Executive Summary

Bilingualism is prevalent throughout the world as children routinely learn two or more languages with the support of their families and communities, and in some cases, their schools. In the United States, the number of young bilinguals in PreK-12 settings in established and new immigrant destination areas is rapidly increasing. This white paper presents a summary of key findings and patterns of early bilingual development and separates common myths from scientific findings about childhood bilingualism. When carefully analyzed, the research often contradicts common beliefs—or myths—held by many, including parents, general educators, education specialists and other professionals who work with young children (e.g., doctors, speech-language pathologists), and educational policymakers. These myths have influenced home and school language practices, instruction, assessment and support services, and the organizational structures of education programs serving young bilinguals. With a solid understanding of how language develops for young bilinguals, families, education professionals, and policymakers can nurture and encourage bilingualism as a valued individual and societal asset.
Recommendations

For Families

• Speak to your child in the language you feel most comfortable using. This will foster rich interactions and ample opportunities to practice language, and will establish a strong foundation for your child to learn additional languages and academic content.

• Be intentional about typical and natural verbal interactions regarding everyday objects, routines, and events in your child’s life.
  ◊ Children learn language by listening to and interacting with different speakers.
  ◊ Everyday activities such as mealtimes, getting dressed, bath time, and playtime are all opportunities for talking, teaching, and providing quality language exposure.

For Practitioners

• Gather information about each young bilingual’s unique characteristics, strengths, and needs by observing his or her interactions with adults and peers.

• Individualize the curriculum to the specific strengths and needs of each child, and scaffold the curriculum with targeted learning experiences that build on these strengths.

• Engage families and community members as partners in young bilinguals’ education.
  ◊ Home-school communication should be ongoing to increase your understanding of children’s linguistic and cultural resources, to provide information to families, and to involve them in decision-making.
  ◊ Invite bilingual family members and community volunteers to your classroom on a regular basis to read to young bilinguals, teach children traditional songs or simple rhymes, and talk with children during snack/meal, small group, outdoor, and free choice/play times in their home language.

For Policymakers

• Become well versed in current theory and research regarding the benefits of using young bilinguals’ home language in their education so that it takes center stage in developing policy.

• Support and expand educational programs that have demonstrated success in providing a challenging, high-quality education and that build on the strengths young bilinguals bring to school, particularly their home languages and cultures.

• Start bilingual educational support early through meaningful bilingual early childhood programs.
  ◊ Ensure that multilingual early childhood programs are available and that early assessment and intervention, when appropriate, are done in children’s home languages.
  ◊ English-speaking children could also benefit from multilingual early childhood programs by participating in and becoming familiar with different languages and cultural practices early in life.
Defining Bilingualism and Bilinguals

Over the last few decades, researchers have been actively involved in studying bilingual acquisition in early childhood; although we have much more to learn about this process, we now have a more detailed description of important aspects of bilingual development than before. When carefully analyzed, the research often contradicts common beliefs—or myths—held by many, including parents, general educators, education specialists and other professionals who work with young children (e.g., doctors, speech-language pathologists), and educational policymakers. These myths have influenced home language practices, instruction, assessment and support services, and the organizational structures of education programs serving young bilinguals. Intended for parents, education professionals, policymakers, and others who might play a role in fostering young bilinguals’ development, this white paper summarizes the patterns of early bilingual development and separates common myths from key scientific findings about childhood bilingualism.

Bilingualism is prevalent throughout the world as children routinely learn two or more languages. It is estimated that one in three people are bilingual or multilingual (Wei, 2000); in some areas where contact between languages is typical due to immigration patterns or geographical proximity between countries, the figures are higher. In the United States, a large and growing number of bilinguals live in Texas, California, Florida, Arizona, New Mexico, and New York. Nationally, the number of young bilinguals in PreK-12 educational settings in established and new immigrant destination areas is rapidly increasing. In the past 25 years, this population has more than doubled and is growing much more rapidly than the English-
The U.S. Census Bureau projects that by the 2030s, children growing up with two languages will constitute 40 percent of the school-age population. Speaking student population. For example, between 1995 and 2010, the national public school enrollment of young bilinguals grew by 64 percent, whereas the entire student population grew by only four percent (National Clearinghouse for English Language Acquisition, 2011). The U.S. Census Bureau projects that by the 2030s, children growing up with two languages will constitute 40% of the school-age population. For preschoolers, the numbers are rising even more rapidly due to increasing immigration and birth rates (Center for Public Education, 2012). Given these statistics, the importance of understanding bilingual development in the early childhood years becomes clear. Apprehensions and misconceptions about young bilinguals abound, and these misunderstandings can lead to erroneous interpretations of young bilinguals' language as delayed or impaired, and subsequently to educational decisions that are not in their best interests.

