

Bilingualism and Biliteracy for All

Celebrating Our Linguistic Strengths



BY CHAN LÜ

About one-third of children under age 8 in the United States have at least one parent who speaks a language other than English at home.¹ And as of 2016, 9.6 percent of all U.S. public school students were identified as English language learners.² It is obvious that the American student population is becoming increasingly multilingual.

This trend is often widely celebrated in other countries. But as scholars who have focused on an array of issues related to borders and democracy have noted, the United States has a complex history with bilingualism:

In many countries, the ability of children to speak more than one language is seen as important. Such is generally not the case in the United States. As sociolinguist Joshua Fishman and his coauthors have claimed, “Many Americans have long

been of the opinion that bilingualism is ‘a good thing’ if it was acquired via travel (preferably to Paris) or via formal education (preferably at Harvard) but that it is a ‘bad thing’ if it was acquired from one’s immigrant parents or grandparents.”³

Fishman made that claim more than five decades ago, but it still rings true—if not quite as loudly—today. For instance, Richard Ruíz and other scholars contend that in the United States, speaking a language other than English continues to be perceived as a problem, which they term a “language-as-problem orientation.”⁴ Perhaps because of this perception, the burgeoning multilingualism of our nation’s children is challenging our current instructional practices and even more so our educational systems. Across the country, we lack the preparation, materials, supports, or infrastructure to handle our children’s linguistic diversity. Given the multiple benefits of speaking more than one language fluently,* we should actually celebrate this diversity—and *we can*.

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*For more on the benefits of second language learning, see “Beyond a Bridge to Understanding” in the Summer 2018 issue of *American Educator*, available at www.aft.org/ae/summer2018/abbott.

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Our systems and practices are geared mostly toward monolingual English speakers. The language-as-problem perception has contributed to the spread of several counterproductive and inaccurate beliefs,⁵ such as:

- the two languages a bilingual person speaks are separate and distinct systems, as if bilingual students were two monolinguals in one;
- languages can be simply added or subtracted from the minds of bilingual speakers;
- restricting the use of the home language or only using it temporarily will transition students as quickly as possible to the dominant school language; and
- students' languages in school, if used at all, should be strictly separated by time, day, or subject.

Decades of research have shown that these beliefs are misconstrued; there are in fact cognitive, social, and economic benefits to being bilingual and biliterate.⁶

In this article, I will address the following questions that relate to our school policies and teaching practices: Do bilingual[†] children suffer from cognitive and linguistic disadvantages, or do they enjoy advantages unavailable to monolingual speakers? Is it detrimental to learning English at school if a child speaks, reads, and writes in a different language at home? What are some of the strategies teachers can use to help bilingual students and families? While across-the-board answers are impossible, I will briefly summarize relevant studies and connect them with the U.S. school context. In the end, I offer a few suggestions for classroom teachers.

Bilingualism and Cognitive Development

Is there a bilingual advantage in cognitive development? The simple answer is *yes*, *no*, and *it depends*. To date, researchers have found executive functioning to be one of the areas in which bilingual children are significantly stronger than monolingual children. *Executive functioning* refers to a variety of cognitive processes; the core includes inhibitory control of attention, updating working memory, and shifting between tasks.⁷ Inhibitory control of attention enables a child to selectively attend to the most relevant information and suppress attention to other stimuli (e.g., focusing on the teacher who is reading aloud, not the classmate who is fidgeting). Working memory refers to the brain's temporary storage and manipulation of the information necessary for such complex cognitive tasks as language comprehension, learning, and reasoning;⁸ updating working memory means constant monitoring and rapid addition or deletion of working-memory contents. Shifting between tasks is switching flexibly between tasks focusing on different properties (e.g., colors, shapes, etc.).

[†]For simplicity, I will use the term *bilingual* throughout the rest of text to refer to *more than one language*.

