

Dual Language Education for All

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Abstract In this chapter key characteristics and the research foundation of dual language schooling (all models—90:10, 50:50, two-way, and one-way) are summarized and contrasted with features of transitional bilingual education, a short-term form of bilingual schooling, developed to serve only English learners. Dual language education (PK-12) is the mainstream curricular program taught through two languages, an enrichment model of schooling designed for all students, including English learners. We have found in our longitudinal research that dual language schooling fully closes the achievement gap for all student groups across ethnicity, social class, and special needs. In our research findings the most powerful outcomes of dual language classes are higher cognitive development as measured by school tests and higher engagement with learning. Dual language education also can result in powerful changes in school districts through innovative teaching practices and administrative reforms. Dual language schooling is rapidly expanding throughout the U.S., as parents and educators acknowledge the need to prepare our students to live and work more effectively as global citizens of the twenty-first century.

Keywords Dual language education · Serving all students together · Cognitive advantages · Closing the achievement gap · Innovative teaching practices · Administrative reforms · Expansion of dual language programs

A phenomenon is currently happening in the United States that no one could have predicted a couple of decades ago—bilingualism is becoming popular. In the 1980s and 1990s, the English-only movement was actively pursuing the agenda of eliminating bilingual schooling for English learners. In the early 1980s the U.S. government significantly reduced the amount of federal funding being used for training bilingual teachers, multilingual curriculum development, and doctoral studies in bilingual education. During these two decades the U.S. media published many

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articles written by authors from the English-only movement, and in the late 1990s three states passed English-only voter initiatives—California, Arizona, and Massachusetts.

California native-English-speaking parents who had enrolled their children in integrated, two-way bilingual schools were quite upset with the passage of Proposition 227 in 1998, since that meant ending their children's bilingual classes. These parents succeeded in establishing a state waiver for two-way bilingual schools, and while the waiver application process was cumbersome, these English-speaking parents were determined to provide bilingual schooling for their children, with the English learners in these schools also benefiting when their parents signed the waiver for their children to attend too.

On top of that development, in the first decade of the 2000s, three states not previously known for having large numbers of English learners—North Carolina, Delaware, and Utah—established statewide initiatives, initially proposed by the governor or state board, to expand dual language education to all school districts, mostly for economic development reasons. These programs for both native English speakers and English learners have grown tremendously in popularity throughout the U.S. as more state governments, urban school districts, and parents have become aware of the benefits for everyone involved. This movement is largely fueled by native-English-speaking parents' demand that public schools provide classes taught through two languages (English plus another language), beginning in preschool or kindergarten and continuing throughout Grades K-12. But as the movement has expanded rapidly throughout all regions of the U.S., this type of schooling—now commonly called “dual language education”—has become a means of appropriately serving culturally and linguistically diverse populations, bringing together students of varied socioeconomic backgrounds, while at the same time satisfying the demands of native-English-speaking families. This chapter examines some of the research foundations and effective practices that lead to well-implemented dual language programs.

Transitional Bilingual Education To understand the essential characteristics of dual language schooling, it helps to briefly review some characteristics of the most common type of bilingual program that existed for English learners before dual language became so popular. Transitional bilingual education was developed in the late 1960s and 1970s to serve English learners' needs. The federal government and 30 states enacted legislation that provided funding for schooling through English learners' home language while they were acquiring English as a second language. These bilingual programs were designed to help students get meaningful access to the curriculum for 2–3 years through their primary language, but these classes isolated students from their native-English-speaking peers and tended to be somewhat remedial in nature. Bilingual teachers provided much needed sociocultural support for their students but there was little monitoring of the proportion of instruction in each language. Also, researchers found many bilingual teachers using translation, code-switching, and repetition of lessons in each language, leading to lost instructional time.