Usually, when the term bilingual comes up, people define it as proficiency in two or more languages. This view of bilingualism, however, has led to a number of popular myths that are based on monolingual norms and assumptions about how well bilinguals know—or should know—their languages. One common notion is that children become perfectly balanced bilinguals; that is, that they can do everything similarly in two languages. The hope is that a young bilingual will perform like two monolinguals (i.e., children growing up with one language). This idea of balanced bilingualism is a widespread myth that is part of a monolingual view of language, in which monolinguals are seen as fully fluent in one language and, therefore, bilinguals must become fully fluent in two languages. However, the reality is that being bilingual is not just about proficiency in two languages; it is also about use of and experience with these languages. For bilinguals, each language tends to have different purposes and support different uses. Bilinguals tend to use each of their languages in different places, at different times, and with different people. Put simply, the two languages serve as different tools for different jobs. Thus, bilinguals do not, and cannot, function like two monolinguals. In fact, their degree of competence in both languages is greatly influenced by the way each language is used, and this differs greatly from individual to individual and changes over time. Since bilinguals use their languages in different circumstances and with different people, it is unrealistic to expect them to have the same language skills and experiences as monolinguals, who only use one language to accomplish all communicative tasks.

Bilinguals know more than one language to different degrees, and use these languages for a variety of purposes (Grosjean, 2010).
language. In almost all cases, bilinguals will exhibit higher proficiency in one language than the other. Some bilinguals are dominant in one language, others do not know how to read and write one of their languages, and others have only receptive knowledge of one of their languages (i.e., they can understand it but have limited productive communicative skills). A bilingual’s language repertoire may change over time; as the environment changes and the needs for particular language skills also change, so will the bilingual’s competence in various language skills. New situations, new conversation partners, and new language functions will involve new linguistic needs and will therefore change a bilingual’s available range of resources. Thus, there is no such thing as a “true bilingual,” as bilinguals represent a variety of profiles depending on their level of development in each language, whether they are literate in either or both languages, and to what extent and for what purposes they use each language.

However, bilingualism in children is defined by exposure to two languages rather than by proficiency or experience in two languages. Bilingualism develops because children are exposed to two languages and confronted with situations in which they must use these languages for different social and cognitive purposes. Therefore, if a child is exposed to more than one language, can communicate with others, and consequently is able to understand some things in each language, the child qualifies as a young bilingual, or dual-language learner. Researchers generally consider children to be bilingual if they receive at least 10-25% of exposure to each language (Place & Hoff, 2011; Marchman, Fernald, & Hurtado, 2010; Marchman, Martinez-Sussmann, & Dale, 2004), but this level of exposure does not guarantee eventual attainment of advanced bilingual proficiency. Children can acquire multiple languages simultaneously (i.e., at the same time), or sequentially (i.e., one after the other). The next section details key findings about patterns of childhood bilingualism.
Bilingual Development During Childhood

Children are born ready to become bilinguals! Infants have the innate capacity to learn more than one language from birth, to distinguish each language, and to interpret cues in their environment to know which language is appropriate in a given context (De Houwer, 2009). Babies can distinguish the sound of languages they have never heard. They can discriminate rhythmically dissimilar languages like Spanish and English at birth (Byers-Heinlein, Burns, & Werker, 2010; Mehler et al., 1988), and can tell apart rhythmically similar languages like Spanish and French by the age of four months (Bosch & Sebastián-Gallés, 1997, 2001). These findings suggest that infants who are exposed to two or more languages early within their first year of life are sensitive to perceptual information that distinguishes their languages and use this information to make sense of patterns in the languages they hear regularly.

