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Bilingual education in the United States: an historical overview and examination of two-way immersion

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Dramatic increases have occurred in the number of children who speak languages other than English at home in the United States and English language learners (ELLs) need support both for becoming proficient in English and for maintaining their first language. In this paper, five types of bilingual education implemented in the United States are reviewed: submersion, English as a second language instruction; transitional bilingual education; maintenance bilingual education; two-way immersion (TWI), with TWI programs being the focus for most of the paper. A brief history of the policy evolution of bilingual education in the United States is provided. Research reviewed suggests that compared to students exposed to other programs, students in TWI programs are better off in terms of achievement and in L1 and L2 development. Although benefits of TWI programs are demonstrated, limitations of the current research also exist, and are discussed. Challenges implementing TWI programs are discussed and policy recommendation are included.

Keywords: bilingual education; immigrants/migrants; language; children

The percent of individuals in the United States whose first language is something other than English has risen dramatically in recent decades. According to Census Bureau estimates, the number was 31.8 million in 1990 and 47 million in the year 2000, which is equivalent to approximately one out of every five people, or 18% of the population (Shin and Bruno 2003). Children constitute a large portion of this subgroup of the US population. In 2007–2008, it was estimated that English language learners (ELLs) made up 10.7% of the public school student population – over 5.3 million children (NCELA 2010). Further, the number of language-minority children grew 53.25% from 1997–1998 to 2007–2008, compared to an increase of 8.45% for the general student population during that same time frame (NCELA 2010). The majority of these children come from families where the dominant language spoken is Spanish (73.1%), though this is just one of about 150 languages spoken by students in US schools (Batalova and McHugh 2010).

ELLs, partly due to the increased probability of living in poverty and having low parental education, often struggle in the US education system, performing lower than their English-speaking counterparts in academic subject areas and on standardized assessments of math and reading (August 2003; Beal, Adams, and Cohen 2010).

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Thus, effective ways of educating language-minority children are desired to ensure that they are equipped with the tools necessary to become thriving members of US society. Bilingual education has long been a controversial topic in the United States, touching on multiple complex political, cultural, language, sociological, educational, ethical, and identity issues (Salomone 2010). The current paper provides an overview of models for educating language-minority children in the United States, and shows the evolution of such programs with respect to significant historical policy developments and issues. Further, this paper emphasizes a promising bilingual education model that has been gaining popularity in recent years, namely two-way immersion (TWI).

Researchers and educators face several challenges when discussing bilingual education services provided to ELLs. These include discrepant terminology and disagreement on definitions and differing implementation of program models across states and regions. At a basic level, researchers and policy-makers do not agree on the label for this population of children. Under federal law, these children are referred to as “Limited English Proficient” or LEP students (Genesee 2006). However, this label has been criticized as focusing on what the child is lacking, and drawing attention away from the value of the child’s native language (Lacelle-Peterson and Rivera 1994). To address this problem, contemporary researchers use alternative labels, including “English language learner” (ELL), “Dual language learner” (DLL), and “language-minority student.”

The labels used for services provided to ELLs also vary, with all kinds of different services being called “bilingual education.” For instance, programs in which ELL children are mainstreamed into all-English classrooms, programs where ELLs receive instruction in both English and Spanish, and programs in which all students (both ELLs and native speakers of English) are instructed in both English and Spanish, are all described as “bilingual education.” This wide variability in educational services for ELLs creates difficulty for researchers and practitioners attempting to assess the effectiveness of these services (Baker and Jones 1998; Garcia and Kleifgen, 2010).

Bilingual education program models

Several approaches to ELL education have been implemented over the years, with varying degrees of success reported. These models for bilingual education can be thought of as on a continuum, depending on the relative importance that the program places on the native language of ELLs. There are five dominant models along this continuum that will be described in this paper: (1) submersion; (2) English as second language (ESL) instruction; (3) early-exit or transitional bilingual education (TBE); (4) late-exit, developmental, or maintenance bilingual education; (5) TWI (Baker 2006). The characteristics of each educational approach, as well as research findings on the effectiveness of each approach will be examined.