To date, numerous studies have compared bilingual and monolingual children and have found that bilingual children generally outperform their monolingual counterparts on inhibitory control,⁹ have better working memory,¹⁰ and perform better in shifting tasks.¹¹ Such advantages are thought to be results of bilinguals' constant need to resolve linguistic conflicts, such as the word *spring* is female in Spanish (*la primavera*) but male in French (*le printemps*). This enhances their ability to handle nonlinguistic tasks too,¹² like identifying shapes, recognizing patterns, and homing in on important features of a picture or diagram while ignoring distractors. This bilingual advantage in executive functioning is also confirmed by neuroimaging studies. For example, a recent study found that 11-month-old infants regularly exposed to two languages demonstrated significantly stronger responses in the brain areas known to be involved in executive functioning than infants in monolingual homes.¹³

However, it is also important to acknowledge that there have been studies documenting the lack of coherent evidence for a bilingual advantage in executive functioning;¹⁴ others have found that the magnitude (and therefore practical significance) of the differences varies depending on the tasks used, language pairs, and socioeconomic status.¹⁵ For instance, a study¹⁶ with bilingual and monolingual groups of children who were comparable ethnically, socially, and economically found no difference between the two groups of children on executive functioning.

In sorting out why different studies reach different conclusions, one key may be the fact that not all bilingual people are the same. It is extremely important to carefully define what we mean by *bilingual* and understand that there are quantitative (how much) and qualitative (how good) differences in children's exposure to the different languages.¹⁷ For instance, a study that did not find any difference between monolingual and bilingual groups of 24-month-olds on tasks of selective attention and inhibitory control also revealed that the bilingual toddlers' degree of balanced language usage predicted parents' rating of some measures of the toddlers' executive functioning. The researchers suggest that enhanced executive functioning in young bilingual children has to do with children actively using two languages and switching between the languages.¹⁸ Therefore, the bilingual advantage in cognition appears to be tied to specific conditions of bilingualism.

Metalinguistic Awareness

The earliest findings demonstrating a bilingual advantage came from studies on children's metalinguistic awareness.¹⁹ *Metalinguistic* means the



Research suggests that children’s phonological awareness in their native language (Spanish) is beneficial in learning to read in English.



required understanding is not about any specific language, but about language in general; it involves children’s conscious reflection on and manipulation of the properties of language.²⁰ For example, bilingual children are more likely to notice and correct sentences like “Steve and Robert is a brother” that are semantically plausible but contain errors.²¹ While early studies on bilingual children’s metalinguistic awareness focused primarily on the domain of oral language, more recently researchers have examined the roles different aspects of metalinguistic awareness play in literacy learning and particularly in learning to read.²² In learning to read, a child must realize that print represents speech and then figure out what elements of the written language represent what linguistic element. A child learning to read in two languages must realize how the mapping works differently in the two writing systems. There are two major challenges for bilingual children.

The first is that they need to know what linguistic element is represented by printed symbols in each language. In alphabetic languages such as English and Spanish, a letter is the smallest unit of the written language that represents a phoneme (phonemes are the smallest units of spoken language); therefore, children need to figure out the letter-sound correspondence at the phonemic level. Phonemic awareness is crucial in learning to read alphabetic languages. (For a detailed look at the English language and teaching children to read in English, see the article on page 4.) In non-alphabetic languages such as Chinese, children need to figure out how characters, the basic units of the writing system, are matched with syllables and morphemes (morphemes are the smallest meaningful units of language). For instance, the printed symbol 眼, pronounced as *mù*, represents the idea of “eye.” In this case, children need to understand that

a holistic character represents a syllable; syllable awareness, rather than phonemic awareness, underscores early character acquisition among native Chinese-speaking children.²³

The second challenge is that writing systems vary in transparency—that is, in how consistent their spelling-sound correspondences are. For instance, Italian and Spanish are highly consistent: one letter makes only one sound. English is a more opaque alphabetic language. Think about how many sounds the letter string *ough* represents: *although*, *bought*, *cough*, *plough*, *tough*, *through*. The Chinese writing system is considered one of the opaqueness; Chinese cannot be decoded at the level of grapheme to phoneme,²⁴ and there is a one-to-many relationship between syllables, characters, and meanings. For instance, the syllable *shì* can refer to more than 10 characters representing different meanings (morphemes), such as 市 city, 柿 persimmon, 事 issue, 式 style, 氏 surname, 饰 decoration, 势 power, 示 to demonstrate, 士 scholar, 视 vision, 试 test, 是 to be, and 世 world.²⁵ A beginning Chinese reader must holistically learn and memorize the spoken syllable, the corresponding character, and its meaning.