The research on childhood bilingualism makes it clear that young bilinguals are active, creative, and flexible learners of two (or more) languages. Just as children’s everyday experiences differ from one another, children follow different paths to acquiring multiple languages. Because young bilinguals’ exposure to their developing languages varies and can fluctuate greatly over time, family members, educators, and other professionals who work with young bilinguals need to collaborate to build a solid understanding of what it means for a child to become bilingual and how to support bilingual development under various circumstances.
Infants learn language through listening to and interacting with different speakers. When young children have been consistently exposed to two languages from a very early age, we refer to this as *simultaneous acquisition of two languages*, or *bilingual first language acquisition*. In this case, children do not have one native language, but two, as they are bilingual from birth. Bilingual infants develop two separate but connected linguistic systems during their first year of life. Generally, exposure to more than one language before age three is considered to be simultaneous acquisition (De Houwer, 2009).

Simultaneous, or native, bilinguals develop most aspects of language in very similar ways to monolingual children. That is, young bilinguals who have regular and rich exposure to both languages on a daily or weekly basis from caregivers acquire the properties of the languages and exhibit the same language development milestones, at roughly the same ages, as monolingual children. It is important to remember, however, that there are individual differences in language acquisition among bilingual children, just as there are differences among monolingual children. For example, some children acquire their first words or use complex utterances much earlier than other children. Delay in the emergence of these milestones does not necessarily mean that there is something wrong; in most cases, it simply means that the child has taken longer to reach this stage. In general, language development for simultaneous bilinguals is more complicated than that of monolinguals because degree of proficiency in each language and amount of use of each language vary among bilinguals and change within an individual over time. It is important to keep in mind that growth in each language will depend on exposure to, and experience with, each language.

Around a young bilingual’s first birthday, the child may utter his or her first words in one or both languages. Early on, the vocabulary of simultaneous bilinguals includes words from both languages, but usually only one label for each object or action in one of the languages. That is, simultaneous bilinguals initially do not learn all words in both of their languages. Later, they begin to separate their vocabularies, using equivalent terms in each language, but a combination of the grammatical patterns of both languages. Vocabulary size and the amount of exposure to a language are related so that children’s vocabulary in the language of higher exposure is larger. While bilinguals’ growth in each language may be uneven due to different experiences in each language, young bilinguals’ vocabulary—when combined—tends to show a similar number of meanings to the vocabulary of monolingual children.
During the early stages of language production, young bilinguals—like their monolingual counterparts—define the boundaries of words and try to express themselves with the vocabulary available to them. Sometimes children over-extend the meaning of a word. For example, a child might use the word “dog” to refer to any four-legged animal. Similarly, a child might under-extend word meanings (e.g., using the word “dog” just to refer to the family’s own dog). At around eighteen months old, many children begin to string two words together to make phrases. From then on, their utterances become progressively more complex, so that they move toward three- and four-word combinations. Three element sentences emerge during this time (e.g., “That my toy,” “Mommy come now.”). At three to four years, children start to experiment with simple but increasingly longer and complex sentences involving more than one clause. To connect their ideas, children begin to use conjunctions such as “and” and “but.” They also start to demonstrate an understanding of turn-taking in conversations during this stage. From four years onward, children construct increasingly complex sentences and engage in structured conversation. They begin to use pronouns and auxiliary verbs, progressing toward more sophisticated uses of language.

Unique to young bilinguals, however, is the phenomenon of codemixing. Young bilinguals sometimes mix elements of two languages in the same sentence or phrase, including sounds, words, phrases, or grammatical structures of language. Codemixing is a common and normal feature of bilingual development (Poplack, 1980) that evidences young bilinguals’ resourcefulness and creativity with language. There are many reasons why young bilinguals codemix. One reason is that, like young children growing up with one language, young bilinguals are still developing their linguistic resources. If a young bilingual does not know or cannot quickly retrieve a word in one language, the child might tap into the other language to fill that gap (Lanza, 2004). Another reason young bilinguals codemix is that they are responsive to the linguistic situation, including the conversation partner’s language use, the topic, and their communicative purposes. Codemixing is a common language practice in many bilingual communities, and thus, young bilinguals engage in the same practices that they hear being used around them (Comeau, Genesee, & Lapaquette, 2003). Young and older bilinguals match their language to that used by their conversation partner and codemix to appeal to their audience, to quote someone, and to show that there has been a shift in topic (Genesee, Boivin, & Nicoladis, 1996; Genesee, Nicoladis, & Paradis, 1995; Goodz, 1989; Lanvers, 2001; Lanza, 2004; Meisel, 1990; Vihman, 1998). While negative attitudes toward codemixing abound, the research is clear: Young bilinguals’ codemixing is systematic and demonstrates that children are actively, flexibly, creatively, and effectively attempting to communicate given
their still-developing linguistic resources. Parents and teachers should not try to stop children from doing this or penalize them for mixing, but instead should recognize that codemixing is a natural bilingual behavior that serves children’s communicative purposes. Young bilinguals will naturally stop codemixing in situations that demand monolingual uses of language as their bilingual proficiency increases. This shows how adaptable and sensitive bilinguals are to the people with whom, and the settings in which, they interact.