The first approach is known as “submersion.” With this model, ELLs are not offered any special language services, and instruction is entirely in English. This is often referred to as the “sink or swim” approach. Submersion programs were originally designed so that ELLs would “pick up” the dominant language as quickly as possible by being exposed to nothing else (Crawford 1999). Another version of submersion programs is structured immersion, where students are given native language instruction for a one-year transition period, and then move into an all-English

classroom environment. Much research has demonstrated that this model is not effective at helping language-minority students to catch up to their native English-speaking peers in terms of English language knowledge and academic performance (Cheung and Slavin 2013; Crawford 1999; Thomas and Collier 1997). Zehler et al. (2003) showed that about 11.7% of ELLs nationwide receive no specialized language services in school. This model is more likely to be found in areas with few language-minority students (e.g. rural areas of the United States) and/or where resources for serving ELL students are quite limited.

The next approach is known as ESL or English for Speakers of Other Languages (ESOL) instruction. This model involves individualized instruction that focuses on acquisition of English language skills (Vialpando et al. 2005). However, in several school districts, ESL/ESOL instruction is the only type of service provided to ELLs. “ESL pull-out” involves removing ELLs from the mainstream classroom for a portion of the day to receive individualized instruction with an ESL teacher. This method is more common in elementary schools. Once children progress to middle school, the “ESL class period” is more common, where one class period is devoted to English language instruction for ELLs (Rennie 1993). Depending on their needs and the school’s academic offerings, students may also attend some content area classes with their native English-speaking peers. Another model is known as “ESL push-in,” where an ESL teacher works with the ELL student in the larger mainstream classroom setting (Freeman 2007). This model of instruction can be useful when several minority languages are represented within a school (Vialpando et al. 2005). The idea behind this program model is again to help ELLs acquire English as quickly as possible. However, unlike submersion, this model recognizes the need for individualized instruction to help ELLs catch up, but without any instruction provided in their native language. Research on ESL-only instruction has indicated that it takes children anywhere from four to nine years to acquire English skills at grade level (Thomas and Collier 1997). Zehler et al.’s (2003) study on services received by ELLs indicated that about 60% of ELLs receive some ESL instruction such as that described earlier.

The third approach to educating ELLs, and the most common of the truly “bilingual” models where two languages are actually used in the classroom (Freeman 2007), is known as “early exit” or “transitional bilingual education” (TBE). Like the earlier models, these programs focus on helping ELLs acquire English as quickly as possible. Students are instructed in both their native language and English for a few years, but the use of the native language in the classroom is phased out beyond second or third grade (Vialpando et al. 2005). The reason for the fade out is the belief that students should not be too reliant on their native language throughout formal schooling or they will not become fully proficient in English (Ochoa and Rhodes 2005). Research with second-grade students showed that language-minority students in TBE programs outperform their counterparts in ESL-only programs (Sheffield 2007). This may be because students’ native language competence was enhanced via the TBE program, which in turn helped them learn English (August et al. 2005). TBE programs are likely to be found in school districts where the population of ELLs is smaller or the availability of bilingual teachers is limited. According to Zehler et al. (2003), about 20% of ELLs receive a fair amount of instruction in their native language, most likely in a TBE program.

The fourth program type, known as “late exit,” “maintenance,” or “developmental bilingual” education, differs from TBE in that ELLs receive a substantial portion

of educational instruction in their native language, which continues for several years of schooling (Vialpando et al. 2005). As the label indicates, these programs developed due to growing recognition of the importance of maintaining the native language of ELLs (De Jong and Howard 2009). The goal is to develop both languages equally (additive bilingualism) so as not to lose language one (L1) but rather, use it to support language 2 (L2). Research has found more positive results for maintenance programs compared to other program models. When comparing the performance of students in an English immersion, TBE, or maintenance program, students in maintenance programs demonstrated higher academic performance (Ramirez, Yuen, and Ramey 1991). Further, Thomas and Collier (2002) argued that it takes four years at the minimum, but most likely longer, for a language-minority student to attain grade-level performance in English, depending on the student's background prior to beginning school in the United States. In light of these findings, a more intense bilingual education experience, known as TWI, has been gaining popularity in recent years. Before discussing this model, a brief history of bilingual education in the United States will be provided to show the gradual evolution toward TWI.