For anyone learning to read, understanding how print maps onto spoken language is fundamental. For children developing biliteracy, the additional challenge is that they need to figure out how their second writing system functions differently from their first before they can fully grasp the second language system.²⁶

This brings us to an essential question: Do bilingual children have stronger metalinguistic awareness that can assist them in learning to read? The answer is both *yes* and *it depends*. To date, many studies document that bilingualism boosts children’s metalinguistic awareness (phonological, morphological, syntactic, etc.) with different aspects of reading (e.g., decoding, word reading, word knowledge, and comprehension). These benefits exist across different pairs of alphabetic languages (e.g., Spanish-English, Korean-English) and orthographically contrasting languages (such as Chinese-English).

For instance, a study examined whether children’s phonemic awareness in their native language influenced English word recognition skills.²⁷ The children were first-grade Spanish speakers in a transitional bilingual education program who were identified by their teachers as nonfluent English readers. The researchers administered a battery of tasks in the two languages assessing the students’ phonological awareness and their word recognition and decoding skills. They found that Spanish phonological awareness predicted English word reading; Spanish word recognition also predicted performance on the English reading tasks. Such results suggest that children’s phonological awareness in their native language (Spanish) is beneficial in learning to read in English, and training in phonological awareness in their native language could facilitate their ability to read in English.

One important factor is linguistic distance between the two languages. English and Spanish or English and French, as cases

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in point, share large numbers of cognates, like *combustion* vs. *combustión* and *atmosphere* vs. *atmosphère*. Therefore, it is logical to assume students' lexical knowledge in their first language could be transferred to reading in a second language. A test of this hypothesis with Spanish-speaking students in grades 4 to 6 found that students' ability to understand key concepts in English was related to their ability to recognize cognate relationships.²⁸ The connection between students' Spanish vocabulary knowledge and English reading comprehension was also found to depend on students' ability to recognize cognates. Such transferred skills have also been found to facilitate children's reading comprehension as early as first grade; by second grade, cognate awareness appears to contribute significantly to reading comprehension.²⁹ A newly published study documented that cognate instruction can be used to improve students' spelling and writing in grades 3 and 4 in bilingual (Spanish-English), English-only, and English as a second language classrooms.³⁰

However, not all aspects of metalinguistic awareness facilitate reading in a second language. It depends on (1) whether the students' language skills are strong enough in their first language for them to develop a certain aspect of metalinguistic awareness, and (2) whether a particular aspect of metalinguistic awareness, developed in the first language, is useful in learning the second language.³¹ Let's take morphological awareness—the ability to understand morpheme meaning and reflect on morphemic structure of words³²—as an example. The English lexicon contains inflected, derived, and compound words like *teaches*, *teachable*, and *highlight*. Understanding what *-able* indicates will greatly help students understand the meaning of *teachable*, but also enable them to infer the meanings of other words like *drinkable*, *walkable*, or *doable*. Knowledge of and sensitivity to morphemes have been consistently found to contribute to children's vocabulary³³ and reading comprehension development in English.³⁴

Languages, however, do not always create words in the same ways. Chinese, for example, has a very productive compound morphology (i.e., it has lots of compound words, such as 黑板, *hēibǎn*, black-board, blackboard) but, due to its small number of derivational morphemes, a somewhat improvised derivational morphology (e.g., 学者, *xuézhě*, study-person, scholar). Furthermore, Chinese has no inflected words. Studies have shown that morphological awareness in Chinese contributes to native Chinese-speaking children's vocabulary acquisition³⁵ as well as reading comprehension.³⁶ For native Chinese-speaking children learning English, their morphological awareness in Chinese facilitated their understanding of morphology in English—but that facilitation was greater for compound words than for derived words, reflecting the fact that Chinese does not have a robust derivational morphology.³⁷

Looking at the full body of evidence, it seems that metalinguistic awareness is powerful in language and literacy learning,

and bilingual children enjoy the benefits of transferred metalinguistic awareness between the two languages. However, whether such transfer happens is influenced by many factors, including the linguistic distance between the languages, whether the second language requires such awareness, and the degree to which children have developed such awareness.