How Long? The biggest problem with transitional bilingual education was discovered when longitudinal studies began to examine the number of years that it takes to reach grade level achievement in second language, an average of 6 years (Collier & Thomas, 2017; Lindholm-Leary, 2001; Thomas & Collier, 1997, 2002, 2012). Policy makers had assumed that 2 or 3 years is a sufficient amount of time for support services for English learners, and students were exited from their transitional bilingual classes within a few years, resulting in half-gap closure or less. Once these students were placed in the English educational mainstream, they were no longer able to close the gap, although they reached higher levels of achievement than their peers who received only ESL support. (See Fig. 1 for an overview of longitudinal research findings from Thomas and Collier on English learners' achievement as measured by norm-referenced tests, depending upon the type of program provided during the elementary school years. A detailed summary of interpretation of this figure is provided in Thomas and Collier (2012, pp. 91–96). A comprehensive syn-

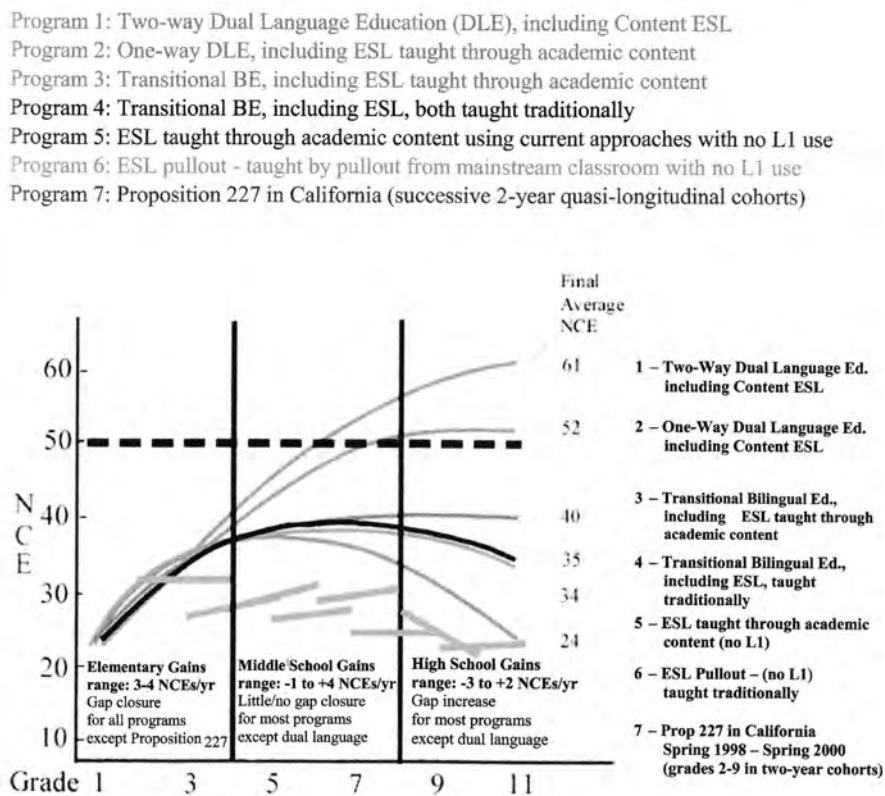


Fig. 1 English learners' long-term K-12 achievement in Normal Curve Equivalents (NCEs) on standardized tests in English reading compared across seven program models (Results aggregated from longitudinal studies of well-implemented, mature programs in five school districts and in California)

thesis of all Thomas and Collier research findings is published in Collier and Thomas (2017).

Current state tests being used for accountability purposes are another way of measuring English learners' progress in English across the school curriculum. In recent years, the Texas Education Agency has collected this information on English learners' performance on the State of Texas Assessments of Academic Readiness (STAAR), along with data on the type of support program in which the students were enrolled. Figures 2, 3, and 4 illustrate the percentage of English learners who reached satisfactory level or above on the Reading, Mathematics, and Writing assessments of the 2015 STAAR. This data shows that two-way and one-way dual language students reach the highest levels of achievement, and students attending either dual language or transitional bilingual classes score significantly higher than their English learner peers who do not receive any support for their native language (those enrolled in ESL, ESL content, and ESL pullout). For example, in Reading the

