interested in protocols to support innovation in teaching and learning. Through Paridad, John is pushing himself and others to look beyond traditional confines of the classroom to expand the possibilities of personal and professional learning.

Cristina Sánchez-López collaborates with educators in the US and Canada on many issues related to the education of Multilingual Learners (MLs) including developing culturally and linguistically sustaining Multi-tiered Systems of Support (MTSS); bilingual special education; middle school mathematics; curriculum development; literacy across the content areas; parent engagement and supporting Early Childhood educators who serve young Dual Language learners (DLLs). Cristina has taught at the elementary, middle school and university levels in the US and Mexico. She currently teaches graduate and undergraduate courses in multilingual education. Cristina is co-author on a number of publications on the education of Multilingual Learners.

Theresa Young began her career as a speech-language pathologist on the Pacific Island of Saipan, followed by working in highly diverse urban schools in Toronto, Canada. In her most recent chapter, she is an independent practitioner in her small hometown and supports surrounding First Nation communities, in rural Ontario. Theresa has embraced diversity throughout her clinical practice with preschool, school age and adult populations in education, healthcare, and community settings. Her collaborative spirit has led to publications and professional learning on these topics with colleagues in Canada and the United States.

Together, Cristina's and Theresa's collaborative work melds the fields of bilingual learning and special education into a framework for evidence-based instruction and intervention for multilingual learners in an Oxford University Press publication, *Concepts for the Language Classroom Series, Focus on Special Educational Needs* (2018). They bring their wide-ranging school-based experiences into professional learning for practitioners in the United States and Canada. Their collaborative work is featured in the third edition of *Special Education Considerations for English Language Learners: Delivering a Continuum of Services* (2022) and in an upcoming chapter entitled Collaborating at the Bilingual Special Education Interface in *¡Qué BUENO! A History of the BUENO Center and its Legacy*.

ABOUT THE ORGANIZATION

The mission of the **National Dual Language Forum (NDLF)** is to advocate for quality dual language bilingual education that is rooted in principles of social justice, equity and access. NDLF represents a collaborative network of expert organizations and researchers dedicated to dual language education. The NDLF provides a forum to impact issues of consequence to dual language education in the United States and offers research-informed resources for policy makers, researchers, practitioners, and families in support of effective dual language programs.

Organizational members of the NDLF include a growing cadre of organizations committed to dual language bilingual education and supporting high-quality, effective programs: Association of Two-Way and Dual Language Education (ATDLE), BUENO Center for Multicultural Education, California Association for Bilingual Education (CABE), Center for Advanced Research on Language Acquisition (CARLA), Center for Applied Linguistics (CAL), Dual Language Education of New Mexico (DLeNM), Multi-state Association for Bilingual Education Northeast (MABE), National Dual Language Immersion Research Alliance, Paridad, and WIDA. Learn more at www.cal.org/ndlf.



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