A brief history of bilingual education in the United States: social and political evolution

The style of bilingual education offered to ELLs, and views on the effectiveness of bilingual education in general, have undergone much evolution in recent decades. In 1968, Congress passed an amendment under Title VII of the Elementary and Secondary Education Act (ESEA) of 1965 (Public Law 89-10 1965) known as the Bilingual Education Act (Baker 2006). This amendment provided funds for the establishment of bilingual programs for ELLs. Originally, Title VII did not require schools receiving funds to actually use a second language in the classroom (Crawford 1999). Special interest groups and advocates began voicing concerns that the rights of language-minority children under the Civil Rights Act of 1964 (Public Law 88-352 1964) were being violated in terms of discrimination within the public school system. After much debate in lower court systems, the US Supreme Court ruled in the landmark case *Lau v Nichols* (1974) that children who did not understand the language of instruction were being denied equal treatment in the school system. This decision significantly reduced the use of the “sink or swim” approach to education for ELLs and helped bring about further legislation to ensure that ELLs received services to help them succeed (Crawford 1999).

In more recent political history, Title III of the No Child Left Behind (NCLB) Act of 2001 (Public Law 107-110 2001) contained language specifying that schools should have educational programs focused on developing English language proficiency for LEP students. The Act further states that these programs should be preparing LEP students for entrance into all-English instructional environments (Kuenzi 2007). In a Congressional Research Service (CRS) report for Congress, Kuenzi (2007) pointed out that NCLB also “removes language in Title VII that encouraged bilingual instruction methods” (p. i). This landmark legislation once again drew the nation's attention to acquiring English as the primary goal of bilingual education services, viewing native language maintenance as secondary.

At about this same time, the “English Only Movement” was gaining in popularity. For instance, House Resolution 123, known as the “Language of

Government Bill,” passed the House in 1996, but failed in the Senate (Crawford 1997). Essentially, this bill would have declared English as the official language for the US government. What was more significant was the passage of Proposition 227 (1998) in California. This legislation, also known as the “English for Children” initiative, banned the use of bilingual teaching methods and/or the use of a language other than English to instruct students in California public schools (Garcia and Curry-Rodriguez 2000). Voters of California were given the option to choose either the continuation of bilingual education programs in their state, or to change the education model to a “structured immersion” approach. The structured immersion approach won in the polls. This approach provides language-minority students with instruction in their native language for a maximum of one year. Following this year, the students are moved into mainstream English classrooms (Garcia and Curry-Rodriguez 2000).

English-only legislation like Proposition 227 disregards the importance of a student’s native language in their educational experience. This movement comes close to placing language-minority students back in the “sink or swim” situation in the era prior to the passage of the Bilingual Education Act. This movement also implies that the majority English-speaking population knows what is “best” for language minorities in terms of educational experiences (Mora 2006). Despite its passage, supporters of bilingual education were able to find loopholes in the legislation allowing them to continue many effective bilingual programs in the state (i.e. what was meant by teaching the school curriculum “overwhelmingly” in English was not specified, so some schools took this to mean that 60% of instruction in English was sufficient) (Crawford 2000).

Beginning in 2000, a five-year longitudinal study began on the long-term effects of Proposition 227 (Parrish et al. 2006). About 600,000 children in California including ELLs (11–36.4%, depending on the grade and the year) were assessed in various academic subjects. Researchers concluded that ELLs in California schools made some academic gains, but performance gaps between ELLs and native English-speakers continue to persist. The researchers pointed out that it is difficult to determine the effectiveness of English immersion compared to bilingual education due to inconsistent definitions and difficulty with tracking individual students (Parrish et al. 2006).

Following the passage of Propostion 227, similar legislation was passed in Arizona, but with tighter regulations and fewer loopholes. Proposition 203, or “English for the Children,” passed in 2000. It effectively led to the dissolution of many bilingual programs in Arizona, though some school districts again managed to find ways around the law (Crawford 2000). Massachusetts voters were given the option to effectively end bilingual education in that state with Question 2, which appeared on the 2002 ballot (Massachusetts Session Laws ch. 386, § 4 2002). Once passed, this initiative ended bilingual programs and required ELLs to undergo a short period of English immersion (not to last longer than one year), and then be transitioned into all-English classrooms. Supporters of bilingual education have turned to more comprehensive teaching approaches to demonstrate that bilingual education is indeed effective and has positive benefits for children. Thus, TWI programs, the last model discussed in this paper, emerged.