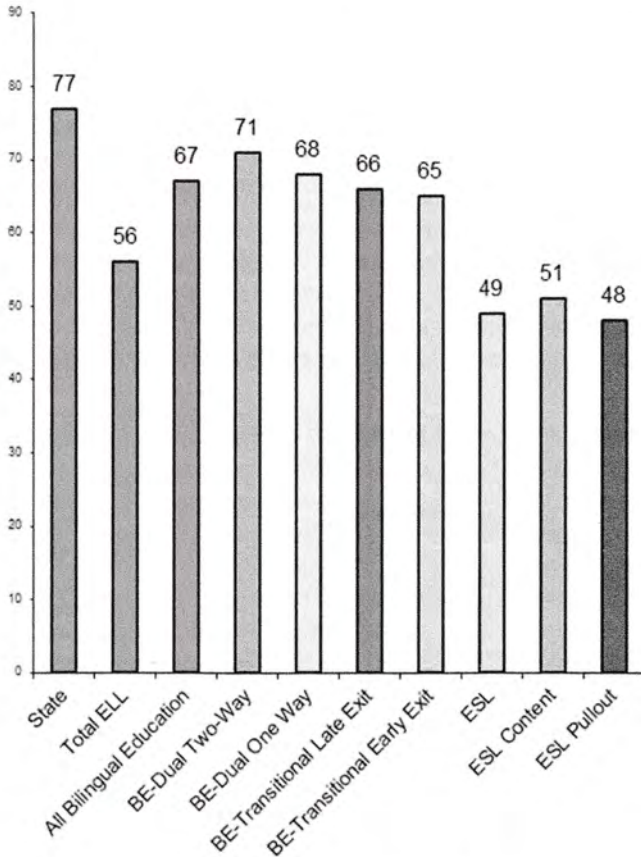


Fig. 2 Texas 2015 staar reading. All grades – % satisfactory or above

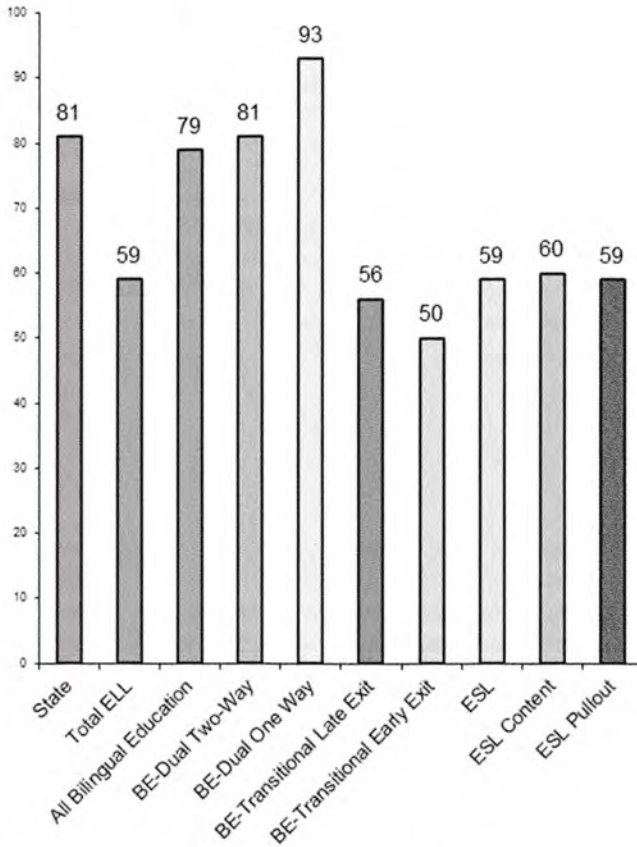


Fig. 3 Texas 2015 staar math. All grades – % satisfactory or above

percentage of “satisfactory and above” performance is in the mid-to-high 60s for bilingual schooling and in the mid-to-high 40s for English-only programs. This is a very large difference in favor of bilingual schooling in general, and for dual language schooling in particular, at 71% passing.

As the research foundation for dual language education has grown, the contrast between characteristics of transitional bilingual programs and dual language schooling that make a big difference in long-term student success are becoming clearer. The combination of native-English-speaking parents’ demands and the growing research base are fueling the movement towards dual language education for all students. Let’s examine some of the key characteristics of dual language schooling that lead to success for all.

English Learners Benefit First of all, dual language education is the mainstream curricular program, taught through two languages. In the United States, English is required and the other instructional language is the choice of the school and the parent community. The research is clear that English learners benefit enormously from