Sequential Childhood Bilingualism

Bilingual development in children who acquire a second language after the basis for their first language has been established—usually around age three—looks a bit different. Sequential bilinguals go through the complicated and extended process of learning the patterns of their first language and, with exposure to a second language, go through a specific developmental sequence that builds on what they know about their first language to acquire and integrate patterns and uses for their new language into their linguistic repertoire (i.e., they do not go back to where they were when they were a baby to start the language acquisition process all over again). Often children begin the sequential bilingual process by using their home language to communicate as they start to learn words in the new language. This works well in bilingual contexts where at least some people share their home language and can understand them.

Sequential bilinguals then move into the second stage of bilingual development, which is the observation and listening period. In situations where there is no one with whom they can communicate upon initial exposure to the new language (e.g., preschool contexts where no one speaks the child’s home language), children will go into a “nonverbal period” during which they may stop talking; however, this does not mean that nothing is happening during this period in terms of development. What children are doing during this observation period is collecting data about the new language and trying to make sense of known and new language patterns. That is, sequential bilinguals are listening, watching, and even rehearsing what they are hearing in the new language, but they are doing it mostly internally or so quietly that no one else may hear it.

Stage three of sequential bilingual development entails some limited use of the new language via telegraphic and formulaic communication. When children are ready to start using the second language, they begin expressing themselves with single words or very short phrases
in the form of telegraphic speech (e.g., “no go,” “you color”). They also use formulaic phrases that they frequently hear in their environment (e.g., “I wanna play.”). However, this does not mean that they know what each component of the phrase means, or even how to put the entire phrase together by themselves. Sequential bilinguals learn those types of formulaic phrases by hearing others use them, learning the whole chunk, and using it to participate in social situations, games, or conversations with others.

As sequential young bilinguals begin to demonstrate an understanding of the patterns of their new language, they apply these patterns to achieve increasing control over the language. Eventually, children take those formulaic phrases they have learned and break them up into functional, meaningful pieces. In the next stage of sequential bilingual development, children build new phrases and sentences with those pieces, expanding their communicative repertoire in their new language. With additional experience, exposure, support, and opportunities to use their developing new language, sequential young bilinguals begin to use the new language much more creatively and sound more like proficient speakers.

It is important to remember that there are considerable variations in terms of the rate at which children pass through these stages. For example, the observation and listening period can last for a few weeks, a few months, or sometimes longer. As with monolingual children, young bilinguals are individuals who learn in their own way and at their own pace. Further, it is important to remember that a child's existing language knowledge is a valuable reservoir of linguistic resources for additional language learning. That is, all language learners rely on their existing linguistic knowledge when acquiring a new language.

The phonology, vocabulary, grammar, and other subsystems of the native language can provide essential scaffolding for building knowledge of the second language, and this reliance on the native language is most prominent when children’s resources in the second language are just emerging. When the native language is different from the new language with respect to, for example, rules for pronunciation or word order in sentences, children’s application of known patterns—or overgeneralization—may result in nonstandard production of the new language. Thus, differences in the sound system of the native language—when compared to the sound system of the new language—may influence pronunciation, resulting in what may sound like a non-native accent. Similarly, differences in the syntactic patterns of the native language and those of the new language may result in nonstandard word order, or the omission of words in a sentence. An example is when a young Spanish/English bilingual
applies the Spanish language word order of *noun, then adjective* to English, resulting in a nonstandard noun phrase such as “the car red.” These language interactions are common—and normal—in the sequential bilingual acquisition process. Such cross-linguistic influence, or application of language patterns from one language to another language, is often referred to as *transfer*.