The two-way immersion (TWI) program model

TWI programs use two languages to reach the same standard level of education as mainstream classrooms. The TWI program model is also known as “dual language education,” “bilingual immersion,” and “Spanish immersion” (depending on the partner language) (Lindholm-Leary 2001) and these terms are often used interchangeably, although the implementation of the program may differ slightly from district to district. TWI programs involve combining both native speakers of English interested in learning a second language, and language-minority students in the process of acquiring English, in the same classrooms learning throughout the day taught in both languages. In the United States, the two languages most often involved in TWI programs are English and Spanish (Howard and Sugarman 2001). This program is designed to help language-minority students achieve additive bilingualism, as well as to help native English-speaking students acquire second language skills in a natural way (Palmer 2008). TWI programs in the United States were modeled somewhat off the Canadian French immersion program for native English-speaking students, which started in 1965 (Genesee 2004). The Canadian program showed successful academic results not only for language-minority students but also for mainstream students (Genesee 2011). TWI programs can start as early as pre-kindergarten, and most run for at least five years, some all the way through grade 12, but most TWI programs are found in elementary schools which is the age range involved in most of the research discussed later, unless otherwise noted (CAL n.d.).

The two most common models of TWI include “90:10” and “50:50.” In the 90:10 model, also called “full immersion,” students study subjects in the minority language through second grade for 90% of the time. When they reach third grade, they transition to a setting in which both groups of children (ELLs and English speakers) receive half of their education in English and the other half in the minority language. Conversely, with the 50:50 model, or “partial immersion,” students have lessons half in English and half in the partner language from kindergarten forward (Howard and Sugarman 2001). According to a survey conducted by the Center for Applied Linguistics (CAL; Howard and Sugarman 2001), the 90:10 model is used in about 42% of schools that employ the TWI model, while 33% of the schools using the TWI model employ the 50:50 approach.

The number of TWI programs has been growing rapidly since the 1980s (CAL 2010a). This is largely due to the sharp increase of foreign-born individuals in the United States (Shin and Bruno 2003). However, in areas where the majority of immigrants share a common language (i.e. Spanish), TWI programs seem to be much more in consideration, as one of the prerequisites for running such a program is to have enough students from the same minority language group to form half of the classroom. A state or a county where one ethnic group is already clustered together in a concentrated area, such as Chinatown in New York or Koreatown in Los Angeles, provides an easy inroad for starting a TWI program. As of 2010, a total of 372 TWI programs were serving language-minority and native English-speaking students (CAL 2010a). With almost 10 different minority languages paired with English, TWI programs have benefited children from early elementary to high school across 28 states. Of these, California currently boasts the most TWI programs (despite the passage of Proposition 227). The uneven distribution of these programs across states is likely due to the relative location/distribution of various ethnic/immigrant groups.

A recent evaluation of dual-language programs viewed TWI programs as successful (Howard, Christian, and Genesee 2004; Lindholm-Leary 2001, 2005). The vast majority of the studies on the academic and linguistic outcomes of children who attended TWI programs finds positive results across developmental domains, language groups, and ages from preschool to 11th grade (Alanis 2000; Barnett et al. 2007; Thomas and Collier 2000, 2002).

The positive effects of TWI can be seen as early as preschool. In one study, three- and four-year-old children whose home language was either English or Spanish were randomly assigned to either TWI or English immersion (EI) preschools. The two groups were not different from each other in language, literacy, and math when tested in English at the beginning and at the end of preschool. However, the TWI group showed large gains in Spanish vocabulary compared to the EI group (Barnett et al. 2007). This study demonstrated that young language-minority students in TWI programs can reach native-like proficiency in English, while improving in their home language as well, demonstrating that one can create an additive bilingual educational environment for language-minority children even in the early childhood years.

In a three-year longitudinal study from third to fifth grade, Howard, Christian, and Genesee (2004) compared English and Spanish language skills in writing, reading, and oral proficiency for 344 students (English speakers and Spanish speakers) from 11 TWI programs across the United States. Scores on writing, reading comprehension, and oral proficiency demonstrated that both groups improved over time in both English and Spanish. However, native speakers of English made more progress in developing Spanish skills than speakers of Spanish did in English growth, but this gap in L2 progress between Spanish speakers and English speakers closed by the end of fifth grade. In this sample, the Spanish-speaking group was more likely to be in poverty (qualify for free/reduced lunch) and have lower maternal education than the native English-speaking group. Given that their analyses did not control for socio-economic status, it is promising that Spanish speakers still performed as well as English speakers in the TWI program (Howard, Christian, and Genesee 2004).

Another study by Alanis (2000) examined the effectiveness of a TWI program with 56 Mexican-American fifth graders (79% native Spanish-speakers and the rest, native English-speakers), compared with those who went to an English-only program. TWI children equaled or exceeded both English-speaking and Spanish-speaking participants in the English-only program on the standardized Texas Assessment of Academic Skills.