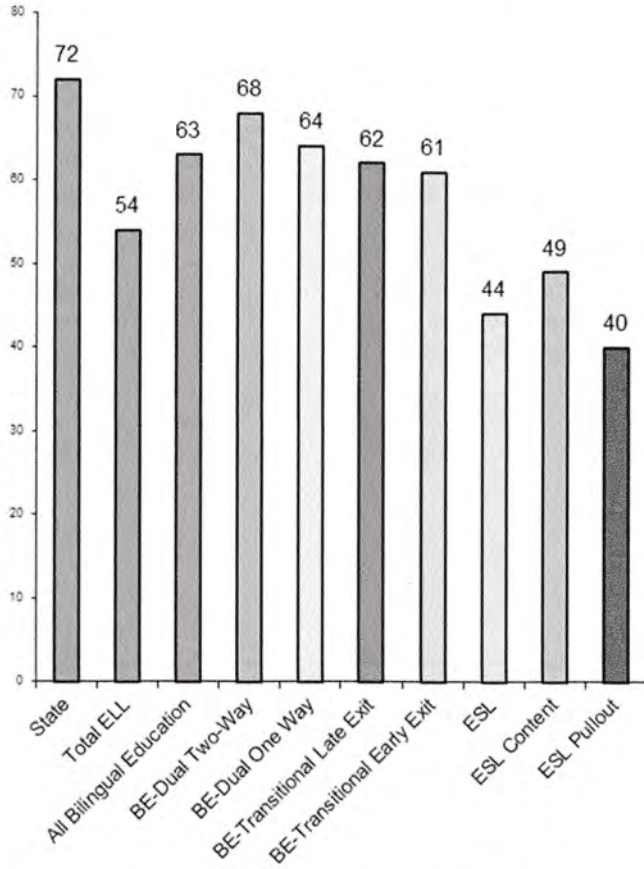


Fig. 4 Texas 2015 staar writing. All grades – % satisfactory or above

this form of bilingual schooling, so most school communities choose the home language of the largest number of English learners, in addition to English. Since Spanish is the primary language of 77% of English learners in the U.S. (*The Condition of Education*, 2017), Spanish-English programs are most commonly chosen. Native-English-speaking parents prefer this language choice, since Spanish is the second largest language of the world after Mandarin Chinese, as defined by number of native speakers (*Ethnologue*, 2017). Also the U.S. is now the second largest Spanish-speaking country in the world, after Mexico (El Instituto Cervantes, 2017).

Parents prefer that their children acquire the new language through interacting with native-Spanish-speaking peers of their children's age. This is the beauty of dual language education—both language groups benefit from the best circumstances for second language acquisition (Krashen, 1981; Wong Fillmore, 1991). These advantages include natural first and second language development, starting at

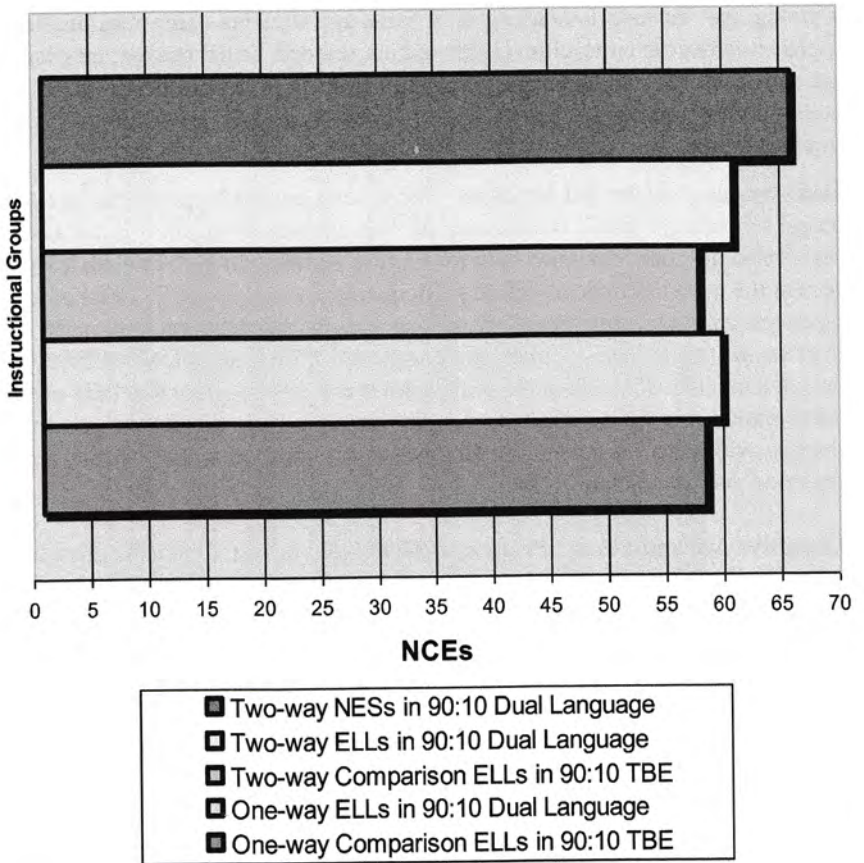
a young age, through interacting with same-age students doing meaningful tasks together across the curriculum (mathematics, science, social studies, language arts, art, music, etc.). Dual language schooling begins in preschool or kindergarten and continues throughout all grades PK-12. Schools usually grow the program one grade at a time.

Dual language Is for All Students The second major characteristic of dual language schooling is that it is for everyone who chooses to enroll. It is not a separate segregated program, designed only for English learners. In fact, English learners do benefit the most dramatically of all participating groups. In our 32 years of longitudinal research analyzing over 7.5 million English learners' records in 36 school districts in 16 U.S. states (Collier & Thomas, 2017; Thomas & Collier, 2012, 2014), we have found that dual language education is the only program that fully closes the achievement gap for all students. English learners have the largest gap to close, starting with zero proficiency in English to reaching grade-level achievement in both first and second languages.

Cognitive Advantages for Proficient Bilinguals In fact, typical English learners attending dual language classes for at least 6 years achieve above-grade-level scores on the state or nationally-normed tests, when tested in both languages. Hundreds of research studies have shown that proficient bilinguals outscore monolinguals on both school and intelligence tests; proficient bilinguals are cognitively advantaged over monolinguals (Baker & Wright, 2017; Collier & Thomas, 2014, 2017). It takes dual language students (of all backgrounds) an average of 6 years to reach grade level in their second language (Collier & Thomas, 2009); whereas English learners in other program types typically do not succeed in reaching grade level achievement in their second language, closing only half or less of the academic achievement gap, and many do not complete high school.

Ethnic Groups' Achievement in Dual Language Programs In the past, Latino students who were tested as "fluent in English" would not have qualified for transitional bilingual education classes. However, when their scores are disaggregated from those of non-Latino native-English speakers they also have an achievement gap to close. When enrolling in dual language classes, Latinos re-connect to their heritage language, become proficient bilinguals, and outscore monolingual English speakers not in dual language. Also, African American students of low-income background in both inner city and agricultural contexts of Texas and North Carolina have dramatically achieved two grades above their peers not in dual language by the middle school years (Thomas & Collier, 2002, 2014).

As can be seen in Figs. 5 and 6, by fifth grade Houston, Texas, public school students attending 90:10 two-way PK-12 dual language programs (green and yellow lines) were significantly above grade level in both Spanish and English on very difficult norm referenced tests (Aprenda and Stanford). These students were mostly of low socioeconomic background (as measured by participation in free and reduced lunch), and three-fourths of the English speakers were of African American



NESs – Native English Speakers

ELLs – English Language Learners

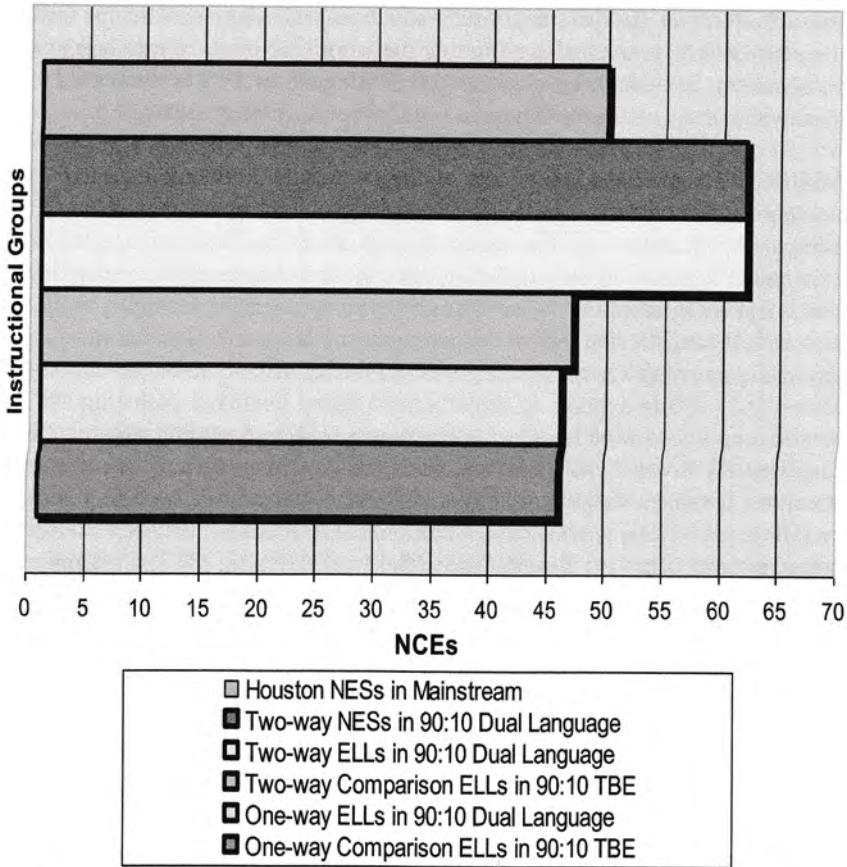
TBE – Transitional Bilingual Education

Comparison – Matched comparison group not in Dual Language

Fig. 5 Houston two-way study 2000. Aprenda total reading at end of grade 5

background (green lines). The African American students even outscored the native Spanish speakers in Spanish!

Other groups that initially test lower than the average, such as students with special needs (such as learning disabilities, speech or health impairment, autism, etc.), also benefit greatly from dual language classes, scoring higher than their peers with similar special needs not in dual language (Thomas & Collier, 2012, 2014). White students and Asian American students also achieve much higher than their peers not in dual language classes (Lindholm-Leary, 2001; Thomas & Collier, 2014).



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Fig. 6 Houston two-way study 2000. Stanford 9 total reading at end of grade 5

Powerful Outcomes of Dual Language Classes In our research findings, the two most powerful outcomes of dual language programs are higher cognitive development as measured by school tests and higher engagement with learning. Student engagement is visible when we visit dual language classes and watch the students deeply involved with their curricular projects and teaching each other. Also dual language students attend school more consistently, experience fewer behavioral referrals, and develop higher self-esteem, confidence, and motivation, in comparison to students not in dual language classes (Lindholm-Leary, 2001; Lindholm-Leary & Borsato, 2006; Thomas & Collier, 2014). When students graduate from

high school, these dual language young adults are receiving scholarships for university study at a high rate and are entering the workforce ready to use their proficient bilingualism. Some have chosen to become bilingual teachers in the school districts from which they graduated (Chapter 7 in Collier & Thomas, 2014).

Additive Bilingualism Also, one of the most powerful outcomes for English learners is that dual language classes solve the problems associated with subtractive bilingualism (Lambert, 1975). Some societies, including many regions of the U.S., have encouraged immigrants and linguistically diverse groups to develop the dominant language by stopping use of their primary language. For example, in the southwest U.S. during the first half of the twentieth century, many Spanish speakers were physically punished for speaking Spanish in school. American Indian children were placed in boarding schools to replace their native language with English. These practices produced what Lambert referred to as subtractive bilingualism, by forcing linguistically diverse groups to lose their heritage language as they acquired the dominant language, English. Lambert also noted that subtractive bilinguals do less well in school. Many studies have examined the relationship between students' first language and cognitive development (Baker & Wright, 2017; Cummins, 1994; Grosjean, 1982). The research shows that additive bilinguals, who acquire their second language while continuing to develop their first language, do exceedingly well in school. When English learners continue to develop cognitively in their first language until at least age 12, they achieve on or above grade level in school. Dual language classes resolve subtractive bilingualism issues—both the native English speakers and English learners become additive bilinguals. Fewer special education referrals are needed and “response to intervention” and other pullout services are no longer required.

Dual Language Non-negotiables There are many “flavors” of dual language education (two-way, one-way, 90:10, 50:50), all of which have the potential to work very well, if the basic non-negotiable components of dual language are followed: (1) at least 50% of the instructional time must be taught in the partner (non-English) language, (2) separation of the two languages for instruction, and (3) PK-12 commitment.

Two-Way “Two-way” and “one-way” are terms used to refer to the demographics of the program. Two-way dual language is the most integrated model, in which two language groups are schooled through their two languages—for example, native English speakers work together with native Spanish speakers. The most important rule for two-way programs is that the two language groups work together at all times—this is the power of this model, because the students teach each other. In particular, if the two language groups are separated to teach reading in the students' native language, this significantly reduces the effectiveness of two-way dual language classes and lowers test scores. When both groups stay together at all times, they teach each other, including serving as peer teachers for developing reading in their L2.

One-Way The demographic situation where only one language group is attending dual language classes is called “one-way.” For example, one-way dual language is the common demographic pattern for U.S. school districts close to the border of Mexico, with fewer native English speakers present. The term one-way can also be applied to programs that include only native English speakers, but we are not reviewing those programs in this chapter, since this book focuses on serving linguistically and culturally diverse student populations. One-way dual language programs in the border areas of Texas are flourishing, as students from these programs increasingly do better in school and graduate at significantly higher rates. English-only perspectives still exist in these regions, so it can be difficult to maintain the school leadership needed to sustain dual language classes, but the school districts that have succeeded in long-term dual language schooling are experiencing great success.

90:10 The other “flavors” of dual language—90:10 and 50:50—involve the percentage of time spent in each language in the early grades. The 90:10 model was developed in Canada, for monolingual English speaking students to jump-start their acquisition of French in kindergarten and first grade, by studying 90% in French and 10% in English for the first 2 years of school, followed by gradually increasing English time until the proportion is 50:50 by fourth grade. This model teaches reading in the non-English language first, with formal English reading and writing introduced in second grade. If the classes are two-way, both language groups learn to read in the non-English language first, always working together. This focus on the partner language first is important to provide nonstop cognitive development in L1 for the English learners, which leads to better long-term acquisition of English. The extra partner language at the beginning also helps native English speakers jump-start their L2 acquisition at no cost to L1 development, since they typically have less access to L2 outside of school but plenty of access to English.

50:50 The 50:50 model develops both languages equally each year of school. Because of the tendency for English (the dominant language) to get more emphasis, it is very important to examine all the minutes of a school day, including the specials (art, music, health, physical education, computer lab, etc.), and make sure that half of the total school time is provided in the non-English language. This is the main challenge with the 50:50 model—to provide enough instructional time in the non-English language so that students develop full academic proficiency and maximize cognitive stimulation in that language, because they get less support for it outside of school. While we have found that the 90:10 model is slightly more efficient at getting students to grade level in both languages sooner (Collier & Thomas, 2009), both the 50:50 and 90:10 models are in the long term equally powerful.

Two Teachers Teaming Together Separation of the two languages is another important component of dual language schooling, to be handled with sensitivity to the nuances of this issue. The most practical way to resolve this is by having two teachers team together, sharing two classes, with one teacher teaching in English and the other teaching in the partner language and switching classes as appropriate.

Sharing two classes makes team teaching cost-effective by maintaining the normal student-teacher ratio. In states such as North Carolina where there are fewer bilingual teachers, they have trained the English-medium teachers to use second language (ESL) teaching strategies, while partnering with, for example, a Spanish-medium teacher. (In NC, dual language programs are available in Cherokee, Chinese, French, German, Greek, Japanese, and Spanish.) When the students walk into the other classroom, they know that they must switch to the other instructional language. Team teaching also resolves the issue of the teacher's academic proficiency in the instructional language, by each teacher providing instruction in his/her strongest language.

One Bilingual Teacher In states such as Texas, there are a greater number of proficient bilingual teachers who may teach in a self-contained classroom, serving as the teacher for both languages. One teacher providing instruction through both languages can result in both advantages and disadvantages. It is very important that the teacher maintain the principle of separation of the languages, by time of day or by subject, during the first years of the students' development of their new language. If translation or code-switching is used by the teacher, students come to expect that something they don't understand will be repeated in their primary language, and they lose significant amounts of instructional time because they're not paying attention all the time, leading to less development of the second language. During the first couple of years of the program (Grades K-1), students in a dual language class are allowed to respond in either language (for their comfort zone), but once students have developed enough proficiency in their second language, they should also be able to use the two languages separately. At the same time, as students move along in their development of the two languages, it is important that teachers use bridging between the two languages, to compare and contrast issues in vocabulary and reading and writing, so that students make use of transfer strategies (Beeman & Urow, 2013).

Dual Language Changes Teaching Practices Dual language education is so powerful that it is changing teaching and administrative practices in many school districts (Thomas & Collier, 2017). Teachers in dual language classes must teach very heterogeneous groups of students. Students come from many different socioeconomic backgrounds, and they are culturally and linguistically diverse. Most students in each class have reached varying levels of proficiency in the language of instruction, and immigrant students vary in how much formal schooling they may have received.

To manage these diverse needs, teachers must follow the most up-to-date, innovative, research-based methods of teaching. Cooperative learning is the most important foundation for work in pairs, small groups, and learning centers. As lessons proceed, with the teachers modeling routines and procedures, the teachers must provide lots of clues to meaning through mime, gestures, pictures, word charts, chants, music, movement, graphic organizers, and many more strategies, with peer teaching serving the important role of cognitive development through problem solv-

ing and critical thinking across the curriculum. Team teaching also requires coordination and planning, but two heads are better than one for developing innovative teaching strategies and responding to the needs of students.

Dual Language Administrative Reforms As part of program start-up, school leaders must be prepared to provide financial resources for curricular materials in the partner language, a system for finding qualified, certified, academically proficient bilingual teachers, and lots of professional development for teachers to improve their research-supported dual language teaching practices. Central administrators must provide planning and support across feeder schools as the program grows grade by grade, K-12. With this two-way dual language innovation, the directors of world languages and ESOL/bilingual services for English learners must work together and coordinate funding of the program. Since this is a mainstream program, all curricular heads are responsible for understanding the program and sharing resources and joint curricular decisions regarding textbooks in the partner language as well as in English.

Dual Language Expansion As dual language programs expand to all regions of the United States, this type of schooling often starts in one school and then, as other principals see the changes that occur, including test scores improving, they choose to add dual language classes to their schools too. Sometimes the program is implemented district-wide, when the superintendent decides to advocate for dual language classes for all. When this happens, the biggest challenge is finding the qualified bilingual teachers to grow the program grade by grade. A few states have provided some resources and support services at the state level (Delaware, North Carolina and Utah) to encourage the expansion of dual language programs. The Texas state legislature in 2001 endorsed dual language education as a means of graduating more bilingual/biliterate young adults to strengthen the workforce and the state economy.

States Implementing Dual Language Programs; the Biliteracy Seal Dual language programs are spreading in Alaska, California, Colorado, Connecticut, Delaware, the District of Columbia, Florida, Hawaii, Illinois, Louisiana, Massachusetts, Minnesota, New Jersey, New Mexico, New York, Nevada, North Carolina, Oregon, Texas, Utah, Virginia, Washington, and Wisconsin. All of these states have also passed legislation to establish requirements for a Biliteracy Seal to be awarded on a high school diploma, for students who can demonstrate academic proficiency in two languages, and many other states are preparing to join this movement. Representative Roberto Alonzo, who introduced the Texas legislation for the Biliteracy Seal passed in 2014, says “The benefits of having this recognition seal are abundant in this dynamic country of many bilingually populated cities. This Bill truly helps students reach their maximum potential in education.”

California was the first state to develop the Biliteracy Seal in 2011, even while the English-only Proposition 227 was still in place. In November, 2016, California voters passed Proposition 58, modifying Proposition 227 by giving schools choice

to develop the programs that their communities want, ending the requirement for English-only instruction for English learners. During the two decades of English-only for English learners, two-way dual language schools in California multiplied so that there are now over 400 two-way schools and more being developed with the passage of Proposition 58. In 2017 Massachusetts passed similar legislation, ending the English-only requirements of the voter referendum of 2002 in that state.

Languages of Dual Language Programs in the U.S. We estimate that currently there may be 2500 or more two-way dual language public schools in the U.S. with many more being developed each year. The website “DualLanguageSchools.org” (2019) has registered 1702 dual language schools as of 2019. In many of the states listed, we are aware of twice as many as have registered. The majority of these programs are Spanish-English because Spanish speakers are the largest language group in the U.S. In addition, there are U.S. dual language programs taught in English and Arabic, Armenian, Cantonese, Filipino, French, German, Greek, Haitian Creole, Hebrew, Hmong, Italian, Japanese, Khmer, Korean, Mandarin Chinese, Polish, Portuguese, Russian, Ukrainian, Urdu, and Vietnamese, and the list is growing every year. Dual language programs are also provided in the following American Indian languages: Arapahoe, Cherokee, Crow, Diné (Navajo), Hoopa, Inupiaq, Keres, Lakota, Nahuatl, Ojibwe, Passamaquoddy, Shoshoni, Ute, and Yurok (Center for Applied Linguistics, 2019; U.S. Department of Education, 2015).

Dual language education for all students is a reform of U.S. education whose time has come. Through this type of bilingual schooling, we are preparing students to live and work more effectively and “connectedly” as global citizens of the twenty-first century.

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