Bilingualism and Biliteracy for All

In recent years, many teachers and school systems have dispelled the language-as-problem perception and have embraced the many benefits of bilingualism and biliteracy.* Still, challenges regarding resources and capacity remain. One extremely pressing concern is that in diverse communities, it is impossible for teachers to understand all the languages spoken in their classrooms. What should we do to help our increasingly multilingual student body? I personally believe the dual language immersion approach should be adopted by all schools. Recent research has shown convincingly that when learning school subjects through two languages, students' academic performance is *superior* (not merely unaffected) in reading and mathematics, even though the tests are only in English.³⁸ On top of this, students in dual language programs are acquiring an additional language, along with a much more positive attitude toward multilingualism and multiculturalism.³⁹

Implementing nationwide dual language immersion programs may not be feasible at this point. However, teachers with a high percentage of English language learners in their classrooms may consider the following strategies and shifts in perspectives in order to best help their bilingual learners.

First, we should consider students' home languages and backgrounds an asset, not a liability, in learning English. Children's strong home language background can give them a boost for learning English, as the research evidence above shows.

Second, basic language proficiency in the home language is not enough. Children should be encouraged to learn academic vocabulary in their home languages; by developing this stronger conceptual background, students will have a better foundation for building their academic learning in English. Research indicates that instead of bilingual people having two language systems in their minds, they actually have a shared semantic system and



*For more on the history of bilingual education in the United States, see "Bilingual Education" in the Fall 2015 issue of *American Educator*, available at www.aft.org/ae/fall2015/goldenberg_wagner.

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shared semantic/conceptual representation for translation equivalents.⁴⁰ In the case of conceptual equivalence or near equivalence (e.g., *fraction* vs. *fracción*), vocabulary learning in a second language involves linking a word form in the second language to an already established lexical concept.⁴¹ Additionally, vocabulary knowledge itself is a manifesta-

tion of one's background knowledge;⁴² by the same token, stronger academic vocabulary indicates children's stronger academic background knowledge, which has a significant impact on their academic performance.⁴³ Therefore, encouraging students to learn as much academic vocabulary knowledge as they can in their home language will help—not hinder—their academic learning in English.

Third, teachers and families should foster students' understanding of and sensitivity to the languages they are learning analytically, rather than holistically. For example, for younger children, phoneme alliteration can be made into a game easily played at home in a non-English language; the goal would be

to strengthen children's phonemic awareness in the home language. For instance, parents and children can pick one speech sound and come up with silly sentences in their home languages, like smiling snakes sipping strawberry sodas (*Faint Frogs Feeling Feverish: And Other Terrifically Tantalizing Tongue Twisters* by Lilian Obligado is just one book with more such examples).

For older children, teachers and families can capitalize on the more comprehension-related aspects of metalinguistic awareness, such as morphological awareness, to boost children's vocabulary learning, including academic vocabulary and comprehension.⁴⁴ Parents and teachers alike can engage students in such activities. Whether it is word play among family members in the home language or more rigorous morphology instruction* in English in the classroom, students are bound to benefit from deeper understanding of the languages they are learning. Examples of simple word games that family members can play include Mad Libs, which helps children understand parts of speech, and a verbal version of charades, in which children are asked to explain a word without using the word itself.

*For examples of morphology instruction in English, visit www.readingrockets.org/blogs/shanahan-literacy/what-should-morphology-instruction-look.

Supporting Bilingualism: Resources for Teachers and Families

Colorín Colorado, www.colorincolorado.org, is a comprehensive source for research- and practice-based guidance on cultivating bilingualism and biliteracy. Through a partnership with the American Federation of Teachers and other supporters, the site offers teachers and families numerous tips, articles, book lists, classroom videos, and more. Here, we highlight links to specific resources for supporting young children as they learn academic English while also continuing to develop vocabulary, fluency, and literacy in their home language.

Cultivating Bilingualism at Home

Recent immigrants who do not speak English fluently and who may currently sense what Chan Lü's article refers to as society's "language-as-problem orientation" should nonetheless take pride in their home

language and ensure they pass it on to their children. Being bilingual is a great gift that immigrant families and schools can give to students, since speaking two or more languages has many advantages when it comes to communicating with others and securing jobs in the future. To learn about second language acquisition, as well as writing poetry in two languages and the Seal of Biliteracy initiative, visit www.colorincolorado.org/raising-bilingual-kids. Another way families can strengthen children's bilingual language development is by reading aloud in their home language. To that end, reading tip sheets in 13 languages are available at www.colorincolorado.org/reading-tip-sheets-parents. Organized by age groups ranging from babies to third-graders, the tips offer practical ways ("play word games," "take control of the televi-

sion," "be patient") for families to lay the foundation for literacy at home.

Diving into Dual Language Learning at School

To support children in developing their native language while learning academic English, check out the resources at www.colorincolorado.org/bilingual-dual-language-education. These include articles on English language learners' most valuable resource—their home language—and teaching bilingual students with disabilities; a video on native language support; and research and reports on effective dual language programs.

Accelerating Learning with Cognates

For ways to use cognates to develop comprehension in English and also take

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Last but not least, it is important for teachers and families to keep in mind that positive attitudes toward bilingualism, biliteracy, and biculturalism are essential. After all, more than half of the world's population is bilingual to some degree; being bilingual should not be viewed negatively, but as a *positive way of being*. When we adopt a language-as-resource orientation, we celebrate children's strengths, honor their identities, and are better prepared to support their integrated dual language development.



advantage of the similarities between English and Spanish when teaching both languages, visit www.colorincolorado.org/using-cognates-ells. And to watch an interview with Susan Lafond (a National Board Certified Teacher in English as a new language) on why cognates are a powerful tool in teaching academic content and vocabulary, visit www.colorincolorado.org/video/how-cognates-can-help-ells.

Playing with Words

To reinforce language learning, educators and families alike can turn to word play games that children are sure to enjoy. For fun ways to practice sounding out words, visit www.colorincolorado.org/article/playing-word-sounds-stretch-and-shorten. Riddles are also a great way for students

to really hear the sounds of words and build vocabulary and strengthen comprehension. Ideas for using riddles in school and at home are available at www.colorincolorado.org/article/playing-words-riddles. What's another engaging activity for children to practice their literacy skills? Rhyming games, of course! Ideas for guessing the next word, singing rhymes together, and rhyming around the house are available at www.colorincolorado.org/article/getting-ready-read-using-storytelling-rhymes-and-more.

Celebrating Families' Strengths

For ways to connect students' knowledge from home to their learning in school, check out the great resources focused on culturally responsive instruction at www.colorincolorado.org/culturally-responsive

resources. Videos and podcasts with experts in research and practice, such as Gloria Ladson-Billings and Larry Ferlazzo, are featured, as are books by Lisa Delpit, Sonia Nieto, and Zaretta Hammond. For an in-depth guide on supporting family literacy, particularly among Spanish-speaking families, see the toolkit at www.colorincolorado.org/guide/aft-toolkit-teachers-reaching-out-hispanic-parents-english-language-learners.

—EDITORS

As I have delineated here, there are innumerable benefits bilingual children enjoy, yet the journey may not be as easy as nor similar to what we are used to with monolingual English-speaking children. Still, it is worth considering that valuing and working with the linguistic differences that children and families bring to our classrooms is an inherent part of forming a collaborative relationship with them. Such a relationship can empower these children and families and perhaps also inspire English-speaking children and families to learn more about other languages and cultures. This collaborative stance can also enrich our school curriculum.⁴⁵ The initial costs of these efforts are slight compared with the long-term personal, educational, and societal benefits. □

Endnotes

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