Studies have indicated that TWI programs are especially effective in promoting language proficiency, academic achievement, and positive attitudes toward school (Lindholm-Leary 2001; Thomas and Collier 2002). TWI students not only reach a level of native-like English proficiency in both receptive and productive skills (Johnson and Swain 1997), but also maintain their first language competence more than students in submersion or ESL programs (Johnstone 2002; Swain and Lapkin 1991), so these benefits do not come at the cost of ELLs' proficiency in their native language (Garcia and Kleifgen 2010; Genesee 1983).

A large evaluation of dual language programs was conducted by Lindholm-Leary (2001). She compared 18 schools (mostly in California) using 4854 students across English-only (EO), TBE, 90:10 TWI, and 50:50 TWI programs from kindergarten through sixth grade. Oral proficiency in Spanish and English and academic achievement in reading and math were measured as outcomes. Teachers rated

students' English and Spanish oral proficiency in the spring. Schools administered different academic achievement tests, making it difficult to compare across schools. Thus, normal curve equivalents (NCEs) were used for standardized comparison.

Both English-speaking and Spanish-speaking students in the TWI program (90:10 and 50:50) showed significant growth in their L1 and L2, reaching almost near-top scores for the language assessments. Importantly, English scores for native English-speakers in TWI programs were at the level of those in the EO program. Spanish scores for native Spanish-speakers in the 90:10 models were higher than those students in 50:50 and TBE programs. However, for L2 proficiency, native Spanish speakers performed better than native English speakers. Spanish speakers in TBE programs initially outperformed Spanish-speaking students in both 90:10 and 50:10 TWI programs on English assessments, but the students in TWI programs surpassed TBE program students in English after fifth grade. Overall, results indicated significant growth in both L1 and L2 from kindergarten to sixth grade for the students in the TWI programs.

In terms of reading achievement, students made significant progress over time both for L1 and L2, and progress differed by program types. English-speaking students in TWI programs scored higher than California State averages in English reading, and Spanish-speaking students in TWI programs scored similarly or higher than California State students' average scores in Spanish reading achievement. However, low-socio-economic status Spanish-speaking students attending the 90:10 program performed below grade level in Spanish reading, just like Spanish speakers in TBE and EO programs. For native English speakers in 90:10 programs, high-socio-economic status students performed better in Spanish reading achievement than low-socio-economic status students. Spanish speakers in TWI programs lagged behind grade level for L2 English reading achievement but they caught up by sixth grade.

Finally, both English speakers and Spanish speakers in TWI programs were average in math, comparing their NCE to state criteria in L1, but the English speakers performed better than the Spanish speakers when tested in L2. Although students who were attending 90:10 programs received math instruction in Spanish until third grade, when tested in English, they scored similar to students in the 50:50 models who received math instruction in English. Spanish-speakers in both TWI programs performed better than those who attended TBE or EO programs, no matter which language they were tested in for math (Lindholm-Leary 2001).

Thomas and Collier (1997) argue that to promote the best developmental outcomes for ELLs, language, cognitive, socio-cultural, and academic development should take place all together both in L1 and L2, as opposed to taking place separately. Thomas and Collier (1997, 2000, 2002) conducted a longitudinal study from 1982 to 1996 involving 42,317 students. They generated a growth pattern of ELLs' English language proficiency throughout four different bilingual programs: ESL pull-out, TBE, maintenance bilingual education, and TWI. The majority of the participants had up to eight years of cumulative information. While students in the ESL pull-out program showed the lowest performance of all the groups from kindergarten to 11th grade, students in the TWI program were the most successful in terms of English language proficiency by grade 11. ELLs started at the 23rd to 24th percentile in NCEs in first grade, regardless of program type, and group differences emerged by secondary school. The students in TBE reached the 40th percentile by the end of 11th grade, whereas those in the TWI program reached the 61st percentile. Students in the ESL pull-out program progressed to about the 38th

percentile by sixth grade, but their English scores fell back to the 24th percentile by the end of 11th grade. Thomas and Collier (2002) concluded that, for language-minority students, elementary school TWI was the optimal program for promoting long-term academic success. Those students maintained their first language, and also developed their cognitive and academic skills while learning a second language. These studies, however, do not mention whether controls were in place for ethnicity or socio-economic status within the analyses.

In TWI programs, being bilingual does not come at the cost of academic achievement. Children become relatively bilingual while maintaining academic performance as high as children in English-only programs (Lindholm-Leary 2005). Most researchers agree that the immersion programs do not impede other academic areas, such as math and history (Alanis 2000; Johnstone 2002; Lindholm-Leary 2001). Further, any fears of learning being delayed due to language confusion are unfounded. Thomas, Collier, and Abbott (1993) conducted an evaluation on an immersion program in Virginia. Academic performance of students experiencing the immersion program (native English-speakers receiving instruction in a minority language) was compared to a group of similar peers not in an immersion program. Results indicated that, after two years in the program, immersion students performed just as well as their counterparts on measures of academic achievement and cognitive ability, indicating that acquisition of the second language did not slow academic development. Immersion students actually outperformed their counterparts in certain academic areas, including English language arts (Thomas, Collier, and Abbott 1993).

Limitations of two-way immersion (TWI) program research

There are limitations in the research on TWI programs, however. Despite finding long-term positive outcomes for ELLs in these programs, it may be too early to advocate strongly for nation-wide implementation due to limited generalizability of findings and other methodological issues (Krashen 2004). First, there is sample selection bias to consider. Many individual studies of TWI programs have small sample sizes, tend to focus on a low-income population, and do not randomly assign children to programs. Although the studies discussed earlier are some of the most rigorous and comprehensive evaluations of TWI programs, small samples result in low power, and, therefore, less likelihood of finding statistically significant effects, even when a decent effect size may actually be present. Non-significant findings are less likely to be published, known as “the file drawer problem,” and this happens more frequently with small-sample studies (Francis, Lesaux, and August 2006). It is important, therefore, to consider all studies conducted rather than just those published in academic journals. In addition, students in TWI programs do not represent a random selection of the population of public school students. Usually, both language-minority students and majority students volunteer for TWI. Thus, it is difficult to know whether the success of TWI derives from the program itself or the characteristics of the students (or parents) who choose the program, or both. Also, the participants are nested in a similar social class (often low-income), and a community composed of the same ethnic group, since the students usually come from a certain neighborhood. Therefore, findings may not be generalizable to different language-minority populations in other regions of the United States.

Second, many studies examining TWI programs lack ideal control groups. Several compare the progress of language-minority children in TWI programs to that of language-minority children in an ESL or English submersion program, finding that those in TWI are performing much better in most areas assessed (Alanis 2000; Lindholm-Leary 2001; Thomas and Collier 1997). Studying language-minority children in a similar, but not quite as complex, program, such as transitional or maintenance bilingual education is needed as another appropriate control group. In addition, the language-majority children in a TWI program should also be compared to an appropriate control group, such as English-speakers in traditional EO programs.

Third, measurement of academic achievement is often non-standardized. Although some studies are conducted within one school, others are conducted across multiple schools or school districts/states. Comparison between schools is an issue if the control group school did not use the same achievement test. As a solution, most studies use a converted score such as the NCE but this metric is limited across different assessments. Future research should endeavor to use the same assessments across program settings. Fourth, most examinations of TWI programs involve just one or two time points. As the few longitudinal TWI studies demonstrate (Lindholm-Leary 2001; Thomas and Collier 1997), the significant effect of the program is not often apparent until the later grades of schooling, even though the program typically begins in kindergarten. When the study is conducted in a relatively short-time frame, it is rather difficult to find significant positive effects.

Lastly, it is unclear whether researchers have taken into account the initial success of students when examining the effectiveness of TWI. All children, both native and non-native English-speakers, represent an extremely heterogeneous group in terms of their language competence at the beginning of formal schooling. This initial difference influences outcomes of children's academic development (Cabell et al. 2011) and second language acquisition (Yesil-Dagli 2011). Also, ELLs who receive at least some amount of formal education in their first language acquire English faster than those who do not have any experience of formal education in their mother tongue (Thomas and Collier 1997). Therefore, in order to assess the progress of children in TWI, researchers should control for and/or examine children's initial language skills in L1 and L2.

Despite these limitations, studies on TWI programs point in the same positive direction, and indeed dual-language programs have gained in popularity. Considering that the program and research on it has emerged only recently, there is a lot of potential for the TWI model to grow and foster the educational success of both language-minority and language-majority children.

Issues with implementing two-way immersion (TWI) programs

Although TWI programs are gaining in popularity, this has only been implemented in nine different languages, while there are over 142 non-English languages in the United States, excluding indigenous native languages (Rhein 2007). As of 2010, those languages that are used in TWI programs include (with number of schools in parentheses): Spanish (344), French (7), Korean (5), Chinese (11), Japanese (4), and German (1) (CAL 2010a). The number of schools using a given language in a TWI program does not necessarily correlate with the most frequently spoken minority languages in the United States (Shin and Bruno 2003). For example, Japanese is not one of the top 10 languages spoken at home in the United States and yet, a

Japanese–English TWI program exists. Therefore, areas of the United States with large concentrations of a particular language group are more likely to have a TWI program in place, even if that language is not that prevalent in the rest of the country.

A successful TWI program also requires physical resources, such as classrooms and textbooks, trained personnel/instructors, and an appropriate curriculum. Staffing is counted as one of the important factors in various studies (Alanis and Rodriguez 2008; Senesac 2002). It is challenging to employ and/or retain good bilingual teachers (Day and Shapson 1996). Another factor related to success of a TWI program is parent–home collaboration (Alanis and Rodriguez 2008), and community-level attitudes, values, and cooperation. When the schools reside in a community that supports the native language, even if the school does not implement a dual-language program, parents are more likely to seek out a way to educate their children in their first language and encourage them to use that first language (O’Neil 2010). Finally, the effectiveness of TWI programs for both language-minority and majority children also likely hinges on the quality of the social climate provided in the classroom, including successful cultural and social integration and collaboration across the diverse types of students found in dual-language programs (de Jong and Howard 2009).

Schools that implement TWI programs are limited by geographic location. Given that the minority language that is most commonly spoken in the United States is Spanish, it is not surprising that states with a higher concentration of Spanish-speaking immigrant populations, have higher demand for dual-language programs. Indeed, the majority of TWI programs are located in California and Texas (CAL 2010a), and only 28 states currently implement TWI programs. Ninety-three percent of TWI programs around the United States have Spanish as their partner language (CAL 2010a); more schools utilizing a partner language other than Spanish are needed.

A few other issues must be considered. Even among TWI schools, very few schools span pre-kindergarten to 12th grade (CAL 2010b). Although a noticeable positive outcome is not really apparent until the elementary years, some studies show the effectiveness of TWI programs as early as preschool (Barnett et al. 2007). Starting the TWI program as early as possible may be the key to successful outcomes (Alanis 2000; Francis, Lesaux, and August 2006). Also, the final status of the L2 learned for native English-speakers attending TWI programs might be limited (Baker 2006). In Alanis’ (2000) study, only 53% of the native English-speakers who attended a TWI program became fully proficient in Spanish as indicated by a school-administered oral proficiency test, whereas 85% of the native Spanish-speakers became proficient in English. Due to the limited settings in which English-speaking students are presented with the second language, they might not develop full usage of the new language outside the classroom (Netten and Germain 2004). Additionally, after graduating from school, language-majority students may no longer use their second language that they acquired.

Policy recommendations and conclusions

Significant progress has been made in the past 50 years in terms of equal educational opportunities for ELLs. However, there is still substantial room for improvement in the bilingual education system. Observers often point to the gap in communication between the research and policy communities (Horowitz 2000;

Shonkoff 2000). This is reflected in the discrepant ways in which the two communities label the population of language-minority children. The official label used by the federal government is LEP. As previously mentioned, this focuses on skills the child is lacking, rather than what positive aspects the child might bring to the situation. The research community prefers more objective labels, such as ELL or DLL that focus on additive bilingualism. However, these labels have not yet made their way into mainstream policy culture.

There is also not a standard definition of “bilingual education.” Five approaches to the education of ELLs were described in this paper: submersion, ESL/ESOL instruction, transitional bilingual education, maintenance bilingual education, and TWI. However, the programs and services in place for ELLs do not always fit neatly into one of these five categories for all school districts around the country. Some school districts may use a combination of the programs described earlier. There are no federal standards for the “best method” for educating ELLs. If federal standards were put into place, states could begin to take more action to help their local school districts implement educational services. Further, it appears that the TWI model is a very effective method for educating both language-minority *and* language-majority students. However, achieving this style of education for all ELLs is a lofty goal. The government must first ensure that no language-minority student is “lost in the system,” and that all ELLs are receiving at least *some* level of services, even if it is simply ESL-only pull-out instruction. This could be achieved by requiring states to more closely monitor the kind of services ELLs are receiving in their school districts.

In addition, more rigorous research on TWI programs is needed. As mentioned earlier, appropriately matched control groups are needed to increase both the internal validity and generalizability of results. The model of a social policy experiment is recommended as a way to examine the effectiveness of these programs. A social policy experiment is “a research design in which individual participants or households [or schools] are randomly assigned to experience different regulations or incentives in order to test policy-level interventions ...” (Romich 2006, 136). Different classrooms could be assigned to different types of bilingual education programs and the children could be followed longitudinally for at least two years, with measurements of academic performance taken at regular intervals. The Institute of Education Science (IES) or another similar federal agency could, for example, advertise a call for research proposals on this topic.

One of the main obstacles to the wider use of TWI programs is the lack of qualified teachers (Alanis and Rodriguez 2008; Senesac 2002). To resolve this issue, a foreign exchange program could be implemented between the United States and countries of the language-minority children present in the classroom. This program would involve bringing qualified teachers from their native country to the United States for an internship experience. Families of children in the school could volunteer to host visiting teachers for the course of the academic year, with some kind of compensation provided by the federal or state government. In return, these teachers would receive the opportunity to learn additional English skills, if desired. One such program was devised and implemented in Dalton, Georgia in 1996 as a response to the rapidly increasing numbers of children from Spanish-language backgrounds in that community (Davis 2009; Hamann 1999). Community leaders in Dalton collaborated locally with Dalton public schools and internationally with the University of Monterrey in Mexico to bring native-speaking Spanish teachers into the Dalton

school system. Additionally, teachers from Dalton had the opportunity to spend a summer in Mexico, taking part in an institute designed to teach them more about Hispanic culture and basic Spanish language skills. Over 200 teachers participated in the Project from 1997 to 2007 (Davis 2009). One assessment of the program concluded that “the Georgia Project stood as a promising, multifaceted attempt to confront multiple obstacles that have limited Hispanic school success and socioeconomic mobility elsewhere” (Hamann 1999, ix). Other exchange programs for teachers also exist in the country, such as the Fulbright Teacher Exchange program. Cooperation with language agencies or teaching agencies, including both local agencies and state or federal-level agencies, such as Teach for America or Defense Language Institute Foreign Language Center, could also facilitate the development of more TWI programs. Exchanging resources with the teachers’ native countries, such as textbooks in the native language, would also be an option to consider. This could promote international cooperation between countries, and also help language-minority students receive equal educational opportunities.

In conclusion, despite its limitations and the need for more rigorous studies, TWI programs currently appear to be an effective model for helping ELLs to become proficient in English, while at the same time retaining valuable first language skills (Thomas and Collier 1997, 2000). Additionally, native English-speakers in these programs are also provided with the opportunity to become bilingual. Indeed, there is a global trend toward second language acquisition. Citizens in several other countries (e.g. Canada, Germany, Scotland, Australia) learn one language from birth, and then begin second language instruction during formal schooling (Johnstone 2007). Some countries even require their children to learn a second or third language. In Luxemburg, for instance, French, German, and Letzeburgesch are recognized as national languages, and almost all of the citizens are trilingual (Teacher Education by Learning through Two Languages n.d.).

An increasing number of elementary and secondary schools in the United States offer instruction to students in foreign languages with targeted goals set at advanced levels of oral and written proficiency by the end of secondary schooling. In 2008, CAL surveyed more than 5000 secondary and elementary schools, both public and private, to learn more about the availability of foreign language instruction on a national scale (Rhodes and Pufahl 2009). They found that foreign languages were being taught in about one in four elementary schools (a 6% decrease from 1997). About 58% of secondary schools were teaching foreign languages, which was also less than that in 1997 (75%). In elementary schools that had foreign language programs, Spanish and French were by far the most common languages taught, with 88% and 11% of schools, respectively, followed by Spanish for Spanish speakers, German, etc. For secondary schools that had foreign language programs, 93% offered Spanish and 46% offered French. Despite these encouraging figures, CAL concluded that native English-speaking students in US schools are still too limited in opportunities to continue foreign language education for enough years to gain full communicative skills in a foreign language (Rhodes and Pufahl 2009).

The United States is concerned with its standing in the global market, but remains less concerned with providing children with the foreign language tools necessary to be competitive in that market. The United States needs to adopt the philosophy of teaching *all* children a second language from kindergarten through 12th grade, not just language-minority students or students who actively seek a foreign

language class. Such changes would likely be beneficial for all students, and especially for those learning English.

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