We often see evidence of transfer only when it results in nonstandard language usage, or what might sound like an “error.” But transfer also occurs when the two languages share the same patterns. When transfer results in the production of a standard language pattern—meaning that the two languages work similarly—its facilitative effects become clear, although they may go unnoticed. An example is when a young Spanish/English bilingual applies the pattern for pluralizing nouns in Spanish to the pluralization of English nouns (e.g., “perro/s” ➔ “dog/s”), as both languages use a similar process for inflecting nouns for number. These examples of cross-linguistic transfer illustrate children’s resourcefulness in language learning as they apply what they know about language to experiment with and acquire new patterns and more complex structures.
Important Factors in Childhood Bilingual Acquisition: Quality and Quantity of Language

Rich language input and varied and authentic opportunities to use each language support young children’s bilingual development. Young bilinguals, like their monolingual peers, learn language through listening to and interacting with different speakers, and they benefit from consistent and rich exposure to the sounds, words, and grammars of their languages. In the bilingual language learning process, both quality and quantity matter. High-quality language exposure involves social interaction across various contexts, for a variety of authentic purposes, and with different speakers who accommodate and adjust their message in developmentally appropriate ways. Quantity can be measured by children’s exposure to each language on a daily or weekly basis. While each language in bilingual development influences the other to a certain degree (Döpke, 2000), in many ways they develop independent of each other. Young bilinguals who have more exposure to one language (versus the other) advance more in that language (Hoff et al., 2012; Pearson & Fernández, 1994) and show more efficient processing of that language (Conboy & Mills, 2006; Hurtado, Grüter, Marchman, & Fernald, 2013; Marchman et al., 2010). Young bilinguals often have a dominant—or stronger—language, and this will not necessarily remain the same throughout their childhood. Unequal exposure to the languages may cause one to develop at a faster rate than the other. With this in mind, it is important to remember that most bilinguals do not use both of their languages with the same people, for the same purposes, or in the same amounts. All of these variations of use influence the dual-language development process as well as children’s proficiency in each language. The key to sustaining bilingual development over the lifespan is having continued opportunities to use each language regularly for a variety of authentic purposes.
Conclusions

Typical development of dual-language abilities in young children involves both similar and different patterns than the language development of monolingual children. The research on childhood bilingualism makes clear that young bilinguals are active, creative, and flexible learners of two (or more) languages. Young children have the potential to develop dual-language and literacy skills in supportive contexts that include the classroom, home, and community.

Some key points to remember about bilingual development in childhood include:

- Young bilinguals reach early linguistic milestones at roughly the same ages as monolingual children.
- Young bilinguals’ early vocabularies in each language tend to be smaller than those of monolinguals, but when combined, their conceptual vocabulary is as big as, or bigger than, the vocabularies of monolinguals.
- Young bilinguals are not, and cannot be expected to be, equally fluent in each of their languages, and their language proficiencies change over time. Proficiency in each language is related to exposure and opportunity to use each.
- Young bilinguals use their developing understanding of how language/s work as important resources. “Errors,” or approximations to standard usages, are a natural part of the language learning process for both bilingual and monolingual children.
- Codemixing is a typical bilingual behavior that supports communication and meaning-making.
References


Author Note

The activities of the Crane Center for Early Childhood Research and Policy (CCEC) are supported in part by a generous gift of the Crane family to The Ohio State University. The content of this work reflects the views and opinions of the named author, and does not necessarily reflect those of The Ohio State University. Correspondence concerning this work may be sent to Dr. Mileidis Gort at gort.4@osu.edu.

About the Crane Center for Early Childhood Research and Policy (CCEC)

The Schoenbaum Family Center and Crane Center for Early Childhood Research and Policy are partnering centers in the College of Education and Human Ecology at The Ohio State University, located in the Weinland Park neighborhood. This partnership is composed of three entities including the A. Sophie Rogers School for Early Learning, Schoenbaum Family Center Community Programs, and the Crane Center for Early Childhood Research and Policy. The shared vision is to be a driving force in improving children’s well-being through research, practice, and policy.

The CCEC white paper series provides original research and thinking to practitioners and policymakers on matters of pressing concern. The recommended citation for this paper is: