



# Chapter 6

## Alternative Educational Programs for English Learners

Kathryn Lindholm-Leary, San Jose State University  
Fred Genesee, McGill University

Currently, several alternative school programs exist in California for educating English learners (ELs) that differ from English-only programs in the use of two languages (English and another language) for language, literacy, and academic instruction. These programs comprise (a) transitional bilingual, (b) developmental bilingual, and (c) two-way immersion. Those programs are the focus of this chapter. There is some discussion elsewhere in this publication on how English learners' home language is used in other program models, such as newcomer programs and sheltered instruction in the chapter by Echevarria and Short. We outline the rationale for and advantages of a dual language approach to education for English learners in California and across the country. The primary characteristics of those alternative program are described. We go on to review research that has investigated the language, literacy, academic, and other outcomes of students who have participated in dual language programs.

Finally, we briefly present research pertinent to program effectiveness, implementation issues, and learner needs in dual language programs. Some of these topics (e.g., student outcomes) have been the subject of extensive systematic research. In those cases, our discussion, conclusions, and recommendations are closely based on empirical evidence. In other cases (e.g., students with special needs), the research base is less extensive or indirect and, as a result, our discussion is necessarily more circumspect and suggestive. However, because educational professionals need to make informed decisions about program alternatives now, with or without extensive research evidence, we have included suggestions and recommendations even for issues that lack extensive empirical investigation in order to provide as much professional guidance as we can.



## Rationale and Advantages of Dual Language Education

As noted, the three program alternatives reviewed in this chapter use two languages to educate language-minority students (and language-majority students in the case of two-way immersion). Before proceeding with descriptions of these program alternatives, we discuss arguments for the use of two languages for teaching English learners. These arguments pertain to globalization, neurocognitive advantages, the home language advantage, and cultural competence.

### Globalization

Few would deny that the world is experiencing unprecedented globalization. It is evident in multiple spheres of activity: economy and business, communications, travel, culture, and immigration. Globalization has brought opportunities, advantages, and challenges. One challenge is how best to prepare present-day students in U.S. schools for life in the global village. Linguistic and cultural competence play key roles in affording students the tools they need to take advantage of the opportunities of globalization. Although English is widely recognized as the most important world language (Crystal 2003), students who speak English and other languages will have the competitive edge in the global marketplace. As well, knowing other languages in addition to English will afford California students the full range of benefits that globalization offers, including personal benefits related to international travel or communication through the Internet. In short, educational programs that afford students opportunities to acquire English and other languages and to become familiar with other cultures are better suited to offering graduates a premium in the global village (Barker 2000; *Foreign Language Framework* 2003; Committee for Economic Development 2007).

**Linguistic and cultural competence play key roles in affording students the tools they need to take advantage of the opportunities of globalization.**

### Neurocognitive Advantages

Research conducted during the past two decades has found that advanced levels of bilingual competence are associated with several significant cognitive advantages (e.g., Bialystok 2001, 2008). A bilingual advantage has been demonstrated consistently by individuals competent in completing tasks or solving problems when competing information is available. Technically speaking, these advantages include cognitive abilities related to attention, inhibition, monitoring, and switching focus of attention. Collectively these cognitive skills comprise what are referred to as *executive*



*control processes* and are located in the frontal lobe regions of the brain. Executive control processes permit the problem solver to focus attention when there is potentially conflicting information to be considered, to select relevant over irrelevant information, and to switch strategies when a solution is not forthcoming.

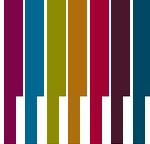
Bialystok and Martin (2004) have argued that the experience of controlling attention to two languages in order to keep them separate and use them appropriately is what enhances the development of executive control processes in bilingual people. These advantages in executive control functions are evident in childhood and in later adulthood as well. The bilingual advantage found by Bialystok is most evident in bilingual people who acquire relatively advanced levels of proficiency in two languages and use their two languages actively on a regular basis. A bilingual advantage is unlikely to occur in individuals who have taken a high school foreign-language course and have little competence in another language (e.g., Bialystok 2001; Cummins 1976, 1981).

These findings have significant implications for educators—implications that complement the economic and personal advantages that are associated with bilingual competence in a globalized world. In brief, these findings argue for bilingual forms of education as cognitive enrichment and, at the same time, argue for programs that provide substantive and continuous opportunities for students to develop bilingual competence in school so that they enjoy the cognitive advantages that high levels of bilingualism confer.

**The bilingual advantage found by Bialystok is most evident in bilingual people who acquire relatively advanced levels of proficiency in two languages and use their two languages actively on a regular basis.**

### The Home Language Advantage

Recent systematic reviews of research on the language, literacy and academic development of English learners by August and Shanahan (2006) and Genesee and others (2006), among others, have revealed that there are important developmental relationships between English learners' home language competencies and their academic and literacy development in English (see also Greene 1998; MacSwan et al. 2007; Rolstad, Mahoney, and Glass 2005; Slavin and Cheung 2005; Willig 1985). More specifically, English learners with advanced levels of competence in certain aspects of the home language demonstrate superior achievement in English literacy compared with English learners who lack or have lower levels of competence in these home language abilities. Moreover, English learners with more advanced levels of bilingual competence (in English and the home language) attain significantly higher levels of academic achievement than do English learners with lower levels of bilingual competence (Lindholm-Leary and Borsato 2006).



Phonological awareness can be used as an example. It has been reported in numerous studies that English learners who possess good phonological awareness skills in the home language acquire phonological awareness skills in English more easily and faster and, in turn, acquire superior word decoding skills in English in comparison to English learners with less-developed phonological awareness skills in the home language (see Geva and Genesee 2006 and Riches and Genesee 2006 for reviews of this research). These first- and second-language relationships have been found for language-related skills (such as depth and breadth of vocabulary), literacy-related skills (such as knowledge of the alphabet and phonological awareness), and language-processing strategies (such as inferring the meaning of new words or the use of reading-comprehension strategies). These findings are evident in English learners who are instructed in English-only classrooms as well as in English learners in bilingual programs, indicating that these linguistic interdependencies operate independently of the language of instruction. Moreover, these effects are most pronounced when English learners acquire competence in English reading and writing—fundamental skills for educational success.

**In short, English learners use their existing home language skills to “bootstrap” into English literacy.**

These findings are important educationally because they indicate that English learners, like all students, are resourceful and use all their existing language and cognitive resources when learning to read, write, and learn new academic skills in English. Whereas monolingual English-speaking students have resources only in English, English learners have resources linked to the home language as well as those they are acquiring in English. In short, English learners use their existing home language skills to “bootstrap” into English literacy. As their knowledge of English grows, English learners have less need to draw on home language skills to fill the gaps. Dual language programs have the educational advantage in that they systematically use English learners’ home language to scaffold the acquisition of English literacy and thus take advantage of English learners’ existing language abilities. To ignore these cross-linguistic relationships risks squandering young English learners’ most valuable learning assets as they face the challenges of learning literacy and other academic skills in English.

### **Schooling and Cultural Competence**

Schooling involves more than reading, writing, and arithmetic, as important as these are. Schools are also important for socializing students to broader sociocultural values and norms. Among the sociocultural goals of public education in California

are appreciation and understanding of differences among fellow students and members of the community at large. California is one of the most diverse states in the U.S. and has historically valued and promoted diversity with respect to language and culture in its population. In the globalized world that we live in, the acculturation role of schooling takes on added significance because the range of diversity that California students face is itself global, extending beyond their immediate neighborhood to include peoples from all corners of the world. Likewise, the consequences of intolerance and ignorance of diversity are equally global in magnitude.

Dual language programs, in which students are instructed through two languages and sometimes with members of both language groups working together (e.g., two-way immersion), provide many conditions that are essential for the reduction of prejudice and discrimination. These programs also provide students with communication skills and cultural awareness that facilitate intergroup contact and appreciation (see Genesee and Gándara 1999 for a detailed discussion). These possibilities are most likely in two-way immersion programs that include students from both language groups since they provide opportunities for sustained, personalized contact with members of the other group in a supportive, structured environment. Also, direct contact outside school with members of the other group (e.g., Spanish-speaking in the case of English-speaking students in two-way immersion) is afforded once students' language proficiency is sufficiently functional to engage in such contact.

Dual language programs offer another cultural advantage to language-minority students in California. For children from the majority language group, there is, generally speaking, a good match between the cultural norms of the home and of the school. However, for children from minority-language groups, there is often a poor match because what is considered appropriate in minority-language homes may be inappropriate or awkward in school (Greenfield, Quiroz, and Raeff 2000). A good example of this difference in American homes is the norms surrounding children's talk with adults. In mainstream middle-class American families, children are encouraged and expected to initiate conversations with adults and to demonstrate individually what they know and want (cf. Rogoff 2003). Moreover, teachers take those kinds of behaviors as signs that students are engaged and focused. This expectation contrasts sharply with the cultural norms of some groups that are not

**Dual language programs, in which students are instructed through two languages and sometimes with members of both language groups working together, provide many conditions that are essential for the reduction of prejudice and discrimination.**



European in origin. Children from many other cultures are socialized to not initiate conversations with adults (Greenfield, Quiroz, and Raeff 2000), to not look directly at adults when they talk to them (Whatley 1981), and to work together with their peers rather than as individuals (Au and Jordan 1981; Philips 1983). Those kinds of behaviors could be interpreted as signs of reticence, indifference, or even of learning problems by classroom teachers working with a mainstream point of view because they run counter to cultural expectations associated with mainstream socialization patterns. Such misattributions may be less likely to happen in dual language programs where teachers are sensitive to the cultural norms of their minority-language students.

Finally, all students possess what Luis Moll has referred to as “funds of knowledge” that shape their behavior and learning in school (Gonzalez, Moll, and Amanti 2005). Funds of knowledge are acquired in the home and community before children come to school and include the skills, knowledge, expectations, and understandings that children have about the world and their place in it. The funds of knowledge that mainstream students possess are used by mainstream classroom teachers as resources for linking new knowledge and skills to students’ prior learning and life experiences (e.g., Snow, Burns, and Griffin 1998). This is done, for example, when teachers preview new learning objectives with their students by encouraging students to discuss and think about prior knowledge and experiences that are related to the new learning objectives. Students from different cultural backgrounds have different funds of knowledge that have grown out of their unique cultural experiences. Dual language programs that teach through students’ home language as well as English are better prepared to accommodate students with diverse sociocultural backgrounds because dual language teachers usually have had appropriate training about the importance of these issues (Howard et al. 2007; Lindholm-Leary 2001). Moreover, dual language programs usually include explicit objectives to enhance students’ understanding and appreciation of cultural diversity since this is an integral part of acquiring bilingual competence.

## Program Characteristics

Each type of dual language program, including the primary goals, theoretical rationale, and intended student populations, is described in this section. For more detailed descriptions of these models, along with other dual language program models, see Genesee 1999. This information is also summarized in Table 6.1, along with information about grade levels served, appropriate teacher qualifications, the role of mainstream teachers, and the nature of instructional materials used in each type of program.

**Table 6.1. Summary of Alternative Educational Programs for English Learners**

Components	Transitional Bilingual	Developmental Bilingual	Two-Way Immersion
<b>Language goals</b>	Transition to English only	Bilingualism	Bilingualism
<b>Cultural goals</b>	Integrate into mainstream American culture	Integrate into mainstream American culture and maintain home/heritage culture	Maintain/integrate into mainstream American culture and appreciate other culture
<b>Academic goals</b>	District goals and standards	District goals and standards	District goals and standards
<b>Student characteristics</b>	<ul style="list-style-type: none"> <li>⊙ No/limited English</li> <li>⊙ Same home language</li> <li>⊙ Mixed cultural background</li> </ul>	<ul style="list-style-type: none"> <li>⊙ No/limited English</li> <li>⊙ Same home language</li> <li>⊙ Mixed culture background</li> </ul>	Both native speakers of English and students with no/limited English; different cultural backgrounds
<b>Grade levels served</b>	Primary and elementary	Elementary	K–8; preferably K–12
<b>Entry levels</b>	K, 1, 2	K, 1, 2	K, 1
<b>Length of student participation</b>	2–4 years	<ul style="list-style-type: none"> <li>• Usually 6 years (+K)</li> <li>• Preferably 12 years (+K)</li> </ul>	<ul style="list-style-type: none"> <li>• Usually 6 years (+K)</li> <li>• Preferably 12 years (+K)</li> </ul>
<b>Role of mainstream teachers</b>	Mainstream teachers must have training in sheltered instruction.	Stand-alone program with its own specially trained teachers	Mainstream teachers with special training
<b>Teacher qualifications</b>	<ul style="list-style-type: none"> <li>⊙ Bilingual certificate</li> </ul>	<ul style="list-style-type: none"> <li>⊙ Bilingual-multicultural certificate</li> <li>⊙ Bilingual proficiency</li> </ul>	<ul style="list-style-type: none"> <li>⊙ Bilingual/immersion certification</li> <li>⊙ Bilingual proficiency</li> <li>⊙ Multicultural training</li> </ul>
<b>Instructional materials, texts, visual aids, etc.</b>	In the home language of students and in English; English materials adapted to language levels	In the home language of students and in English; English materials adapted to language levels	In the minority language and in English, as required by curriculum of study



## Transitional Bilingual Education

Transitional bilingual education (TBE), also sometimes referred to as early-exit bilingual education, has historically been a common form of dual language education for English learners in the United States (Genesee 1999).

TBE provides academic instruction in English learners' home language as they learn English. The typical TBE program begins in kindergarten or grade one and provides initial instruction in literacy and academic content areas through the student's home language along with instruction in oral English and nonacademic subjects, such as art, music, and physical education.

Teaching English learners in all-English classes as soon as they begin schooling, it is argued, impedes their academic development because they cannot speak or understand English sufficiently to benefit from academic instruction through English. Thus, learners are put at academic risk. TBE is designed to avoid this pitfall. As students acquire proficiency in oral English, the language in which academic subjects are taught gradually shifts from the students' home language to English. Content instruction through English is often provided in individualized and specially designed units, often using sheltered instructional techniques (see Echevarria and Short, this publication). The transition to English instruction typically starts off with math, followed by reading and writing, then science, and finally social studies. Once they acquire sufficient English proficiency, TBE students make the transition to mainstream classes where all academic instruction is presented in English; often this occurs at grade three. In contrast to developmental bilingual education and two-way immersion programs, to be described shortly, TBE does not aim for full bilingualism. It uses the students' home language to ensure grade-level mastery of academic content but only until such time as students can make a full transition to all-English instruction, typically defined in California as one to two years (Genesee 1999).

**As students acquire proficiency in oral English, the language in which academic subjects are taught gradually shifts from the students' home language to English.**

The primary goals of TBE are to:

- ⦿ Ensure mastery of grade-appropriate academic skills and knowledge.
- ⦿ Facilitate and speed up the process of learning English.

Early instruction in students' home language serves both goals. The fact that instruction through the home language supports the acquisition of English sounds counter-intuitive to some, but the rationale is as follows. First, teaching academic content to English learners through their home language, while they are learning to speak and comprehend English, helps them to acquire academic knowledge at the same pace as their native English-speaking counterparts because they are learning in a

language they already know. Second, teaching English learners academic subjects initially in their home language also provides them with knowledge and experience that *facilitates* learning English in subsequent grade levels; for example, it is easier for English learners to understand and learn English language skills related to the study of planets if they already know something about planets. Third, the easiest language for students to learn to read and write first is the one they already know. Rather than delay reading and writing instruction until English learners can speak and comprehend English, reading and writing instruction can begin immediately if the students' home language is used.

Moreover, many literacy skills “transfer” from one language to another (August and Shanahan 2006; Genesee et al. 2006). Thus, if English learners learn to read and write reasonably well in their home language and learn to speak and comprehend English well, then it is relatively easy for them to learn to read and write in English. There is much evidence to support this approach (August and Shanahan 2006; Genesee et al. 2006), especially for languages that use the same script (e.g., Spanish and English). Fourth, it is argued that parents play a critical supporting role in their child's education. Teaching English learners in their home language increases the likelihood that their parents (who often speak little or no English) will be better able to support their children's academic development; for example, by reading with their children, supervising their homework, communicating with the teacher, and so on.

### Developmental Bilingual Education

Developmental bilingual education (DBE), also referred to as *maintenance bilingual education* and *late-exit bilingual education*, is an enrichment form of dual language education that uses English learners' home language and English for literacy and academic instruction throughout the elementary grade levels and, wherever possible, high school as well. In comparison to two-way immersion programs (discussed next) in which students from language-minority backgrounds are schooled along with students from the majority-language group using both groups' languages, DBE is a kind of one-way program that includes only or primarily language-minority students. Although DBE programs are intended to serve speakers of one minority language in the same classroom, diversity among students is not uncommon; a single class or program might include Hispanic students who were born and raised in the U.S. but speak virtually no English when they first enroll, Hispanic students who are already proficiently bilingual, and recent Spanish-speaking immigrants from Mexico who are just beginning to acquire English.

Most current DBE programs begin in kindergarten or grade one and add one grade level each year. They teach regular academic subjects through English and the



students' native language for as many grade levels as the school district can and will support, ideally until the end of high school. DBE programs are offered in a variety of minority languages, including Chinese, Vietnamese, Russian, Japanese, French, German, and Spanish. A listing of DBE programs is contained in the Center for Applied Linguistics Directory of Bilingual Programs. The vast majority of DBE programs include Spanish and English (Center for Applied Linguistics 2008).

DBE programs aim to promote high levels of academic achievement in all curricular areas and full proficiency in both the students' home language and English for academic purposes. They emphasize the cognitive and academic richness of exploring knowledge across academic domains from multiple cultural perspectives using both languages.

**DBE programs aim to promote high levels of academic achievement in all curricular areas and full proficiency in both the students' home language and English for academic purposes.**

DBE programs provide English learners with academic instruction in their home language as they learn English. Sheltered instructional techniques are the preferred method of delivering academic instruction (see Echevarria and Short, this publication). In this way, DBE aims for grade-level achievement in academic domains by the end of schooling. Indeed, well-implemented DBE leads to high academic achievement for English learners (Lindholm-Leary and Borsato 2006; Riches and Genesee 2006; Thomas and Collier 2002). DBE takes an enriched approach to educating English learners in that it promotes full proficiency in all aspects of the students' home language in addition to full proficiency in all aspects of English. As a result, it is viewed as an additive form of bilingual education (Cloud, Genesee, and Hamayan 2000).

The theoretical rationale for DBE is built on research in diverse domains, including linguistics, social sciences, and school effectiveness (e.g., Lindholm-Leary 2001). Accelerated learning, a concept from research on school effectiveness, is critical to understanding the learning situation of any group of potentially at-risk students. As a group, English learners generally score relatively low on tests related to all areas of the curriculum administered in English (cf. Abedi 2003). If they are to catch up to native English-speaking students who are advancing in achievement each year, they must make **more** academic progress per year than English-speaking students. Moreover, they must maintain such accelerated progress for several consecutive years in order to eventually close the achievement gap, which can be as much as 1.5 national standard deviation units. In a well-implemented DBE program, academic growth is accelerated through cognitively challenging academic work in the students' home language along with meaningful academic content taught through English. As



students demonstrate that they have mastered grade-level curriculum material in their home language, they also close the achievement gap in English. With time (four to seven years), they are often able to demonstrate grade-level knowledge in English as well. DBE students in effective programs can outperform the average monolingual English-speaking group on standardized tests across the curriculum (Lindholm-Leary and Borsato 2006; Thomas and Collier 2002).

Research on language acquisition in school contexts also constitutes part of the theoretical base for DBE. It is widely believed that school programs that integrate second-language and content instruction are generally effective for promoting second-language proficiency (Genesee 1994) especially when accompanied by explicit and direct instruction of aspects of the second language that are difficult to acquire (Lyster 2007). Furthermore, developing students' home language so that it is commensurate with their cognitive development throughout the school years is crucial to academic success (Lindholm-Leary and Borsato 2006). Acquiring the second language in an additive context—in which the first language is not lost but promoted—leads to uninterrupted cognitive development and, thus, increased academic achievement (Lindholm-Leary and Borsato 2006).

### Two-Way Immersion Education

Two-way immersion programs (also known as *two-way bilingual education* and *dual language immersion*) have been widely implemented in schools and districts that seek to provide educational opportunities for all students to become bilingual (Center for Applied Linguistics 2008; Howard and Christian 2002). Two-way immersion programs provide integrated language and academic instruction for native speakers of English and native speakers of another language with the goals of high academic achievement, first- and second-language proficiency, and cross-cultural understanding. In two-way immersion programs, language learning is integrated with content instruction, as in the other program alternatives reviewed in this chapter. Academic subjects are taught to all students through both English and the other language, although the same subject is usually not taught in both languages in the same year. As students and teachers interact socially and work together to perform academic tasks, the students' language abilities are developed along with their knowledge of academic subject matter. Most programs start in kindergarten or first grade and continue until the end of elementary school or into middle and high school. Although there is much variation with certain program features, there are also some important core similarities among programs (Genesee 1999).

- ⦿ There are usually approximately 50 percent English-only speakers and 50 percent native speakers of the other language (or no fewer than a third of either group).

- 
- By including students from both language groups, two-way immersion programs give students the opportunity to be both first-language models and second-language learners.
  - Academic instruction takes place through both languages, with the non-English language being used at least 50 percent of the time. There are two program alternatives, one (termed 50/50) in which both languages are used throughout the grades for 50 percent of the instructional day. In the other program alternative, called 90/10, the non-English language is used for 90 percent of the instructional day during kindergarten through grade one; after that, more English is added at each grade level until grade four or five, where the proportion is closer to 50/50.
  - Two-way immersion creates an additive bilingual environment for all students since the primary languages of both groups of students are developed at the same time as their second languages are developed.

The rationale for two-way immersion is based on theories and research findings concerning both first- and second-language acquisition. First, and as already noted, bilingual education research indicates that academic knowledge and skills acquired through one language pave the way for acquisition of related knowledge and skills taught through the medium of another language. When instruction through the home language is provided to language-minority students along with balanced second-language support, those students attain higher levels of academic achievement and literacy in English than if they had been taught only in English (August and Shanahan 2006; Lindholm-Leary and Borsato 2006).

Second, research indicates that English is best acquired by language-minority students with limited or no proficiency in English after home-language skills are fully established. Specifically, strong oral and literacy skills developed in the home language provide a solid basis for the acquisition of literacy and other academic language skills in English (August and Shanahan 2006; Genesee et al. 2006). Moreover, common literacy-related skills that underlie the acquisition and use of both languages transfer from the home language to the second language and, thereby, facilitate English language acquisition.

Third, immersion programs for language-majority students (those who are native speakers of English) enable them to develop advanced levels of proficiency in the second language without compromising their academic achievement or home-language development (Genesee 2004).

Finally, many researchers and educators believe that language is learned best by all students when it is the medium of instruction rather than the exclusive focus of instruction (e.g., Lyster 2007). In two-way immersion settings, students learn language

while exploring and learning academic content because there is a real need to communicate.

More generally, the rationale for two-way immersion grows out of sociocultural theory that maintains that learning occurs through social interaction (Lantolf 2005; Vygotsky 1978). More specifically, the integration of native speakers of English and native speakers of another language facilitates second-language acquisition since it promotes authentic, meaningful interaction with native speakers. Because the students in two-way immersion programs are all native speakers of one of the two second languages being promoted, it follows that native-language models are available in the classroom for both groups of second-language learners.

Social science research also provides a strong theoretical rationale for two-way immersion programs in culturally and linguistically diverse settings. Students who study in socioculturally supportive classrooms that build on the knowledge base they bring from their homes and communities are able to accelerate their own academic growth (González, Moll, and Amanti 2005). The differential status enjoyed by language-minority and -majority students and particularly the low status of language-minority students can be transformed in a two-way immersion program where all students are respected and valued as equal partners in the learning process and where all are given access to the same resources as all other schools. Furthermore, in regions of the U.S. that provide economic rewards for graduates who are bilingual in English and another language, the economic advantages of bilingualism in the marketplace may serve to enhance the status and achievement of students who are bilingual.

**... the integration of native speakers of English and native speakers of another language facilitates second-language acquisition since it promotes authentic, meaningful interaction with native speakers.**

## **Student Achievement and Program Outcomes**

The achievement of English learners has been of considerable interest to educators, policymakers, and families. In this section, we examine the achievement of English learners in terms of oral language proficiency, content area achievement, and attitudes; we also review research that examines literacy outcomes of English learners in alternative programs. A more extensive and in-depth review of research on the acquisition of literacy skills in English by English learners is presented in the chapter by August and Shanahan, this

**The achievement of English learners has been of considerable interest to educators, policymakers, and families.**



publication (see also August and Shanahan 2006 and Genesee et al. 2006 for recent comprehensive reviews). Along the way, we delve into some important educational and policy issues concerning the effectiveness of different program types for English learners, the question of the amount of English in the instructional day that is needed for learners to achieve grade-level norms, and how well students achieve in alternative dual language programs.

## Oral Language Development

Oral language proficiency is critical for the general educational and academic success of English learners. The rate at which English learners achieve advanced levels of oral language proficiency in English is of interest to policymakers and lawmakers because it influences the amount of time English learners should receive federally funded services. Of course, the oral language development of English learners is of considerable interest to educators so that appropriate curriculum can be developed to facilitate their language and content learning and so that instruction can be tailored to the needs of English learners at different proficiency levels (see Snow and Katz as well as Dutro and Kinsella, this publication). Oral language development of English learners is important to parents, as parents want to be sure that their children become proficient in English; but many parents also want their children to maintain proficiency in the home language (Lindholm-Leary 2001; Ramos 2007; Shannon and Milian 2002).

**Oral language proficiency is critical for the general educational and academic success of English learners.**

Whereas in this book there has been a primary focus on the English language development of English learners, we address, to the extent possible, the development of both languages. It is important in these discussions to recognize that English learners may be at different stages of bilingualism, including full proficiency in two or more languages, full proficiency in the primary language and limited proficiency in English, limited proficiency in both the primary language and English, and even proficiency in English and limited proficiency in the primary language.

In this section, we address issues that are likely to be most critical to educators, researchers, and parents; that is, research on the development of proficiency in both the first and second languages and how long it takes for English learners to become proficient in English.

**Research on the L1 and L2 development of English learners.** To help readers better understand the English language development of English learners, we briefly review research on second-language learners in general and consider what it means to be



proficient in English or a second language. First, it is important to distinguish the differences in the process of acquisition between monolingual students and that of second-language learners. We know that all normally developing children readily acquire their first language by the time they enter school (MacSwan 2000); that is, they have acquired the vocabulary, grammar, pronunciation, and speech styles that are appropriate for their speech community. However, even normally developing monolingual English speakers entering kindergarten continue to develop more complex vocabulary and syntactic skills in school, and they exhibit normal variations in their acquisition of various linguistic structures and sounds (Hoff and Shatz 2007; Maratsos 2000).

Children who grow up learning two languages simultaneously are called “simultaneous bilinguals” in the research literature; in California, they are referred to as I-FEPs (initially fluent English proficient). We know from research on these children that, given sufficient exposure in both languages, their language development in both languages is similar to that of monolinguals in that they typically follow the same stages in their acquisition of syntactic rules and structures as monolingual children do in each language (e.g., Baker 2006; Gathercole 2002a; Genesee, Paradis, and Crago 2004; Lindholm 1980, 1987). We also know that simultaneous bilingual children tend to mix languages, or code-switch, and that this is grammatical with respect to both languages and often serves social and communicative functions (e.g., to communicate with other bilinguals or to assert one’s dual language identity) (Genesee 2002). In short, it is now well understood that bilingual code-switching is not evidence of either language or cognitive confusion (e.g., Baker 2006; Genesee, Boivin, and Nicoladis 1996; Lindholm 1980; Romaine 1995).

**It is now well understood that bilingual code-switching is not evidence of either language or cognitive confusion.**

Children who have acquired one language before school age and acquire an additional language in school are usually called *second-language learners* or *successive bilinguals* in the research literature (e.g., Baker 2006), although educators often refer to these students as English learners. They are even often referred to as *bilinguals* even though they may have minimal competence in their second language.

Research on second-language learners debunks the myth that children learn a second language easily and quickly (e.g., MacSwan and Pray 2005; Paradis 2005). Second-language learning is a challenging and lengthy process especially when it calls for the acquisition of academic language and not simply conversational language skills. In fact, research has shown that second-language learning in school contexts is not always easier for young children entering school than for adolescents or adults



(Genesee and Geva 2006). As MacSwan and Pray (2005) point out, second-language learners, unlike their school-age native peers, “have developed only partial knowledge of the structure of their target language [English], and exhibit substantial errors associated with tense, case, grammatical agreement, word order, pronunciation, and other aspects of language structure” (p. 656). However, Gathercole (2002a) has shown that while second-grade English learners in two-way programs may lag behind their monolingual English-speaking peers in developing certain grammatical structures such as mass/count distinctions, the gap disappears by fifth grade and there is no difference between the bilingual English learners and their monolingual English-speaking peers.

Saunders and O’Brien (2006) note, in a review of research on the oral language development of English learners, that with increased oral proficiency in English, English learners:

- ⊙ Use more English, which is associated, in turn, with subsequent gains in oral English proficiency.
- ⊙ Interact more frequently with English-only students, which provides more opportunity to use English.
- ⊙ Use more complex language-learning strategies, particularly strategies that enable them to interact with others and monitor their own and others’ language use.
- ⊙ Display a wider range of language skills, including skills associated with academic uses of language, such as higher-level question forms and definitional skills.

There is very little research on English learners’ proficiency in their native language since most research in the U.S. on the development of languages other than English has examined foreign language learning. The scant research that has been done on English learners’ native-language proficiency pertains to Spanish and is mostly limited to teacher ratings and results on standardized language tests. Nonetheless, the available research shows that developmental bilingual and two-way programs promote relatively high levels of Spanish proficiency (August and Hakuta 1997; Escamilla and Medina 1993; Gathercole 2002b; Howard and Christian 1997; Howard, Christian, and Genesee 2004; Howard and Sugarman 2007; Lindholm-Leary 2001; Lindholm-Leary and Howard 2008; Ramirez 1992; Willig 1985). It has also been found that adolescent English learners who have participated in two-way programs for six to eight years think their Spanish skills are highly functional and, in particular, that they have the Spanish skills they need to participate in a variety of classroom and social exchanges (Lindholm-Leary 2003; Lindholm-Leary and Ferrante 2005).

Finally, Gathermore (2002b) has pointed out that by fifth grade, English learners in two-way programs show significantly greater proficiency in certain Spanish grammatical structures (e.g., gender distinctions) over English learners in English mainstream



programs, even when those learners come from homes in which Spanish is spoken. This research is important in demonstrating the significant impact that dual language programs serve in promoting both English and Spanish language proficiencies.

***Length of time to become proficient in English.*** A number of studies on the oral language development of English learners indicate that they typically require a minimum of two to five years to achieve advanced proficiency in oral English (Collier 1989; Hakuta, Butler, and Witt 2000; Saunders and O'Brien 2006; Thomas and Collier 2002), regardless of whether they participate in a bilingual, English mainstream, or structured English immersion program (Saunders and O'Brien 2006), although MacSwan and Pray (2005) found that students in bilingual programs acquired English as fast or faster than students in all-English programs. Those studies have examined proficiency in terms of students' speaking, listening comprehension, reading, and writing skills.

One way in which researchers have studied this issue is by examining reclassification rates of English learners; that is, how long it takes them to be reclassified "fully English proficient" if they had been previously designated "limited English proficient." The final report of the American Institutes for Research evaluation study of the implementation of Proposition 227 (Parrish et al. 2006) summarizes annual reclassification rates<sup>1</sup> of English learners from 1994-95 to 2004-05 in California. This study used data from the California English Language Development Test (CELDT), which includes measures of both oral (speaking, listening) and written (reading, writing) language skills. The authors report that "the overall redesignation rate has increased gradually over the past decade . . . with the most recent data showing a rate of 8.9 percent for 2004-2005" (p. I-19). The authors estimated the "current probability of an EL being redesignated to fluent English proficient status *after 10 years* in California to be less than 40 percent" (p. III-1). They go on to state: "we estimate that 75 percent of EL students are not redesignated [as fluent English proficient] *after five years of schooling*" (p. III-33). Their reclassification figure of only 25 percent is close to the figure reported by Grissom (2004), who found that only 30 percent of English learners were reclassified within five years.

Data from two-way programs are more optimistic. Lindholm-Leary (2008) reported that the percentage of students in two two-way 90/10 schools and one 60/40 dual language school that had been reclassified or met reclassification criteria<sup>1</sup> using the CELDT was 32 percent in grade five, 52 percent in grade six, and 72 percent in grade seven.

---

1. Reclassification usually occurs when an English learner reaches Early Advanced or Advanced on the CELDT and achieves at least Basic on the California Standards Test in English-language arts. There are other considerations as well, but these are the primary ones.



In a current review of research on students in two-way programs, Lindholm-Leary and Howard (2008) report that almost all English learners in two-way programs were rated as orally proficient in English, particularly by the upper elementary grade levels. Similar results were reported by Howard and Sugarman (2007) in their study of three two-way schools. In both 90/10 and 50/50 two-way programs, most English learners were rated by various oral proficiency measures as proficient in English by fourth grade. Those results were based on several large-scale studies of various two-way programs in different regions of the U.S. Moreover, these results were obtained whether they were based on cross-sectional or longitudinal studies and regardless of the language measures used (e.g., Language Assessment Scale, Bilingual Syntax Measure, Student Oral Language Observation Matrix, Student Oral Proficiency Assessment, Foreign Language Oral Skills Evaluation Matrix). However, most of these measures were limited to oral proficiency (speaking, listening) and not proficiency in written language (reading, writing).

***Level of proficiency in English.*** Research that has examined the development of oral proficiency in a second language by English learner and foreign-language students has consistently shown that improvement from beginning to middle levels of proficiency is relatively rapid, but progress from middle to upper levels of proficiency is much slower (e.g., Hakuta, Butler, and Witt 2000; Howard, Christian, and Genesee 2004; Lindholm-Leary 2001; Medina and Escamilla 1992; Thomas and Collier 2002; Weslander and Stephany 1983; see Saunders and O'Brien 2006, for a review). The American Institutes for Research evaluation study of the implementation of Proposition 227 reports data that are consistent with this finding (Parrish et al. 2006). In 2003-04, only 11 percent of K-12 English learners were rated Advanced, 32 percent were rated Early Advanced, 36 percent Intermediate, and 22 percent as Beginning or Early Intermediate in oral proficiency on the CELDT. Even those data on students who were rated Early Advanced or Advanced may be artificially high because there was an overrepresentation of students in grades nine through twelve in the entire sample (Parrish et al. 2006; Rumberger and Gándara 2005).

**Research . . . has consistently shown that improvement from beginning to middle levels of proficiency is relatively rapid, but progress from middle to upper levels of proficiency is much slower.**

**Summary.** Despite the obvious significance of proficiency in oral English in theory, practice, and policy, there is a scarcity of empirical research on this topic (see Saunders and O'Brien 2006). There is even less empirical evidence on the English learners' acquisition and use of specific linguistic structures (e.g., verbs, pronouns, causal connectors) and sociolinguistic skills, unlike the considerable documentation



of second-language development provided by immersion researchers (see Fortune and Tedick 2008, for a review of this research). In addition, there is little research on how oral language proficiency is related to English learners' overall academic success, although we know that it is (Genesee et al. 2006). It is clear that oral English proficiency of an academic nature correlates positively with English reading achievement (Escamilla et al. 2005; Genesee et al. 2005, 2006; Lindholm-Leary 2001), and oral Spanish proficiency is associated with Spanish reading achievement (Genesee et al. 2005, 2006; Lindholm-Leary 2001; Miller et al. 2006). These gaps in research are serious because it means that there is little empirical evidence on which to plan appropriate instruction in oral language development for English learners (see chapters by Snow and Katz and by Dutro and Kinsella, this publication, for further information on ELD instruction).

### Literacy Development

It is important to clarify what literacy development entails for English learners in English-only and dual language programs. English learners in English-only settings are exposed to literacy only in English, whereas English learner and English-proficient students in dual language settings are exposed to literacy in English and another language. This is an important distinction for two reasons. First, most curricula are developed for only one language and do not provide bridges between the two languages. Second, when students are tested in each language separately, the results may not reflect what they know in both languages, which, in fact, may be greater than the knowledge they possess in each language. This is, of course, true in relation to any academic testing (Solano-Flores and Trumbull 2003; Valdés and Figueroa 1994). Research on literacy development in English learners has typically focused on achievement outcomes assessed by tests of various literacy skills in English. There is also, fortunately, interesting research on the relationships between literacy development and oral proficiency and on literacy skills across languages, and that research is what we will examine next (see chapter by August and Shanahan, this publication, for a more complete discussion of English literacy development in English learners.)

***Research on literacy and biliteracy development.*** Research on English literacy development in English learners indicates that it is similar in some important and fundamental respects to the acquisition of literacy skills in English for English-only students even though it is a first language for English-only students and a second language for English learners. More specifically, both types of literacy development are influenced by learners' oral language skills, by phonological processing abilities, and by metacognitive skills linked to reading (August and Shanahan, this publication; Garcia 1998). However, the acquisition of English literacy is more complex in



English learners than it is in native English-speaking students. A primary reason is the influence of English learners' first language on their acquisition of English reading and writing skills; this difference will be discussed shortly.

As in English literacy development for English-only students, some minimum level of oral proficiency in English is necessary for English literacy development in English learners, and students with well-developed oral English skills achieve greater success in English reading than students with less well-developed skills in oral English in the long run (Miller et al. 2006; Reese et al. 2000). Oral proficiency in English appears to play a minor role in the early stages of reading acquisition, when students are learning to decode. In this stage, it is skills that are directly related to word-reading that are important. Oral proficiency in English is much more important in later stages of English reading acquisition, when reading comprehension becomes important (August and Shanahan 2006). Diversity and depth of vocabulary knowledge in English (Miller et al. 2006; Perez 1981) and understanding of underlying story structure and strategies for constructing meaning from text are also important at this later stage (Goldstein, Harris, and Klein 1993; Miller et al. 2006). These processes and factors are similarly important in learning to read English whether as a first or second language.

At the same time, there are important differences between learning to read English as a first and as a second language (August and Shanahan 2006; Genesee et al. 2006). These differences are due primarily to cross-linguistic influences. For example, and in particular, English learners' phonological awareness skills in their native language correlate significantly and positively with their acquisition of phonological awareness skills in English, which, in turn, are significantly correlated with word-decoding skills in English. This means that students with well-developed phonological awareness and word-decoding skills in their first language acquire phonological awareness and decoding skills in English more readily than English learners with poorly developed skills in the native language. Cross-language influences are most evident during the early stages of second-language literacy development and become less evident, and arguably less necessary, later as English learners acquire more advanced skills in English. This makes sense since English learners who are in the early stages of literacy development and lack resources in English but have analogous skills in the first language can "bootstrap" themselves into English literacy by drawing on reading-related primary language skills (Riches and Genesee 2006).

Evidence of cross-language influences is also reported in studies that have examined the metacognitive strategies used by English learners during the performance of complex first- and second-language literacy tasks. These studies report that successful English learner readers/writers employ effective strategies (such as drawing



inferences, the use of context and prior knowledge, and monitoring of comprehension) to comprehend text in English and that they use these strategies during both first- and second-language literacy tasks. The strategies resemble those used by successful English-only readers/writers (Padron and Waxman 1988; Jimenez, Garcia, and Pearson 1996). Successful English learner readers/writers also view reading and writing in English and the home language as similar activities with language-specific differences. At the same time, they are able to deploy a variety of effective bilingual strategies, such as searching for first- and second-language cognates, judicious translation, or use of prior knowledge developed in the first language (Jiménez et al. 1996), suggesting that English learners have a unique bilingual reservoir of cross-language skills to draw on when engaged in second-language literacy tasks.

**Successful English learner readers/writers also view reading and writing in English and the home language as similar activities with language-specific differences.**

In contrast, less-successful English learner readers view reading in the first and second language as separate abilities and, in fact, see the first language as a source of confusion. That unsuccessful English learner readers/writers view first- and second-language reading in these ways suggests that they do not develop an understanding of the commonalities in first- and second-language literacy and, as a result, are unable to draw on useful connections between their two languages to acquire reading and writing skills in English. Jimenez (2000) suggests that unsuccessful English learner readers may need explicit instruction to learn about similarities between their languages (with respect to sound-letter correspondences or cognate vocabulary, for example) if they are to benefit from strategies based on the first language (see also Langer et al. 1990).

In most cases, cross-language influences are facilitative so that English learners with emergent first-language literacy skills, prior experiences with first-language literacy in the home, knowledge of cognate vocabulary, and well-developed metacognitive strategies for figuring out meaning from text in the first language, for example, acquire reading skills in English more readily than English learners who lack these first-language skills. In other cases, cross-linguistic influences may appear to have “negative” influences, for example, when Spanish-speaking English learners erroneously attribute the Spanish meaning to false cognates in English or pronounce words written in English using Spanish letter-sound correspondences. Even in these cases, however, it is important to keep in mind that these effects reflect an active and productive strategy on the part of English learners to draw on relevant, albeit sometimes inappropriate, knowledge about the first language when they are engaged in English reading and writing tasks.



In sum, research indicates that learning to read English as a second language is similar in some important respects to learning to read English as a first language (see August and Shanahan, this publication, for more details). At the same time, there are important differences, the primary one being influences from English learners' first language. English learners with limited competence in English, oral or written, draw on skills, knowledge, and experiences linked to the first language to fill gaps in their English reading skills until such time as they acquire the relevant English skills. Thus, contrary to claims that maintenance and continued development of English learners' first language impedes English literacy development because it diverts time that could be spent learning English, the empirical evidence indicates that continued use or development of the first language can facilitate English literacy development.

**Empirical evidence indicates that continued use or development of the first language can facilitate English literacy development.**

*Research on reading and writing development in dual language programs.* Howard and her colleagues have conducted a number of studies on the reading and writing development of both English learners and English-only students in two-way programs (e.g., Howard 2003; Howard, Christian, and Genesee 2004; Serrano and Howard 2003, 2007; Howard and Sugarman 2007). This research is important because it goes beyond reporting scores on achievement tests and provides detailed descriptions of students' actual reading and writing performance in both English and Spanish. These studies found that English learners made good progress in both languages and developed high-level reading and writing skills in both languages, meeting or exceeding grade-level norms and narrowing achievement gaps in English with English-only students, at least by grade five (Howard and Christian 1997; Serrano and Howard 2003, 2007; Howard, Christian, and Genesee 2004; Howard and Sugarman 2007). In addition, the writing scores of English learners in English and Spanish were very similar at all time points.

English learners' English and Spanish writing skills were fairly sophisticated in all four domains of analysis (organization, topic development, mechanics, and language use), but particularly with regard to organization. The Spanish essays were usually comparable to the English essays in terms of organization and topic development, but they showed more mechanical errors, more linguistic/grammatical errors (e.g., word order, word choice, and subject-verb agreement), and some influences from English, mostly in borrowing English vocabulary, and also some influence from English grammar and mechanics. There was no code-switching in the English essays and only a few instances in the Spanish ones, and all were flagged with quotation



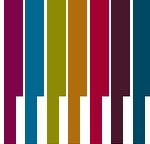
marks, indicating that the students understood that they were mixing languages. The English writing samples of the English learners were generally comparable to those of the English-only students, especially among the fifth- and sixth-grade students.

In a longitudinal study of English learners in a dual language program, Lindholm-Leary (2005) found that English learners began kindergarten with fairly low vocabulary scores in Spanish (33<sup>rd</sup> percentile), but they made substantial gains to above average (61<sup>st</sup> percentile) by grade three. Their Spanish vocabulary scores were similar in grades three and six. In addition, their Spanish vocabulary scores in grade three, but not kindergarten, were highly correlated with reading achievement scores on norm-referenced achievement tests in both Spanish and English.

Together, these studies indicate that, given effective programs, English learners can acquire reading and writing skills in English that are virtually comparable to those of English-only students and, at the same time, they acquire strong reading and writing skills in Spanish.

### Academic Achievement

Most researchers have examined the academic achievement of English learners in alternative educational programs in terms of outcomes on standardized achievement tests (cf. Lindholm-Leary and Borsato 2006), although some studies have used other measures, such as grade point average (GPA) (e.g., Curiel, Rosenthal, and Richek 1986; Lindholm-Leary and Borsato 2001), high school dropout rates (e.g., Curiel 1986; Thomas and Collier 2002), or even attitudes toward school and school-related topics (e.g., Cazabon et al. 1993; Gersten and Woodward 1995; Lambert and Cazabon 1994; Lindholm 1988; Lindholm-Leary and Borsato 2001). Although most studies have concentrated on students in elementary school, a few have focused on high school students to determine the influence of participation in a bilingual or dual language program during elementary school on later achievement levels. Studies at the secondary level have also often examined GPA, high school drop out or retention rates, and attitudes (Burnham-Massey and Piña 1990; Curiel, Rosenthal, and Richek 1986; Kirk Senesac 2002; Lindholm-Leary 2001; Medrano 1986; Thomas and Collier 2002). Only a few longitudinal studies have followed students from elementary into middle or high school (e.g., Lindholm-Leary and Borsato 2001; Thomas and Collier 2002). Finally, most studies on English learners during the past few years have focused on two-way programs (cf. Genesee et al. 2006), and this is reflected in the following review. Most of the studies also consist of comparative evaluations of outcomes in various program models. In general, these studies have been designed to answer one of three questions:



1. Which program is the best for English learners? This question has been addressed by studies that compare student outcomes on standardized tests of reading and/or mathematics achievement in different program types, usually bilingual versus something else (no program, structured English immersion [SEI] (English as a second language [ESL], or two different bilingual models).
2. Does more English during the instructional day result in improved student outcomes? This question is often a secondary issue in research designed to address question #1 above.
3. How well do students achieve in dual language programs? This issue is addressed in studies that describe student achievement in particular programs with respect to norms on standardized achievement tests in mathematics, science, and social studies; GPA; high school completion/dropout rates; or various school-related attitudes. In other words, these studies seek to quantify the academic outcomes of English learners relative to some standard.

### ***1. Which program is best for English learners?***

Most large-scale studies as well as most systematic syntheses of relevant research indicate that there is a benefit from bilingual instruction over English-only instruction (for reviews, see August and Hakuta 1997; Francis, Lesaux, and August 2006; Genesee et al. 2005, 2006; Greene 1998; Rolstad, Mahoney, and Glass 2005; Slavin and Cheung 2005;<sup>2</sup> Willig 1985). A minority of studies report that bilingual instruction is equivalent to, or provides no benefit over, English-only instruction (Parrish et al. 2006). Interestingly, even the synthesis studies of Baker and his colleagues (Baker and de Kanter 1981; Rossell and Baker 1996) that have been used to support English-only approaches “do not state that English-only instruction is more effective, but merely that bilingual instruction should not be the only approach mandated by law” (Francis et al. 2006). This section provides a brief overview of relatively recent syntheses of research and does not report on the entire body of research because of space limitations; see the syntheses of studies mentioned earlier or specific studies for more detailed findings.

As part of the National Literacy Panel on Language-Minority Children and Youth, Francis and colleagues (2006) examined studies that compared programs that provided literacy instruction through a student’s native language (bilingual program) with programs that provided literacy and other instruction through only English.

---

2. In Slavin and Cheung’s (2005) analysis of 13 studies that examined whether bilingual or English-only approaches to reading instruction were more effective, nine studies favored a bilingual approach while four studies found no difference, for an overall positive effect favoring a bilingual approach.



Their conclusion was that:

Overall, where differences between two instructional conditions were found in the studies reviewed, these differences typically favored the bilingual instruction condition. This is the case for studies conducted with students in both elementary and secondary schools, and with students possessing a range of abilities. (p. 398)

In their synthesis of available research on the achievement of English learners, Lindholm-Leary and Borsato (2006) found that there is strong convergent evidence that the academic achievement of English learners is positively related to sustained instruction that includes their first language, usually Spanish. They also reported that student achievement was related to length of participation in the program and the time of the assessment. More specifically, evaluations conducted in the early years of a program (kindergarten through grade three) typically revealed that students in bilingual programs scored below grade level (and sometimes very low), or either lower than or equivalent to comparison group peers (English learners or non-English learners in other types of programs). In contrast, almost all evaluations conducted at the end of elementary school or in middle and high school have found that the achievement of bilingually educated students, especially those in late-exit and two-way programs, was as good as and usually higher than that of comparison groups of students (e.g., Block 2007; Burnham-Massey and Piña 1990; Curiel, Rosenthal, and Richek 1986; Fulton-Scott and Calvin 1983; Lindholm-Leary 2001; Lindholm-Leary and Block in press; Lopez and Tashakkori 2006; Ramirez 1992). All studies of middle and high school students found that students who had received bilingual instruction in elementary school were as or more successful than comparison group students. In addition, most long-term studies report that the longer students stayed in the program, the more positive were their outcomes. These results were found for reading and mathematics achievement, GPA, attendance rates, high school completion rates, and attitudes toward school and self (e.g., Block 2007; Cazabon, Nicoladis, and Lambert 1998; Curiel, Rosenthal, and Richek 1986; Lambert and Cazabon 1994; Lindholm-Leary 2001; Lindholm-Leary and Borsato 2001, 2006; Lopez and Tashakkori 2006; Thomas and Collier 2002).

Rolstad, Mahoney, and Glass (2005) conducted a meta-analysis of studies on the effectiveness of bilingual education in Arizona, which like California, has an English-only mandate for English learners. Although the sample size was small (four studies), the results were consistent with other meta-analyses of studies based on national samples (Greene 1998; Willig 1985) and indicated a positive effect for bilingual instruction over English immersion (mainstream) instruction.

One limitation of this research concerns the definitions of program models under investigation (Francis et al. 2006; Lindholm-Leary and Borsato 2006). In some cases,



bilingual education is clearly defined as to the amount of time devoted to instruction through each language and duration of the program (e.g., early-exit or transitional; late-exit or maintenance; see Ramirez 1992, for examples). In other cases, it is not clear what specialized instruction the students received in their “bilingual” classrooms (Burnham-Massey and Piña 1990; Curiel, Rosenthal, and Richek 1986; Medrano 1988; Saldate, Mishra, and Medina 1985). In studies that included nonbilingual programs, sometimes a mainstream English classroom was labeled “structured English immersion” and, in other cases, structured English immersion included specialized instruction for English learners, including instruction in the native language (Gersten and Woodward 1995; Ramirez 1992). As a result, it is difficult to pinpoint the specific features of bilingual programs that produced the positive effects reported in those studies (Francis et al. 2006).

Most studies of academic achievement in English learners are cross-sectional (single year); few are longitudinal. Thus, it is not always clear if students had been in the same program prior to the evaluation or whether they had changed programs (MacSwan et al. 2002; Parrish et al. 2006). This is important because students who belong to the English-only comparison group may have been formerly in a bilingual program, or students may have changed programs for various reasons. In fact, analyses of data from all students in grades three through nine in Arizona revealed that program placement was highly variable and erratic from year to year (MacSwan et al. 2002; MacSwan 2004). Changing programs can have important effects on program and student outcomes. More specifically, while Arizona reported that English immersion students scored higher than did students in bilingual education (Arizona Department of Education 2004, as reported in Rolstad, Mahoney, and Glass 2005), the state did not consider how many of the students in English immersion had formerly participated in bilingual programs. In other words, any positive effects that bilingual education might have had on these students’ achievement would have been attributed to English immersion if the English learners had been reclassified. This is a recurrent problem in these studies and meta-analyses that report either no advantage or disadvantages of bilingual instruction.

**Summary.** The synthesis studies reviewed here provide evidence that English learners who participate in a bilingual program (receiving instruction through their primary language) may achieve at higher levels than English learners educated in English-only mainstream classrooms. These studies indicate further, and of particular importance, that English learners who participate in programs that provided extended instruction through the students’ native language (i.e., two-way immersion and late-exit programs) outperform students who receive only short-term instruction through their native language (i.e., early-exit programs) (e.g., Cazabon, Nicoladis, and Lambert 1998; Fulton-Scott and Calvin 1983).

Several authors suggest that there is no one *best* model that will serve all English learners at all times (e.g., August and Hakuta 1997; Christian et al. 1997; Genesee 1999). Rather, they point out the importance of providing services for English learners that consider the community context, the needs of students to be served, and the resources that are available for implementing the program; we return to these issues in a later section.

## ***2. Does more English lead to higher achievement in English?***

An issue that underlies much of the debate and much of the research on educational alternatives for English learners concerns *time on task*; that is, the assumption that the more time English learners spend on studying English, the better their achievement in English will be. Next, we review three types of research that examine outcomes of students according to amount of instructional time in English.

**Research Evidence 1.** Findings from the studies on program type discussed in question #1 suggest that students who receive instruction through their primary language actually score higher than students who receive instruction only through English. Thus, this evidence suggests that, contrary to the time-on-task argument, maximizing time in English does not lead to higher achievement in English.

**Research Evidence 2.** Several studies in California have examined the impact of Proposition 227 on English learners' achievement, and these studies provide an indirect test of the time-on-task argument (Butler et al. 2000; Garcia and Curry-Rodriguez 2000; Gordon and Hoxby 2002; Grissom 2004; Parrish et al. 2006; Thompson et al. 2002). Overall, there is no evidence from this research that increasing the amount of exposure to English instruction has positive effects on English learners' achievement in English. Details from specific studies are provided below:

- ⊙ In their large-scale study of the impact of Proposition 227 on the achievement of students in California, Parrish and others (2006) reported that all subgroups, regardless of program placement (EL [English learners], RFEP [redesignated fluent English proficient], EO [English only]), demonstrated gains in academic achievement from 1997-98 to 2003-04, indicating that increasing English learners' exposure to English did not result in a differential advantage for English learners.
- ⊙ Gordon and Hoxby (2002) also studied the impact of Proposition 227 on the achievement of English learners in bilingual versus English immersion programs in California. They found that students who had been in a bilingual program and were immediately shifted to English immersion after Proposition 227 exhibited diminished results following the change in program. In fact, they reported a decrease in reading achievement of 12 percent for students in grades three



to five, a decrease of 6 percent in grade six, and 4 percent in grades seven and eight. A more substantial negative effect occurred in math, where a decline of 27 percent was reported from grades three to five.

- ⦿ Grissom (2004) compared reclassification rates (from EL to RFEP) of Spanish-speaking English learners before and after the implementation of Proposition 227 in California. Despite greater exposure to English in the classroom after Proposition 227, Grissom concluded that there was not a correspondingly higher reclassification rate or higher test scores.
- ⦿ Thompson and others (2002) also examined whether the achievement of English learners improved after implementation of Proposition 227. Their careful analysis indicated that both English-only and English learners improved, but there was no reduction in the gap between English-only and English learner students. They interpreted the lack of gap reduction to indicate that English learners experienced the same increase that all students experienced and, thus, that there was no advantage of greater exposure to English in the classroom.
- ⦿ Garcia and Curry-Rodriguez (2000) and Butler and her colleagues (2000), in analyses of student test outcomes, also reported no significant effects due to Proposition 227 on the English achievement of English learners; that is, more time spent in English did not result in higher achievement in English.

**Research Evidence 3.** Another way of examining the time-on-task issue is to compare the performance of English learners who have been in 50/50 versus 90/10 two-way immersion programs, since the former are exposed to almost twice as much English in the early years of the program as the latter. In a review of this research, Lindholm-Leary and Howard (2008) failed to find evidence to support the time-on-task argument; that is, English learners who had more instruction in English did not achieve at higher levels in English than English learners who spent considerably less time in English. More specifically, they found that:

- ⦿ English learners in both 50/50 and 90/10 programs developed high levels of oral English proficiency (Christian et al. 2004; Lindholm-Leary 2001);
- ⦿ Whereas English learners in 50/50 programs exhibited higher scores in English than English learners in 90/10 programs in the early grade levels, these differences disappeared by the upper elementary grade levels and the performance of both groups remained comparable throughout the secondary grade levels (Christian et al. 2004; Lindholm-Leary 2005). In short, there was no evidence that exposure to more English (50/50 program) resulted in higher achievement in English than less exposure to English (90:10) by late elementary school.



**Summary.** The results of these various types of studies do not provide evidence that spending more school time in English leads to higher achievement or proficiency in English. However, and in contrast, the research suggests that spending more time in the students' first language benefits students' first-language development. As Lindholm-Leary and Howard (2008) point out, the results show that more instructional time spent in Spanish positively impacts achievement in Spanish and has no negative effect on achievement measured in English. These results are consistent with findings reported in previous studies of dual language education (August and Hakuta 1997; Genesee et al. 2006; Lindholm-Leary and Borsato 2006).

**More instructional time spent in Spanish positively impacts achievement in Spanish and has no negative effect on achievement measured in English.**

### *3. How well do students do in dual language programs?*

A number of studies include results from standardized achievement tests in reading and math and, thus, allow us to determine the actual level of achievement of English learners in alternative programs (Block 2007; de Jong 2002; Gold 2006; Howard and Sugarman 2007; Kirk Senesac 2002; Lambert and Cazabon 1994; Lindholm-Leary 2001; Lindholm and Aclan 1991; Lindholm-Leary and Block in press; Lindholm-Leary and Howard 2008; Lopez and Tashakkori 2006; Thomas and Collier 2002). As noted previously, the program model that has been examined most often is two-way immersion. These studies all found that bilingual programs were effective in helping English learners achieve at or above grade level in their first language and progress toward grade-level achievement, or above, in English by middle school. On norm-referenced standardized tests and criterion-referenced state tests of reading and math achievement in English, English learners in late elementary or middle school scored not only significantly higher than English learners in general in the state, but they also performed on par with English-only students in English-only classrooms (Block 2007; Christian et al. 2004; Gold 2006; Gomez, Freeman, and Freeman 2005; Howard and Sugarman 2007; Lindholm-Leary 2005; Lindholm-Leary and Block in press; Lindholm-Leary and Borsato 2005, 2006; Thomas and Collier 2002). Those results extend to studies of Chinese and Korean dual language students as well (Garcia 2003; Ha 2001; Lindholm-Leary 2001, 2009). English learners in dual language programs also demonstrated above average or high levels of academic achievement in their first language according to standardized tests of achievement in Spanish (Gold 2006; Lindholm-Leary 2001; Lindholm-Leary and Borsato 2005, 2006).

Four studies included samples of high school students who had previously or were currently participating in a two-way program (Kirk Senesac 2002; Lindholm-Leary



2001; Lindholm-Leary and Borsato 2001; Thomas and Collier 2002). Both 90/10 and 50/50 models of two-way immersion were represented in these studies at both elementary and high school levels. These studies consistently found that students scored very low in English reading in the early grade levels and progressed toward grade-level performance by later elementary or high school. They also showed that students who had developed high levels of proficiency in both languages were more successful at closing the achievement gap in reading with the norming group by grade four than students with lower levels of bilingual proficiency (Kirk Senesac 2002; Lambert and Cazabon 1994; Lindholm-Leary 2001; Lindholm and Aclan 1991; Lindholm-Leary and Howard 2008).

As to achievement in math, all studies showed that, although the students under evaluation had begun elementary school with low to below-average achievement in math, they scored average to above average in math when assessed in English by grades four to six, depending on the study (Block 2007; de Jong 2002; Kirk Senesac 2002; Lindholm and Aclan 1991; Lindholm-Leary and Block in press). The participating students also typically met district or state proficiency standards (de Jong 2002; Gomez et al. 2005; Kirk Senesac 2002) and scored above district and state averages for English learners (de Jong 2002; Lindholm-Leary 2001).

Some studies have also been conducted with relatively small numbers of students in one or two schools in a single geographic location (e.g., Cazabon, Nicoladis, and Lambert 1998; de Jong 2002; Kirk Senesac 2002; Stipek, Ryan, and Alarcón 2001). On aggregate, these studies found that English learners in two-way immersion programs performed as well as or better than their peers educated in other types of programs, both on English-medium standardized achievement tests and Spanish-medium standardized achievement tests.

**Summary.** In summary, this body of research is consistent in demonstrating that English learners who participate in dual language programs demonstrate proficiency and achievement in English at comparable or higher levels than their peers in English mainstream programs. In addition, receiving more English in their instructional day does not promote higher levels of English proficiency or achievement in reading/language arts. Rather, English learners in dual language programs appear more likely to close the achievement gap by late elementary or middle school than their English learner peers in English mainstream programs. This higher level of achievement for dual language English learners may be due to their ability to benefit

**English learners in dual language programs appear more likely to close the achievement gap by late elementary or middle school than their English learner peers in English mainstream programs.**



from cross-language influences; that is, English learners who can use their first language to “bootstrap” into literacy in English are able to fill gaps in their reading skills in English until they have developed the array of relevant English literacy skills to become competent readers.

### ***Identity and Attitudes***

Several studies have examined students’ attitudes toward bilingualism, other languages, the dual language program and school in general, and people who are different from themselves (Block 2007; Lambert and Cazabon 1994; Lindholm-Leary 2001; Lindholm-Leary and Borsato 2001; Lindholm-Leary and Ferrante 2005; Lopez and Tashakkori 2006; Potowski 2005). These studies found that English learners had positive perceptions of their academic competence, bilingualism, and two-way programs (Block 2007; Lambert and Cazabon 1994; Lindholm-Leary 2001; Lindholm-Leary and Borsato 2001; Lindholm-Leary and Ferrante 2005). Lindholm-Leary and Borsato (2001), for example, found that most English learners believed that they would not drop out of school; they wanted to go to college; they would go to college after high school; and they thought that getting good grades was important. Almost half of the students believed that the two-way program kept them from dropping out of school and that they were academically outperforming their peers who had also started school as English learners. Enrollment in two-way programs, compared with mainstream English-only classrooms, was also associated with greater participation in intergenerational family relationships, more positive attitudes toward bilingualism, and more acceptance toward students who differed in language background or physical appearance (Block 2007; Lopez and Tashakkori 2006).

## **Characteristics of Effective Dual Language Programs**

In Chapter 1, the characteristics of effective English language development programs were presented according to research with English learners. In this section, we briefly present research on the characteristics of effective dual language programs. Not surprisingly, high-quality dual language programs share many of the same characteristics as high-quality mainstream programs (Lindholm-Leary and Borsato 2006).<sup>3</sup> However, there are other characteristics in dual language programs that need to be considered, and it is those characteristics that we discuss now.

---

3. Effective features are described in greater detail in a document entitled *Guiding Principles for Dual Language Education*, which provides a comprehensive literature review (Lindholm-Leary 2007) and a set of key indicators of program quality in two-way immersion (Howard et al. 2007).



## Program and School Structure

In a high-quality program, there is a vision of bilingualism and multiculturalism based on the concept of *additive bilingualism*: all students are given the opportunity to acquire English as a second language at no cost to their home language. Additive bilingual programs are associated with grade-level achievement in the content domains, high levels of proficiency in the second language without loss of the home language (Lindholm-Leary 2001; Ramirez

1992; Thomas and Collier 2002), and improved self-esteem and cross-cultural attitudes (Cazabon, Nicoladis, and Lambert 1998; Kirk Senesac 2002; Lindholm 1994; Lindholm-Leary 2001; Lindholm-Leary and Borsato 2001, 2006). Conversely, subtractive bilingual school contexts in which learners' second language replaces the native language have negative effects on the academic achievement of many English learners. In other words, loss of the native language is associated with lower levels of second-language attainment, scholastic underachievement, alienation from families and peers speaking the first language, and difficulties with identity (Hernandez-Chavez 1984; Lambert 1984; Tse 1998; Valenzuela 1999; Wong Fillmore 1991).

An additive bilingual approach is critical if dual language education is to be successful because it ensures the implementation of high-level language and academic instruction. An additive bilingual approach helps to guarantee that decisions are made at program, curricular, and instructional levels that enrich English learners' and mainstream students' education. Fears that dual language learning is an unnecessary or unreasonable burden on students result in educational decisions that diminish or dilute the educational experience of students. For example, such fears often prompt educators to use bilingual modes of instruction (e.g., concurrent translation) to teach new or complex academic material when research shows consistently that such an approach is not only unnecessary but, furthermore, deleterious to dual language development if overused. Promoting additive bilingualism requires that school principals, and teachers as well, have some familiarity with and understanding of research on dual language education and its outcomes. A solid grounding in these domains empowers school principals to promote an attitude of additive bilingualism in the school, to encourage collegial and collaborative interaction among dual language and mainstream teachers in the school, and to advocate dual language programs. Knowledgeable and supportive school principals also ensure that teachers have access to the resources they need to implement an effective program, including

**In a high-quality program, there is a vision of bilingualism and multiculturalism based on the concept of *additive bilingualism*: all students are given the opportunity to acquire English as a second language at no cost to their home language.**



adequate support personnel, instructional and material resources, and time for planning and development.

Successful dual language programs engage in extensive and high-level planning and, in particular, plan for articulation across grade levels and programs (Met and Lorenz 1997; Montecel and Cortez 2002). Regular and substantial ongoing time for planning during the school week and across the school year is critical if dual language education is to be successful. Collaborative planning that involves teachers across grade levels and programs within a school is essential because dual language programs aim to accomplish all that mainstream programs aim for and, in addition, they seek to invest children with additional language and cultural competencies. Dual language programs represent value-added education and, as such, they demand careful planning. More specifically, schoolwide planning is critical to ensure:

**Successful dual language programs engage in extensive and high-level planning and, in particular, plan for articulation across grade levels and programs.**

- (a) adequate and equitable distribution of school resources;
- (b) collaboration among dual language and mainstream teachers in the creation of a coherent and integrated curriculum;
- (c) the development and implementation of a schoolwide curriculum that integrates first- and second-language instruction with academic instruction at each grade level and across grade levels;
- (d) language-minority and language-majority students are taught equitably and to high standards; and
- (e) appropriate assessment protocols are developed and put in place to monitor program effectiveness (cf. Howard et al. 2007; Lindholm-Leary 2001).

In short, planning time ensures developmentally effective and efficient programs.

Supportive and knowledgeable leadership is also essential to guide decision making about critical issues in dual language schools (cf. Howard et al. 2007; Lindholm-Leary 2001). Chief among these is the allocation of time to each language and the sequencing of literacy instruction. The allocation of time entails decisions about how much time to devote to each language and when. As noted earlier, there are three prominent models of dual language education: developmental bilingual, two-way immersion, and transitional. Furthermore, developmental and two-way program models themselves can be differentiated by the allocation of time to each language—either 90/10 (90 percent of the time devoted to the minority language, 10 percent to the majority language) or 50/50. Each has its advantages and potential disadvantages. Proactive



and informed leadership is essential to guide parents, teachers, and the public at large as to which model is optimal for their community. In the absence of effective leadership, decisions about program model and time allocation for each language are often made on the basis of hearsay, superstition, or simple ignorance, all of which risk jeopardizing the educational achievement of English learners.

If schools choose a 50/50 two-way immersion model, then a decision must be made about the sequencing of literacy instruction. Several options exist: each group receives instruction in its own language first, followed by literacy instruction in the other language; all students receive instruction in the minority language first; or all students receive literacy instruction in both English and the other language from the beginning. In determining which sequence to use, one should consider the English-language and literacy skills of the English learner population. Students with little or no oral language skills in English may be more academically successful if they are first provided with literacy skills in their native language; literacy in the first language can then be used to transfer to literacy skills in English.

## Curriculum

Research has demonstrated clearly that a high-quality curriculum is critical for students' academic success. There are many components to a high-quality curriculum for English learners. In effective schools, the curriculum is meaningful, enriched, and academically challenging. It incorporates higher-order thinking and is thematically integrated (Berman et al. 1995; Cloud, Genesee, and Hamayan 2000; Doherty et al. 2003; Montecel and Cortez 2002; Ramirez 1992).

**Research has demonstrated clearly that a high-quality curriculum is critical for students' academic success.**

In addition, the curriculum is infused with language instruction at all times to meet the vision and goals associated with bilingualism and biliteracy (American Council on the Teaching of Foreign Languages 2006; Cloud, Genesee, and Hamayan 2000; Genesee 1987). Language objectives are considered in all aspects of curriculum planning (Lyster 2007), and language and literacy are developed across the curriculum (Doherty et al. 2003) to ensure that students learn required content as well as the academic language associated with that content.

Language objectives should be integrated with academic objectives. That is to say, language skills that are critical for the mastery of academic objectives should be identified and included along with relevant academic objectives. This also means that language objectives should be taught along with academic objectives so that students acquire the language skills needed to master academic subject matter. As

well, provision should be made in the curriculum to teach critical language objectives explicitly since research shows that second-language learners acquire certain language skills more effectively if there is an explicit focus on those skills (Lyster 2007). This principle is especially true for literacy skills and other language skills related to academic uses of language, such as text organization and use of language for explanation and argumentation.

Consequently, it is necessary for a balance between implicit and explicit language teaching that is integrated with academic instruction (Lyster 2007). The language arts portion of the curriculum should focus on explicit instruction of those language skills that are essential to the mastery of prescribed literacy and academic objectives. Language objectives should include functions, grammar, and vocabulary in alignment with academic demands of the curriculum and social demands of school and extra-curricular activities. (See the chapters by Snow and Katz and by Dutro and Kinsella, this publication, for more information about providing effective ELD instruction.)

### Instruction

Of course, good instruction is associated with higher student outcomes regardless of the type of educational model that is used. In dual language programs, good instruction includes the following characteristics:

- ⊙ It has diverse instructional techniques that respond to different language proficiency levels (Berman et al. 1995; Echevarria, Short, and Powers 2006; Echevarria, Vogt, and Short 2008; Montecel and Cortez 2002).
- ⊙ Cooperative learning and other grouping strategies optimize student interactions and shared work experiences, especially in two-way programs that include both English learners and English-only students in the same classrooms (e.g., Calderon and Carreon 2001; Cohen 1994).
- ⊙ Optimal language input in turn calls for careful planning to integrate language and subject matter instruction to ensure access to the core curriculum (Berman et al. 1995; Echevarria et al. 2006, 2008). Sheltered instruction is one particularly useful way in which language teaching can be integrated with content instruction to ensure optimal language development at the same time as students master required content objectives (see Echevarria and Short, this publication).
- ⊙ Balanced use of both languages is required because there are two language populations, one of which is native speakers and one of which is language learners.

**Of course, good instruction is associated with higher student outcomes regardless of the type of educational model that is used.**



Both groups need support and enrichment. English learners need support to acquire academic language and intellectual stimulation to extend their native language skills. The risk in two-way immersion programs is that English learners are used as “props” to stimulate the language development of native speakers of English without getting sufficient language enrichment themselves (Kowal and Swain 1997; Valdés 1997). In addition, Gathercole (2002b) concludes that in the bilingual groups she studied (English learners in two-way, English learners in mainstream—both those with Spanish or English in the home) that performed the best had the greatest amount of input (considering both home and school), and those who performed the worst had the least. She argues that students need a “critical mass” of input that will enable them to understand the linguistic structures they are learning. Similarly, Tomasello (2000) points out that the frequency of input can be influential when overgeneralizations occur in children’s language; that is, linguistic items that are heard more frequently can become entrenched and may be less likely to elicit errors than items that are heard less frequently.

- ◉ Students need explicit second-language instruction to promote second-language learning (Lyster 2007). It is important to base instruction on a curriculum that specifies which language skills (e.g., questioning, requesting information) and structures (e.g., conditional verb forms) should be mastered and how they should be integrated into academic content instruction (e.g., including preterit and imperfect forms of verbs in Spanish when teaching history; conditional, future, and subjunctive verb tenses when teaching mathematics and science).
- ◉ Monolingual lesson delivery (each language is used during different periods of time for instruction in specific domains) to ensure that students do not tune out when the nonnative language is being used (Dulay and Burt 1978; Legaretta 1979,1981).

Teachers also need to know how to use instructional strategies that draw on students’ existing oral and written language skills and cultural resources; for example, instruction that draws on learners’ background knowledge to preview new content and make links to the native language when teaching literacy (e.g., spelling, vocabulary, grammar). At the same time, dual language teachers should avoid using both languages simply to make teaching and learning easier (i.e., dual language instruction as a “crutch”). Language acquisition is facilitated when there is a focus on each language during specific instructional periods; otherwise, students who have recourse to the other language may fail to show growth in acquiring new language skills in their weaker language. Use of the home language is appropriate if done strategically; for example, at the upper grade levels to explicate similarities or differences between the home language and English or to preview new material that is particularly complex.

## Appropriate Assessment and Accountability

Most research on effective schools, including effective dual language programs, highlights the importance of assessment and accountability. Many studies have pointed out the benefits of using student achievement data to shape and/or monitor program effectiveness (August and Hakuta 1997; Berman et al. 1995; Slavin and Calderón 2001). Effective use of assessment data to improve program outcomes is most likely when schools use assessment measures that are aligned with the school's vision and goals, the curriculum, and district and state standards (Montecel and Cortez 2002). Dual language programs require the use of multiple measures in both languages to assess student progress toward meeting bilingual and biliteracy goals along with regular mandated curricular and content-related goals.

In light of evidence from the reviews conducted by the National Literacy Panel (August and Shanahan 2006) and the Center for Research on Education, Diversity and Excellence (Genesee et al. 2006), it is also important that classroom assessment take cross-language influences into account. For example, in the case of English learners being assessed in English, transfer from the home language that results in native language-like forms or usage in English should not simply be marked incorrect, but should be noted as instances of students' strategic use of the native language to acquire English. This kind of evidence can also be used for explicit instruction in how the native language and English differ (or are similar) so that students are better able to master the English forms.

## Quality of Staff and Professional Development

The significance of highly qualified teachers has been demonstrated in many studies with English learners (e.g., August and Shanahan, this publication; Montecel and Cortez 2002). In dual language programs, research has identified several factors that are associated with effective teaching:

- ⦿ Appropriate teaching certificates or credentials, good content knowledge, and good classroom management skills (Cloud et al. 2000; Lindholm-Leary 2001; Met and Lorenz 1997; Montecel and Cortez 2002).
- ⦿ Bilingual/BCLAD (Bilingual, Cross-cultural, Language, and Academic Development) and ESL/ELD credentials help provide teachers with a solid understanding of bilingual education theory, second-language development and theory, educational equity, appropriate instructional strategies for English

**The significance of highly qualified teachers has been demonstrated in many studies with English learners.**



learners, and other strategies that establish positive classroom environments for English learners. When teachers do not have appropriate understanding of bilingual theory and bilingual education, they risk making poor choices regarding program structure, curriculum, and instruction, which can lead, in turn, to lowered student performance and the perception that bilingual education does not work (Clark et al. 2002). However, one should not assume that all teachers who have a bilingual credential have current knowledge of or support for dual language education.

- ◉ Native or native-like ability in the language(s) in which they teach (e.g., Clark et al. 2002; Doherty et al. 2003; Lindholm-Leary 2001; Montecel and Cortez 2002; Ramirez 1992).

## Issues in Learner Needs

Academic performance is often related to characteristics of students and their backgrounds. In this section, we briefly review research evidence concerning the following learner and background characteristics and their influence on academic achievement and other school-related outcomes: socioeconomic status, length of residence or prior schooling, disability, language status, and demographic characteristics of the school's population.

### Socioeconomic Status

There is an extensive body of research on the relationship between socioeconomic status (SES) and achievement among students from the mainstream population (Knapp and Woolverton 2003). In contrast, there are relatively few empirical studies of SES and its relationship to achievement in English learners. Moreover, most research on English learners includes Hispanic students from low-income families and, thus, there is insufficient variation in student SES to discern the true relationship between differences in SES and variations in achievement among English learners (Adams et al. 1994). Notwithstanding this limitation, the available evidence indicates that there is a positive relationship between SES and academic achievement in English learners, as has been found for mainstream students (Fernandez and Nielsen 1986; Hampton, Ekboir, and Rochin 1995; Lindholm-Leary 2001; Lindholm-Leary and Howard 2008; Nielsen and Lerner 1986). One measure of SES that has been used in research on mainstream and English learner students is parental level of education (Knapp and Woolverton 2004). The few research studies that have used parental education as a measure of SES have reported either no effect for parental education (Adams et al. 1994) or an effect but only for English and not Spanish



achievement (Lindholm-Leary 2001; Gatherole 2002b). The failure to find a link between SES and achievement should be interpreted with caution because there was little variation in parental education in the predominantly Hispanic and low-SES families that were included in these studies.

### Length of Residence in United States and Prior Schooling

Studies on length of residence in the United States and prior schooling have found that the longer families reside in the United States, measured in terms of number of generations since immigration, the *lower* students' school achievement; in other words, recent immigrants tend to attain higher levels of achievement than do second- or third-generation Hispanic students (Adams et al. 1994; Fernandez and Nielsen 1986). Indeed, there is a growing evidence that recent immigrants in general, both Hispanic and Asian and not necessarily only English learners, have higher levels of achievement than second- and later-generation students (Kao and Tienda 1995; Olneck 2004; Rumbaut and Portes 2001). In one of the few studies to include English learners other than Spanish speakers, along with a wide range of SES levels, Collier (1987) examined 1,548 English learners with a variety of home languages who arrived in the United States at different ages to determine how long it took them to reach grade-level achievement in ESL classes. Collier reported that students who arrived between the ages of eight and eleven made the greatest achievement gains; those who arrived at ages five to six were projected to require at least two to three more years to reach the level of performance of the older students; and those who arrived between twelve and fifteen years of age were the lowest achievers and, in fact, had not reached the national average in any subject area, except math, even after four to five years of residence in the United States.

**Recent immigrants tend to attain higher levels of achievement than do second- or third-generation Hispanic students.**

These results are important in highlighting the complex role of second-language literacy skills in the academic success of English learners at different grade levels. Arguably, since all students had no or limited proficiency in oral English, differences among these groups are attributable to the role of literacy in English in the face of a curriculum that becomes increasingly difficulty across grade levels. In particular, the youngest learners were at a disadvantage because of low levels of literacy in both English and their home language, and the oldest learners, although literate in their home language, were at a disadvantage because of a demanding academic curriculum that made it difficult for them to draw on native language literacy skills. In contrast, the eight- to eleven-year-olds were able to draw on native language literacy



skills to cope with a curriculum of intermediate difficulty. This research suggests that English learners who arrive during the high school years with limited English language skills are at most risk for academic difficulty and struggle to catch up to grade-level expectations because of the high academic and literacy demands of the curriculum. Many districts have developed newcomer programs to address the specific needs of such students (see August and Shanahan, this publication, for further information on literacy development and Echevarria and Short, this publication, for more information on newcomer programs).

### Students with Disabilities

Only a few studies of dual language programs have examined issues concerning English learners with special education needs (Lindholm-Leary and Howard 2008). Even these studies did not focus specifically on students with special education needs. Nevertheless, these are instructive for what they reveal about the achievement of special education students in dual language programs. Howard (2003) and Lindholm-Leary (2001, 2005) found that students with special education needs who participated in dual language programs experienced significant positive outcomes by the upper elementary grade levels. Students with special needs may be better served in dual language programs than in English-only programs because, although they may have less well-developed literacy skills in English than students without special needs, they are biliterate; in fact, some score average in Spanish reading achievement. Their peers in the English-only program who have special needs have low levels of literacy in the only language they know; they lack literacy skills in Spanish that they can draw on while learning English literacy skills. Dual language students with special needs who are bilingual and biliterate may have an advantage compared with English learner peers in English-only programs who are monolingual and have below-average literacy skills in their only language.

**Students with special education needs who participated in dual language programs experienced significant positive outcomes by the upper elementary grade levels.**

In light of these findings, it would appear that English learners with special needs should be accepted into dual language programs and be kept in the program for its duration despite their special needs so that they acquire literacy skills in two languages to the level they are capable. Including such students in dual language programs confers advantages for English learners with special needs that would be lost if they were educated monolingually (e.g., Artiles and Ortiz 2002; Goldstein 2004; Kohnert and Derr 2004). Moreover, there is no evidence indicating that educating



English learners with special needs in English-only programs results in greater achievement in English.

Research on English learners with learning disabilities is also scant, and yet there is sufficient evidence at this time to argue that English learners with language-learning impairments can become bilingual to the extent that their impairment allows. There is no empirical justification for excluding such students from dual language programs on the grounds that restricting their language learning, in and outside school, to one language facilitates their language development and helps resolve their underlying impairment. To the contrary, research on English learners with language-learning difficulties indicates that such learners can acquire competence in two languages (de Valenzuela and Niccolai 2004) and can benefit from participation in dual language programs (Artiles and Ortiz 2002; Kohnert and Derr 2004).

In fact, it has been argued that English learners with language impairment are likely to attain higher educational outcomes in dual language programs than monolingual programs because the former take advantage of the considerable cross-linguistic transfer that has been observed to occur in the acquisition of literacy skills and the enhanced cognitive advantages that accompany bilingual proficiency (Bialystok 2001, 2008).

The research evidence that is available also indicates that the diagnosis of learning impairment involves assessment of both languages and that interventions for children with language-learning impairments be carried out using both languages. There is consensus among researchers who have studied bilingual students with special education needs that both languages should be considered in the planning and implementation of interventions for them (Artiles and Ortiz 2002; Baca and Cervantes 2004; Goldstein 2004; Kohnert 2004; Kohnert and Derr 2004; Restrepo and Gutierrez-Clellen 2004; see August and Shanahan, this publication).

### Language Status

Most research is consistent in showing that bilingual proficiency and biliteracy are positively related to academic achievement in both languages (Lindholm-Leary and Borsato 2006). More specifically, several studies have shown that bilingual Hispanic students have higher achievement scores (Fernandez and Nielsen 1986; Lindholm-Leary 2001; Nielsen and Lerner 1986; Rumberger and Larson 1998), GPAs, and educational expectations (Fernandez and Nielsen 1986; Nielsen and

**Most research is consistent in showing that bilingual proficiency and biliteracy are positively related to academic achievement in both languages.**



Lerner 1986) than their monolingual English-speaking Hispanic peers. Consistent with these findings are results of studies of English learners who acquire both communicative and academic proficiency in English and, thus, are bilingual, indicating that they tend to achieve at even higher levels than do monolingual native English-speaking students in reading and math measured in English (Lindholm-Leary 2007).

## Demographics of School Population

Lindholm-Leary and Block (Block 2007; Lindholm-Leary 2001; Lindholm-Leary and Block 2008) have examined the impact of school demographics on student achievement in dual language programs. Lindholm-Leary (2001) found higher levels of Spanish oral and reading proficiency in dual language schools with relatively high ethnic density and a high proportion of students from low SES backgrounds in comparison to schools with lower ethnic density and fewer low SES students. In contrast, students were more likely to attain higher levels of proficiency in English reading achievement when they attended schools with less ethnic density and with fewer low-SES students. In short, being schooled with a high proportion of Spanish speakers has a positive impact on Spanish achievement, while being schooled with a relatively high proportion of advantaged English speakers may confer a positive impact on English achievement. Block (2007) and Lindholm-Leary and Block (2008) reported that English learner and Hispanic English-speaking students in predominantly Hispanic, low-SES schools achieved similarly to or higher than their peers in mainstream English-only programs at the same or nearby schools.

## Conclusions

We began this chapter with a discussion of various reasons for promoting bilingualism in English learners, including the cognitive and cultural advantages associated with high levels of bilingual proficiency and enhanced career opportunities that result from knowing two languages. Next we described various models of dual language education: transitional, developmental, and two-way immersion and explained that the only programs that could develop true bilingual, biliterate, and multicultural competencies are models that are additive in nature; namely, developmental bilingual and two-way immersion programs.

We then turned to research on the oral language development of English learners. Overall, the empirical evidence concerning the oral English and home language development of English learners is limited and fragmented and, thus, we have a weak empirical foundation for developing programs that promote oral English skills. Notwithstanding these limitations, some trends are discernible in the available

evidence. First, contrary to much popular opinion, the acquisition of oral language skills in a second language is a complex process that takes time even for young second-language learners. More specifically, research on English learners in California and elsewhere in the U.S. indicates that it can take two years, or more, for English learners to acquire proficient oral language skills for general communicative purposes and even longer when it comes to acquiring oral academic language skills. Second, the available evidence also indicates that, despite the fact that most English learners in California are educated in English mainstream classrooms, the majority lack the academic language skills needed to be reclassified as English proficient *even after 10 years of English instruction*. Third, studies that have looked at the oral language development of English learners in a dual language program indicate that they attain the same or higher levels of oral proficiency in English as English learners in all-English programs and, at the same time, they achieve higher levels of proficiency in their native language than similar English learners in all-English programs.

The importance of oral language skills in the education of English learners is highlighted in research on literacy development. This research shows that literacy development in English as a second language is influenced by English learners' oral language skills, as it is in native English-speaking students. The relationship between English oral skills and English literacy is more complex in English learners than it is in native speakers of English because of cross-linguistic influences from English learners' first language on their acquisition of English reading and writing skills. English learners often call upon oral native language skills to "bootstrap" into English literacy prior to having acquired the necessary skills in English. In other words, skills in the native language support their literacy development in English. Thus, the development of oral proficiency in the native language, as well as in English, and the development of skills related to reading in their first language can facilitate the development of literacy skills in English among English learners.

Research that has looked at the relationship between literacy in the native language and English literacy development provides additional evidence of cross-language influences, most of which facilitate the development of literacy skills in English (see also August and Shanahan, this publication). Specifically, English learners with preliteracy skills in the native language progress more quickly and successfully in English literacy than English learners without these skills and related literacy experiences. In fact, it

**Research that has looked at the relationship between literacy in the native language and English literacy development provides additional evidence of cross-language influences, most of which facilitate the development of literacy skills in English.**



has been found that English learners who were identified as the best readers in their native language were able to transition to English reading instruction earlier than other students. Thus, contrary to claims that maintenance and continued development of English learners' native language impedes literacy development in the second language because it diverts time that could be spent learning English, there is little empirical evidence that continued use or development of the native language detracts from English literacy development. To the contrary, the available evidence argues for additive cross-language effects in those domains that are related to reading/writing and higher order academic and cognitive tasks.

We next examined research on the academic achievement of English learners in dual language programs. A common theme in this research is *time on task*—the assumption that the more time students spend in English in school, the higher will be their achievement in English. We have already seen that this is not true for the development of oral proficiency in English since the majority of English learners in English mainstream programs do not become proficient in English; nor do they necessarily outperform English learners in dual language programs in the long run. The time-on-task assumption does not hold up when it comes to academic achievement either. Research that has compared the achievement of English learners in dual language programs versus English mainstream programs has found that English learners in dual language programs attain the same or higher levels of achievement in academic domains as students in all-English programs. The same trend is evident in research that has examined alternative forms of dual language education. English learners who receive more instructional time in English (e.g., 50/50 two-way programs) do not achieve at higher levels than students who receive less instructional time in English (e.g., 90/10 two-way immersion programs). In contrast, spending more instructional time in Spanish improves English learners' achievement in Spanish. Once again, those studies highlight important additive cross-language facilitation effects when students are educated in two languages. Those additive bilingual effects are perhaps most evident in findings that indicate that English learners who develop high levels of proficiency in both languages are more successful at closing the achievement gap in reading with norming groups than students with lower levels of bilingual proficiency (e.g., students with higher levels of oral proficiency in English and lower levels of oral proficiency in Spanish).

We also examined research concerned with quality indicators of effective dual language programs. It is important to recognize that while some programs may call themselves dual language or two-way immersion, they may not actually conform to the program specifications outlined at the beginning of this chapter. Therefore, the research findings reported here may not apply to those programs. Research findings



point to some characteristics of effective dual language programs, including an additive vision of bilingualism and multiculturalism; extensive planning time to ensure high-quality instruction and articulation and infusion of language instruction across all domains of the curriculum and across grade levels; professional development for all staff; and the use of assessment results to improve program delivery.

Finally, we noted that research has shown that certain learner or school characteristics (SES or parent education, special education, demographics of school population) can influence student outcomes. In this chapter we provide specific details about each of these variables and conclude that, overall, there is no research to suggest that any of those variables or combinations of variables impede the ability of any particular group of students from benefiting from instruction in a dual language program.

In conclusion, while we and other researchers have pointed out the need for further research on the education of English learners, there is sufficient research to demonstrate the positive impact of high-quality dual language programs to promote bilingual, biliterate, content-area, and multicultural competencies.

**There is sufficient research to demonstrate the positive impact of high-quality dual language programs to promote bilingual, biliterate, content-area, and multicultural competencies.**



## References

- Abedi, J. 2003. *Impact of students' language background on content-based performance: Analyses of extant data*. Executive Summary. CSE Technical Report No. 603. Los Angeles: University of California, Center for the Study of Evaluation/National Center for Research on Evaluation, Standards, and Student Testing.
- Adams, D., B. Astone, E. M. Nunez-Wormack, and I. Smoldaka. 1994. Predicting the academic achievement of Puerto Rican and Mexican-American ninth-grade students. *Urban Review* 26(1): 1–14.
- American Council on the Teaching of Foreign Languages. 2006 *Standards for foreign language learning in the 21<sup>st</sup> century*. 3<sup>rd</sup> ed. Lawrence, KS: Allen Press, Inc.
- Artiles, A. J., and A. A. Ortiz, eds. 2002. *English language learners with special education needs: Identification, assessment, and instruction*. Washington, DC, and McHenry, IL: Center for Applied Linguistics and Delta Systems.
- Au, K., and C. Jordan. 1981. Teaching reading to Hawaiian children: Analysis of a culturally appropriate instructional event. *Anthropology and Education Quarterly* 11: 91–115.
- August, D., and K. Hakuta, eds. 1997. *Improving schooling for language minority children: A research agenda*. Washington, DC: National Academy Press.
- August, D., and T. Shanahan, eds. 2006. *Developing literacy in second language learners. Report of the national literacy panel on minority-language children and youth*. Mahwah, NJ: Lawrence Erlbaum.
- Baca, L., and H. Cervantes. 2004. *The bilingual special education interface*. 4<sup>th</sup> ed. Upper Saddle River, NJ: Pearson/Merrill/Prentice Hall.
- Baker, C. 2006. *Foundations of bilingualism and bilingual education*. 4<sup>th</sup> ed. Clevedon: Multilingual Matters.
- Baker, K. A., and A. A. de Kanter. 1981. *Effectiveness of bilingual education: A review of the literature*. Washington, DC: U.S. Department of Education, Office of Planning, Budget, and Evaluation.
- Banks, J., ed., 2004. Immigrants and education in the United States. In *Handbook of research on multicultural education*. 2<sup>nd</sup> ed. New York: Macmillan.
- Barker, C. M. 2000. *Education for international understanding and global competence*. Report of a Meeting Convened by Carnegie Corp of New York.

- Berman, P., C. Minicucci, B. McLaughlin, B. Nelson, and K. Woodworth. 1995. School reform and student diversity: *Case studies of exemplary practices for English language learner students*. Santa Cruz, CA: National Center for Research on Cultural Diversity and Second Language Learning, and B.W. Associates.
- Bialystok, E. 2001. *Bilingualism in development: Language, literacy, and cognition*. New York: Cambridge University Press.
- Bialystok, E. 2008. *Language processing in bilingual children*. New York: Cambridge University Press.
- Bialystok, E., and M. Martin. 2004. Attention and inhibition in bilingual children: Evidence from the dimensional change card sort task. *Developmental Science* 7, 325–39.
- Bikle, K., K. Hakuta, and E. S. Billings. 2004. Trends in two-way immersion research. In *Handbook of research on multicultural education*. 2<sup>nd</sup> ed., ed. J. A. Banks and C. A. McGee Banks, New York: Macmillan.
- Block, N. 2007. Dual immersion programs in predominantly Latino schools. PhD diss., Claremont Graduate University, Claremont, CA.
- Burnham-Massey, L., and M. Piña. 1990. Effects of bilingual instruction on English academic achievement of LEP students. *Reading Improvement* 27(2): 129–32.
- Butler, Y., J. E. Orr, M. Bousquet Gutierrez, and K. Hakuta. 2000. Inadequate conclusions from an inadequate assessment: What can SAT-9 scores tell us about the impact of Proposition 227 in California? *Bilingual Research Journal* 24: 141–54.
- Calderón, M., and A. Carreón. 2001. A two-way bilingual program: Promise, practice, and precautions. In *Effective programs for Latino students*, ed. R. Slavin and M. Calderon. Mahwah, NJ: Lawrence Erlbaum.
- Cazabon, M., W. Lambert, and G. Hall. 1993. *Two-way bilingual education: A progress report on the amigos program*. Research Report No. 7. Santa Cruz, CA: National Center for Research on Cultural Diversity and Second Language Learning.
- Cazabon, M., E. Nicoladis, and W. E. Lambert. 1998. *Becoming bilingual in the amigos two-way immersion program*. Research Report 3.
- Center for Applied Linguistics. 2008. Languages of instruction in TWI programs. <http://www.cal.org/twi/directory/language.htm> (accessed June 29, 2017.)



- Christian, D., C. Montone, K. Lindholm, and I. Carranza. 1997. *Profiles in two-way immersion education*. Washington, DC: Delta Systems and ERIC Clearinghouse on Languages and Linguistics.
- Christian, D., F. Genesee, K. Lindholm-Leary, and E. Howard. 2004. *Final progress report: CAL/CREDE study of two-way immersion education*.
- Clark, E. R., B. B. Flores, M. Riojas Cortez, and H. R. Smith. 2002. You can't have a rainbow without a *tormenta*: A description of an IHE's response to a community need for a dual language school. *Bilingual Research Journal* 26(1): 123–48.
- Cloud, N., F. Genesee, and E. Hamayan. 2000. *Dual language instruction: A handbook for enriched education*. Portsmouth, NH: Heinle & Heinle.
- Cohen, Elizabeth G. 1994. *Designing groupwork: Strategies for the heterogeneous classroom*. New York: Teachers College Press.
- Collier, V. P. 1987. Age and rate of acquisition of second language for academic purposes. *TESOL Quarterly* 21(4): 617–41.
- Collier, V. P. 1989. How long? A synthesis of research on academic achievement in a second language. *TESOL Quarterly* 23(3): 509–31.
- Committee for Economic Development. (2007). *Education for global leadership: The importance of international studies and foreign language education for U. S. economic and national security*. Washington, DC: Committee for Economic Development.
- Crystal, D. 2003. *English as a global language*. New York: Cambridge University Press.
- Cummins, J. 1976. The influence of bilingualism on cognitive growth: A synthesis of research findings and an explanatory hypothesis. *Working Papers on Bilingualism* 9: 1–43.
- Cummins, J. 1981. The role of primary language development in promoting educational success for language minority students. In *Schooling and language minority students: An educational framework*. 1<sup>st</sup> ed., 3–49. Los Angeles: Evaluation, Dissemination and Assessment Center, California State University.
- Curiel, H., J. A. Rosenthal, and H. G. Richek. 1986. Impacts of bilingual education on secondary school grades, attendance, retentions and drop-out. *Hispanic Journal of Behavioral Sciences* 8(4): 357–67.
- De Jong, E. J. 2002. Effective bilingual education: From theory to academic achievement in a two-way bilingual program. *Bilingual Research Journal* 26(1): 65–84.

- de Valenzuela, J. S., and S. L. Nicolai. 2004. Language development in culturally and linguistically diverse students with special education needs. In *The bilingual special education interface*. 4<sup>th</sup> ed., ed. L. Baca and H. Cervantes, 125–61. Upper Saddle River, NJ: Merrill.
- Doherty, R. W., R. S. Hilberg, A. Pinal, and R. G. Tharp. 2003. Five standards and student achievement. *NABE Journal of Research and Practice* 1: 1–24.
- Dulay, H., and M. Burt. 1978. From research to method in bilingual education. In *International dimensions in bilingual education*, ed. J. Alatis. Washington, DC: Georgetown University Press.
- Echevarria, J., D. Short, and K. Powers. 2006. School reform and standards-based education: An instructional model for English language learners. *Journal of Educational Research* 99(4): 195–210.
- Echevarria, J., M. E. Vogt, and D. Short. 2008. *Making content comprehensible for English language learners: The SIOP model*. 3<sup>rd</sup> ed. Boston: Allyn & Bacon.
- Escamilla, K., and M. Medina. 1993. English and Spanish acquisition by limited-language proficient Mexican-Americans in a three-year maintenance bilingual program. *Hispanic Journal of Behavioral Sciences* 15(1): 108–20.
- Escamilla, K., L. Baca, J. Hoover, and E. Almanza de Schonewise. 2005. *An analysis of limited English proficient student achievement on Colorado state reading, writing, and math performance standards* (Field Initiated Project No.T292B010005). Washington, DC: U.S. Department of Education, Office of English Language Acquisition.
- Fernandez, R., and F. Nielsen. 1986. Bilingualism and Hispanic scholastic achievement: Some baseline results. *Social Science Research* 15: 43–70.
- Foreign language framework for California public schools*. 2003. Sacramento: California Department of Education.
- Fortune, T., and D. Tedick, eds. 2008. *Pathways to bilingualism: Evolving perspectives on immersion education*. Avon, England: Multilingual Matters.
- Francis, D. J., N. K. Lesaux, and D. L. August. 2006. Language of instruction for language minority learners. In *Developing literacy in a second language: Report of the National Literacy Panel*, ed. D. L. August and T. Shanahan, 365–414. Mahwah, NJ: Lawrence Erlbaum.
- Fulton-Scott, M. J., and A. D. Calvin. 1983. Bilingual multicultural education vs. integrated and non-integrated ESL instruction. *NABE: The Journal for the National Association for Bilingual Education* 7(3): 1–12.



- Garcia, G. E. 1998. Mexican-American bilingual students' metacognitive reading strategies: What's transferred, unique, problematic? *National Reading Conference Yearbook* 47: 253–64.
- Garcia, Y. 2003. Korean/English two-way immersion at Cahuenga Elementary School. *NABE News* 26: 8–11, 25.
- Garcia, E., and J. Curry-Rodriguez. 2000. The education of limited English proficient students in California schools: An assessment of the influence of Proposition 227 on selected districts and schools. *Bilingual Research Journal* 24(1 & 2): 15–35.
- Gathercole, V. C. M. 2002a. Command of the mass/count distinction in bilingual and monolingual children: An English morphosyntactic distinction. In *Language and literacy in bilingual children* (Child Language and Child Development, 2), ed. D. K. Oller and R. E. Eilers. Avon, England: Multilingual Matters.
- Gathercole, V. C. M. 2002b. Grammatical gender in bilingual and monolingual children: A Spanish morphosyntactic distinction. In *Language and literacy in bilingual children* (Child Language and Child Development, 2), ed. D. K. Oller and R. E. Eilers. Avon, England: Multilingual Matters.
- Genesee, F. 1987. *Learning through two languages*. Cambridge: Newbury House Publishers.
- Genesee, F. 1994. Integrating language and content: Lessons from immersion. *Educational Practice Report* 11: 1–15.
- Genesee, F., ed. 1999. Program alternatives for linguistically diverse students. *Educational Practice Report* 1.
- Genesee, F. 2002. Portrait of the bilingual child. In *Perspectives on the L2 user*, ed. V. Cook, 170–96. Clevedon, England: Multilingual Matters.
- Genesee, F. 2004. What do we know about bilingual education for majority language students. In *Handbook of bilingualism and multiculturalism*, ed. T. K. Bhatia and W. Ritchie, 547–76. Malden, MA: Blackwell.
- Genesee, F. 2007. The suitability of French immersion for students who are at-risk: A review of research evidence. *Canadian Modern Language Review* 63: 655–688.
- Genesee, F., I. Boivin, and E. Nicoladis. 1996. Talking with strangers: A study of bilingual children's communicative competence. *Applied Psycholinguistics* 17: 427–42.
- Genesee, F. and P. Gandara. 1999. Bilingual education programs: A cross-national perspective. *Journal of Social Issues* 55: 665–85.

- Genesee, F., and E. Geva. 2006. Cross-linguistic relationships in working memory, phonological processes, and oral language. In *Developing literacy in second language learners. Report of the National Literacy Panel on Minority-Language Children and Youth*, ed. D. August and T. Shanahan, 175–84. Mahwah, NJ: Lawrence Erlbaum.
- Genesee, F., K. Lindholm-Leary, W. Saunders, and D. Christian. 2005. English language learners in U.S. schools: An overview of research findings. *Journal of Education for Students Placed at Risk* 10(4): 363–85.
- Genesee, F., K. Lindholm-Leary, W. Saunders, and D. Christian. 2006. *Educating English language learners: A synthesis of research evidence*. New York: Cambridge University Press.
- Genesee, F., J. Paradis, and M. Crago. 2004. *Dual language development & disorders: A handbook on bilingualism and second language learning*. Baltimore: Brookes.
- Gersten, R., and J. Woodward. 1995. A longitudinal study of transitional and immersion bilingual education programs in one district. *Elementary School Journal* 95(3): 223–39.
- Geva, E., and F. Genesee. 2006. First-language oral proficiency and second-language literacy, Chapter 8. In *Report of the National Literacy Panel on K–12 Youth and Adolescents*, ed. D. August and T. Shanahan. Mahwah, NJ: Lawrence Erlbaum.
- Glennen, Sharon, and M. Gay Masters. 2002. Typical and atypical development in infants and toddlers adopted in eastern Europe. *American Journal of Speech-Language Pathology* 11: 417–33.
- Gold, N. 2006. *Successful bilingual schools: Six effective programs in California*. San Diego: San Diego County Office of Education.
- Goldstein, B., ed. 2004. *Bilingual language development and disorders in Spanish-English speakers*. Baltimore: Brookes.
- Goldstein, B., K. Harris, and M. Klein. 1993. Assessment of oral storytelling abilities of Latino junior high school students with learning handicaps. *Journal of Learning Disabilities* 26(2): 38–43.
- Gomez, L., D. Freeman, and Y. Freeman. 2005. Dual language education: A promising 50-50 model. *Bilingual Research Journal* 29: 145–64.
- Gonzalez, N., L. C. Moll, and C. Amanti. 2005. *Funds of knowledge: Theorizing practices in households, communities and classrooms*. Mahwah, NJ: Lawrence Erlbaum.
- Gordon, N., and C. Hoxby. 2002. *Achievement effects of bilingual education vs. English vs. English immersion: Evidence from California's Proposition 227* (Working paper). Cambridge, MA: Harvard Institute for Economic Research.



- Greene, J. P. 1998. *A meta-analysis of the effectiveness of bilingual education*. Claremont, CA: Tomas Rivera Policy Institute.
- Greenfield, P. M., B. Quiroz, and C. Raeff. 2000. Cross-cultural conflict and harmony in the social construction of the child. In *The social construction of the child: Nature and sources of variability. New directions in child psychology*, ed. S. Harkness, C. Raeff, and C. M. Super, 93-108. San Francisco: Jossey-Bass.
- Grissom, J. B. 2004. Reclassification of English learners. *Education policy analysis archives* 12(36): 1–38
- Ha, J. H. 2001. Elementary students' written language development in a Korean/English two-way immersion program. Master's thesis, California State University, Long Beach.
- Hakuta, K., Y. Butler, and D. Witt. 2000. *How long does it take English learners to attain proficiency?* University of California Linguistic Minority Research Institute Policy Report 2000–1.
- Hampton, S., J. M. Ekboir, and R. I. Rochin. 1995. The performance of Latinos in rural public schools: A comparative analysis of test scores in grades 3, 6, and 12. *Hispanic Journal of Behavioral Sciences* 17(4): 480–98.
- Hernández-Chavez, E. 1984. The inadequacy of English immersion education as an educational approach for language minority students in the United States. In *Studies on immersion education: A collection for United States educators*. Sacramento: California State Department of Education.
- Hoff, E., and M. Shatz, ed. 2007. *Blackwell handbook of language development*. Malden, MA: Blackwell.
- Howard, E. R. 2003. *Biliteracy development in two-way immersion education programs: A multilevel analysis of the effects of native language and home language use on the development of narrative writing ability in English and Spanish*. PhD diss., Harvard University.
- Howard, E. R., and D. Christian. 1997. *The development of bilingualism and biliteracy in two-way immersion students*. Paper presented at the Annual Meeting of the American Educational Research Association, Chicago, IL (ERIC Document Reproduction Service No. ED 405741).
- Howard, E. R., and D. Christian. 2002. Two-way immersion 101: Designing and implementing a two-way immersion education program at the elementary level. *Educational Practice Report* 9.

- Howard, E. R., D. Christian, and F. Genesee. 2004. *The development of bilingualism and biliteracy from grades 3 to 5: A summary of findings from the CAL/CREDE study of two-way immersion education*. Santa Cruz, CA: Center for Research on Education, Diversity & Excellence and Center for Applied Linguistics.
- Howard, E. R., and J. Sugarman. 2007. *Realizing the vision of two-way immersion: Fostering effective programs and classrooms*. Washington, DC: Delta Systems and ERIC Clearinghouse on Languages and Linguistics.
- Howard, E. R., J. Sugarman, D. Christian, K. J. Lindholm-Leary, and D. Rogers. 2007. *Guiding principles for dual language education*. 2<sup>nd</sup> ed. Washington, DC: U.S. Department of Education and National Clearinghouse for English Language Acquisition.
- Jiménez, R. T. 2000. Literacy and the identity development of Latina/o students. *American Educational Research Journal* 37(4): 971–1000.
- Jimenez, R. T., G. E. Garcia, and P. D. Pearson. 1996. The reading strategies of bilingual Latina/o students who are successful English readers: Opportunities and obstacles. *Reading Research Quarterly* 31: 90–112.
- Kao, G., and M. Tienda. 1995. Optimism and achievement: The educational performance of immigrant youth. *Social Science Quarterly* 76:1–19.
- Kirk Senesac, B. V. 2002. Two-way immersion education: A portrait of quality schooling. *Bilingual Research Journal* 26(1): 85–101.
- Knapp, M. S., and S. Woolverton. 2003. Social class and schooling. In *Handbook of research on multicultural education*. 2<sup>nd</sup> ed., ed. J. Banks and C. A. McGee Banks, 548–69. New York: Jossey Bass.
- Kohnert, K. 2004. Children learning a second language: Processing skills in early sequential bilinguals. In *Bilingual language development and disorders in Spanish-English speakers*, ed. B. Goldstein 53–76. Baltimore: Brookes.
- Kohnert, K., and A. Derr. 2004. Language intervention with bilingual children. In *Bilingual language development and disorders in Spanish-English speakers*, ed. B. Goldstein, 315–43. Baltimore: Brookes.
- Kowal, M., and M. Swain. 1997. From semantic to syntactic processing: How can we promote it in the immersion classroom? In *Immersion education: International perspectives*, ed. R. K. Johnson and M. Swain. New York: Cambridge University Press.
- Lambert, W. E. 1984. An overview of issues in immersion education. In *Studies in immersion education: A collection for United States educators*, 8–30. Sacramento: California State Department of Education.



- Lambert, W. E., and M. Cazabon. 1994. *Students' view of the amigos program* (Research Report No. 11). Santa Cruz, CA: National Center for Research on Cultural Diversity and Second Language Learning.
- Langer, J. A., L. Bartolome, O. Vasquez, and T. Lucas. 1990. Meaning construction in school literacy tasks: A study of bilingual students. *American Educational Research Journal* 27(3): 427–71.
- Lantolf, J. P. 2005. Sociocultural and second language learning research: An exegesis. In *Handbook of research in second language teaching and learning*, ed. E. Hinkel, 335–53. Mahwah, NJ: Lawrence Erlbaum.
- Legaretta, D. 1979. The effects of program models on language acquisition by Spanish-speaking children. *TESOL Quarterly* 8: 521–34.
- Legaretta, D. 1981. Effective use of the primary language in the classroom. In *Schooling and language minority students: An educational framework*, 83–116. Los Angeles: Evaluation, Dissemination, and Assessment Center, California State University.
- Lindholm, K. J. 1980. Bilingual children: Some interpretations of cognitive and linguistic development. In *Children's Language*, Volume II, ed. K. Nelson, New York: Gardner Press.
- Lindholm, K. J. 1987. English question use in Spanish-speaking ESL children: Changes with English language proficiency. *Research in the Teaching of English* 21: 64–91.
- Lindholm, K. J. 1988. *The Edison elementary school bilingual immersion program: Student progress after one year of implementation*. Technical Report No. 9. Los Angeles: Center for Language Education and Research, UCLA.
- Lindholm, K. J. 1994. Promoting positive cross-cultural attitudes and perceived competence in culturally and linguistically diverse classrooms. In *Cultural diversity in schools: From rhetoric to practice*, ed. R. A. DeVillar, C. J. Faltis, and J. P. Cummins. Albany: State University of New York Press.
- Lindholm-Leary, K. J. 2001. *Dual language education*. Avon, England: Multilingual Matters.
- Lindholm-Leary, K. J. 2003. Dual language achievement, proficiency, and attitudes among current high school graduates of two-way programs. *NABE Journal* 26: 20–25.
- Lindholm-Leary, K. J. 2005. The rich promise of two-way immersion. *Educational Leadership* 62: 56–59.

- Lindholm-Leary, K. J. 2007. *Effective features of dual language education programs: A review of research and best practices*. 2<sup>nd</sup> ed. Washington, DC: Center for Applied Linguistics.
- Lindholm-Leary, K. 2008. Dual language education: Hope or hype in the NCLB accountability era? Paper presented at the annual meeting of the California Association for Bilingual Education, San Jose, CA.
- Lindholm-Leary, K. 2009. Language proficiency, achievement and attitudes in two-way Chinese immersion students. Paper presented at the National Association for Bilingual Education, Austin, TX, February 19.
- Lindholm, K. J., and Z. Aclan. 1991. Bilingual proficiency as a bridge to academic achievement: Results from bilingual/immersion programs. *Journal of Education* 173: 99–113.
- Lindholm-Leary, K. J., and N. Block. In press. Achievement in predominantly low-SES Hispanic dual language schools. *International Journal of Bilingual Education*.
- Lindholm-Leary, K. J., and G. Borsato. 2001. Impact of two-way bilingual elementary programs on students' attitudes toward school and college. Research Report No. 10. University of California, Santa Cruz: Center for Research on Education, Diversity & Excellence.
- Lindholm-Leary, K. J., and G. Borsato. 2005. Hispanic high schoolers and mathematics: Follow-up of students who had participated in two-way bilingual elementary programs. *Bilingual Research Journal* 29: 641–52.
- Lindholm-Leary, K., and G. Borsato. 2006. Academic achievement. In *Educating English language learners: A synthesis of research evidence*, ed. F. Genesee, K. Lindholm-Leary, W. Saunders, and D. Christian, 176–221. New York: Cambridge University Press.
- Lindholm-Leary, K. J. and A. Ferrante. 2005 Follow-up study of middle school two-way students: Language proficiency, achievement and attitudes. In *Language in multicultural education*, ed. R. Hoosain and F. Salili. Greenwich, CT: Information Age Publishing
- Lindholm-Leary, K. J., and E. Howard. 2008. Language and academic achievement in two-way immersion programs. In *Pathways to bilingualism: Evolving perspectives on immersion education*, ed. T. Fortune and D. Tedick. Avon, England: Multilingual Matters.
- Long, M. H. 1981. Input, interaction and second language acquisition. In *Native language and foreign language acquisition*, ed. H. Winitz, 379. New York: Annals of The New York Academy of Sciences.

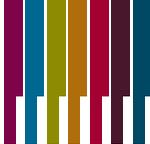


- Lopez, M., and A. Tashakkori. 2006. Differential outcomes of TWBE and TBE on ELLs at different entry levels. *Bilingual Research Journal* 30(1): 81–103.
- Lyster, R. 2007. *Learning and teaching languages through content: A counterbalanced approach*. Philadelphia: John Benjamins.
- MacSwan, J. 2000. The threshold hypothesis, semilingualism, and other contribution to a deficit view of linguistic minorities. *Hispanic Journal of Behavioral Sciences* 22(1): 3–45.
- MacSwan, J. 2004. Bad data poison language study. *The Arizona Republic* (August 13): B9.
- MacSwan, J., and L. Pray. 2005. Learning English bilingually: Age of onset of exposure and rate of acquisition among English language learners in a bilingual education program. *Bilingual Research Journal* 29(3): 653–78.
- MacSwan, J., S. M. Stockford, K. Mahoney, M. S. Thompson, and K. E. DiCerbo. 2002. *Programs for English learners: A longitudinal exploration of program sequences and academic achievement in Arizona*. Tempe: Arizona State University and Arizona Department of Education.
- MacSwan, J., M. S. Thompson, G. deKlerk, and K. McAlister. 2007. Theory, research, and theory-driven research: Explanations of academic achievement differences among English language learners. Paper presented at the University of California Linguistic Minority Research Institute, Arizona State University, Tempe, May 2–5, 2007.
- Maratsos, M. 2000. More overregularizations after all. *Journal of Child Language* 28: 32–54.
- Medina, M., and K. Escamilla. 1992. Evaluation of transitional and maintenance bilingual programs. *Urban Education* 27(3): 263–90.
- Medrano, M. F. 1986. Evaluating the long-term effects of a bilingual education program: A study of Mexican-American students. *Journal of Educational Equity and Leadership* 6(2): 129–38.
- Medrano, M. F. (1988). The effects of bilingual education on reading and mathematics achievement: A longitudinal case study. *Equity and Excellence* 23(4): 17–19.
- Met, M., and E. B. Lorenz. 1997. Lessons from U.S. immersion programs: Two decades of experience. In *Immersion education: International perspectives*, ed. R. K. Johnson and M. Swain, 243–64. Cambridge: Cambridge University Press.

- Miller, F., J. Heilmann, A. Nockerts, A. Iglesias, L. Fabiano, and D. J. Francis. 2006. Oral language and reading in bilingual children. *Learning Disabilities Research & Practice* 21(1): 30–43.
- Montecel, M. R., and J. D. Cortez. 2002. Successful bilingual education programs: Development and the dissemination of criteria to identify promising and exemplary practices in bilingual education at the national level. *Bilingual Research Journal* 26: 1–21.
- Nielsen, F., and S. Lerner. 1986. Language skills and school achievement of bilingual Hispanics. *Social Science Research* 15: 209–40.
- Olneck, M. R. 2004. Immigrants and education. In *Handbook of research on multicultural education*, 2<sup>nd</sup> ed., ed. J. A. Banks and C. A. McGee Banks. New York: Macmillan.
- Padrón, Y. N., and H. C. Waxman. 1988. The effect of ESL students' perceptions of their cognitive reading strategies on reading achievement. *TESOL Quarterly* 22: 146–50.
- Paradis, J. 2005. Grammatical morphology in children learning English as a second language: Implications of similarities with specific language impairment. *Language, Speech, and Hearing Services in Schools* 36: 172–87.
- Parrish, T., R. Linquanti, A. Merickel, H. Quick, J. Laird, and P. Esra. 2006. *Effects of the implementation of Proposition 227 on the education of English learners, K–12: Final report*. San Francisco: WestEd.
- Perez, E. 1981. Oral language competence improves reading skills of Mexican American third graders. *Reading Teacher* 35: 24–27.
- Philips, S. U. 1983. *The invisible culture: Communication in classroom and community on the Warm Springs Indian Reservation*. New York: Longman.
- Potowski, K. 2007. *Language and identity in a dual immersion school*. Clevedon, England: Multilingual Matters.
- Ramirez, J. D. 1992. Longitudinal study of structured English immersion strategy, early-exit and late-exit transitional bilingual education program for language-minority children (Executive Summary). *Bilingual Research Journal* 16(1-2): 1–62.
- Ramos, F. 2007. What do parents think of two-way bilingual education? An analysis of responses. *Journal of Latinos and Education* 6(2): 139–50.
- Reese, L., H. Garnier, R. Gallimore, and C. Goldenberg. 2000. A longitudinal analysis of the ecocultural antecedents of emergent Spanish literacy and subsequent English reading achievement of Spanish-speaking students. *American Educational Research Journal* 37(3): 633–62.

- 
- Restrepo, M. A., and V. F. Gutierrez-Clellen. 2004. Grammatical impairments in Spanish/English-speaking children. In *Language development: A focus on Spanish-English speakers*, ed. B. Goldstein. Baltimore: Brookes.
- Riches, C., and F. Genesee. 2006. Cross-linguistic and cross-modal aspects of literacy development. In *Educating English language learners: A synthesis of research evidence*, ed. F. Genesee, K. Lindholm-Leary, W. Saunders, and D. Christian, 64–108. New York: Cambridge University Press.
- Rogoff, B. 2003. *The cultural nature of human development*. Oxford: Oxford University Press.
- Romaine, S. 1995. *Bilingualism*. 2<sup>nd</sup> ed. Oxford: Blackwell.
- Rolstad, K., K. Mahoney, and G. V. Glass. 2005. The big picture: A meta-analysis of program effectiveness research on English language learners. *Educational Policy* 19: 572–94.
- Rossell, C. H., and K. Baker. 1996. The educational effectiveness of bilingual education. *Research in the Teaching of English* 30(1): 7–74.
- Rumbaut, R., and A. Portes. 2001. *Ethnicities: Children of immigrants in America*. Berkeley: University of California Press.
- Rumberger, R. W., and P. Gándara. 2005. How well are California’s English learners mastering English? *UC LMRI Newsletter* 14(2): 1–2.
- Rumberger, R. W., and K. A. Larson. 1998. Toward explaining differences in educational achievement among Mexican-American language-minority students. *Sociology of Education* 71(1): 68–92.
- Saldate, M., S. Mishra, IV, and M. Medina Jr. 1985. Bilingual instruction and academic achievement: A longitudinal study. *Journal of Instructional Psychology* 12(1): 24–30.
- Saunders, W., and G. O’Brien. 2006. Oral language. In *Educating English language learners: A synthesis of research evidence*, ed. F. Genesee, K. Lindholm-Leary, W. Saunders, and D. Christian, D., 14–63. New York: Cambridge University Press.
- Serrano, R., and E. R. Howard. 2003. Maintaining Spanish proficiency in the United States: The influence of English on the Spanish writing of native Spanish speakers in two-way immersion programs. In *Selected Proceedings of the First Workshop on Spanish Sociolinguistics*, ed. L. Sayahi, 77–88. Somerville, MA: Cascadilla Proceedings Project.

- Serrano, R. and E. R. Howard. 2007. Second language writing development in English and in Spanish in a two-way immersion programme. *International Journal of Bilingual Education and Bilingualism* 10(2): 152–70.
- Shannon, S. M., and M. Milian. 2002. Parents choose dual language programs in Colorado: A survey. *Bilingual Research Journal* 26(3): 681–96.
- Slavin, R., and M. Calderon. 2001. *Effective programs for Latino learners*. Mahwah, NJ: Lawrence Erlbaum.
- Slavin, R., and A. Cheung. 2005. A synthesis of research on reading instruction for English language learners. *Review of Educational Research* 75: 247–84.
- Snow, C. E., M. S. Burns, and P. Griffin. eds. 1998. *Preventing reading difficulties in young children*. Committee on the Prevention of Reading Difficulties in Young Children, Commission on Behavioral and Social Sciences and Education, National Research Council. Washington, DC: National Academy Press.
- Solano-Flores, G., and E. Trumbull. 2003. Examining language in context: The need for new research and practice paradigms in the testing of English language learners. *Educational Researcher* 32(2): 3–13.
- Stipek, D., R. Ryan, and R. Alarcón. 2001. Bridging research and practice to develop a two-way bilingual program. *Early Childhood Research Quarterly* 16(1): 133–49.
- Thomas, W., and B. Collier. 2002. *A national study of school effectiveness for language minority students' long-term academic achievement*. Santa Cruz, CA: Center for Research on Education, Diversity and Excellence.
- Thompson, M., K. DiCerbo, K. Mahoney, and J. MacSwan. 2002. Exito en California? A validity critique of language program evaluations and analyses of English learner test scores. *Education Policy Analysis Archives* 10(7).
- Tomasello, M. 2000. Do young children have adult syntactic competence? *Cognition* 74: 209–53.
- Tse, L. 1998. Ethnic identity formation and its implications for heritage language development. In *Heritage language development*, ed. S. D. Krashen, L. Tse, and J. McQuillan, 15–30. Culver City, CA: Language Education Associates.
- Valdés, G. 1997. The teaching of Spanish to bilingual Spanish-speaking students: Outstanding issues and unanswered questions. In *La enseñanza del español a hispanohablantes Praxis y teoría*, ed. M. C. Colombi and F. X. Alarcon, 93–101. Boston: Houghton Mifflin.



- Valdés, G., and R. Figueroa. 1994. *Bilingualism and testing: A special case of bias*. Norwood, NJ: Ablex Publishing Company.
- Valenzuela, A. 1999. *Subtractive schooling: U.S.-Mexican youth and the politics of caring*. Albany: State University of New York Press.
- Vygotsky, L. 1978. *Mind in society: The development of higher psychological processes*, ed. M. Cole, V. John-Steiner, S. Scribner, and E. Souberman. Cambridge: Harvard University Press.
- Weslander, D., and G. V. Stephany. 1983. Evaluation of English as a second language program for Southeast Asian students. *TESOL Quarterly* 17: 473–80.
- Whatley, E. 1981. Language among black Americans. In *Language in the U.S.A.*, ed. C. A. Ferguson and S. B. Heath, 92-107. Cambridge: Cambridge University Press.
- Willig, A. C. 1985. A meta-analysis of selected studies on the effectiveness of bilingual education. *Review of Educational Research* 55: 269–318.
- Wong Fillmore, L. 1991. When learning a second language means losing the first. *Early Childhood Research Quarterly* 6: 323–34.