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# Moving Toward Two-Way Bilingual Programs

This how-to book is for teachers, school and district administrators, policymakers, program coordinators, evaluators, and community leaders in the United States and other countries who are planning two-way bilingual (TWB) programs, Grades K–12. We call them TWB programs because they are bilingual education programs and meet bilingual education and school objectives. Schools transformed into two-way bilingual programs promote bilingualism, academic achievement, and cross-cultural understanding in all of their students, along with the other important goals of a regular school program. TWB programs provide instruction for native English speakers and native speakers of another language (e.g., Spanish and English, Chinese and English, French and English, Navajo and English, Korean and English). These programs are developed using the same challenging academic and language development standards as basic K–12 education.

Throughout this chapter and this entire how-to book, we have referred to many sources that provide the rich detail of TWB programs. These sources are in the form of textbooks, research reports, summary briefs, conference papers, and speeches and provide an understanding of the topic without which this book would not have been possible. There are several authors who have contributed to what we know in the field of

TWB programs. They include, to name a few, Cazabon (2001), Christian and her coworkers (Christian, Montone, Lindholm, & Carranza, 1997), Genesee and his coworkers (Cloud, Genesee, & Hamayan, 2000; Genesee, 1999), Howard and Sugarman (2001), and Lindholm-Leary (2000, 2001), among others. Information about TWB programs can also be found at the World Wide Web sites for the Center for Applied Linguistics (CAL); the National Clearinghouse for English Language Acquisition and Language Instruction Educational Programs (NCELA), formerly called the National Clearinghouse for Bilingual Education (NCBE); the Center for Research in Education, Diversity, and Excellence (CREDE); and the ERIC Clearinghouses, sponsored by the U.S. Department of Education.

#### WHAT IS A TWO-WAY BILINGUAL PROGRAM?

A TWB program is a bilingual education program that integrates second-language learners (SLLs)—that is, English learners and English-speaking students—for instruction in and through two languages (Cazabon, 2001; Lindholm-Leary, 2001). For English learners, the first language (L1) is their native language (e.g., Spanish, Chinese, French, Korean, Navajo), and the second language (L2) is English. For English speakers, their L1 is English and their L2 may be Spanish, French, Russian, and so forth. This program provides language, literacy, and content area instruction to all its students in both languages. TWB programs are also known as two-way immersion, bilingual immersion, dual-language immersion, developmental bilingual education, dual-language education programs, and two-way programs (Baker & Prys Jones, 1998; Brisk, 1998).

CAL has documented the growth of TWB programs in the United States. As of 2001, there were 260 programs in 23 states, and the majority of these programs—more than two-thirds—use English and Spanish (CAL, 2002). A TWB program integrates SLLs for instruction in and through two languages. It provides language, literacy, and content area instruction to all its students in both languages.

A two-way bilingual program integrates Spanish learners, Vietnamese learners, Navajo learners, and so on for instruction in and through two languages.

Academic, language, and affective goals are at the core of TWB programs. Another important goal of these programs is to eliminate the isolation of English learners from English speakers by providing them with a rich English-language environment and by supporting their academic learning with no risk to their native-language development, language

maintenance, or academic achievement (Howard & Sugarman, 2001; Thomas & Collier, 1997). On the other hand, English speakers are given the

opportunity to learn a second language with native-speaking peer models (Cazabon, 2001; Christian et al., 1997).

A TWB program can also be considered a bridge for all students to have access to and benefit from bilingual education and general education programs. It is bilingual education for all students, for the general population, and for language minority and language majority students. It embodies the latest educational research and practice, whether these are published in general education or bilingual education quarters. It can also be considered an enrichment approach and an asset to bilingualism, and it is thoroughly bilingual. There is a valuing of and respect for the language and culture of the participants. It is a bilingual way for educating all students (Calderón & Carreón, 2000; Cloud et al., 2000).

TWB programs emphasize challenging standards in the core curriculum domains while enriching the students' development in both their first and second languages (Lindholm-Leary, 2000). These programs aim for full proficiency in two languages, understanding and appreciation of the cultures associated with those languages, and high levels of achievement in all core academic domains (Cloud et al., 2000; Montague, 1997).

A two-way bilingual program is a bilingual way for educating all students—a bridge for all students to have access to and benefit from bilingual education and general education programs.

# THE BENEFITS OF TWO-WAY BILINGUAL PROGRAMS

Research on TWB programs points to educational, cognitive, sociocultural, and economic benefits of bilingualism and instruction in two languages (Calderón & Carreón, 2000; Cloud et al., 2000). A summary of these benefits follows.

- *Educational*. TWB programs benefit all students, whether they are minority or majority, rich or poor, young or old. Students can acquire high levels of proficiency in their L1 *and* in their L2.
- *Cognitive*. Bilingual students achieve cognitive and linguistic benefits on academic tasks that call for creativity and problem solving. They also know about the structural properties of the language, including its sounds, words, and grammar. This knowledge is beneficial in reading development because it facilitates decoding academic language.
- Sociocultural. Bilingual persons are able to understand and communicate with members of other cultural groups and to expand

their world. They are able to respect the values, social customs, and ways of viewing the world of speakers of other languages and their communities.

- *Economic*. There are jobs that call for bilingual or multilingual proficiency. Students who come to school speaking important languages, such as Spanish, Korean, Navajo, and Albanian, are valuable resources who can contribute to the nation's economic relations with other countries because they already know another world language.
- Global. Due to the recent terrorist attacks to the United States and the threat of a long-term war, our nation can benefit from bilingualism and biculturalism as strategies and initiatives to bring peace are put in place in different parts of the world with non-English-speaking communities. It follows that our country would benefit if negotiations, protocols, and deliberations were conducted using local languages to defend democracy and protect the general welfare of the citizens of the world.

TWB programs are also potentially beneficial to comprehensive school and/or district reform movements as these reform efforts attempt to address the shortage of educational programs that meet the needs of SLLs, who can be provided with a genuine schooling environment that sees to their language and academic competence and social well-being (Lindholm-Leary, 2001). In a school or district, the goal is to have a balanced bilingual population of native English speakers and speakers of a non-English language who are both able to function effectively in two languages (Amrein & Peña, 2000; Cazabon, Nicoladis, & Lambert, 1998).

# WHAT TWO-WAY BILINGUAL PROGRAMS ARE NOT

Research and practice have demonstrated that for TWB programs to be successful, they should do justice to both languages and cultures based on a strong program design and implementation (Calderón, 2001a, 2001b). Consequently, TWB programs are

- NOT subtractive. TWB programs promote native-language literacy skills and balanced bilingualism.
- NOT remedial programs. TWB programs are quality program designs for standards-based education while promoting proficiency in two languages.
- NOT compensatory programs. TWB programs educate first-class students who are able to achieve at the highest levels and who are bilingual. These programs need to be at the core of school and/or district efforts.

- NOT superimposed on traditional school or district structures or on an infrastructure that was set up for an existing bilingual program. The structures need to be reorchestrated, redesigned, and integrated to make time for and do justice to the two languages.
- NOT superimposed on existing mind-sets of an "enrichment" versus a "remedial" model. TWB programs promote enrichment, a position that needs to be clarified and addressed before and during program development and implementation.

## REASONS TO DEVELOP A TWO-WAY BILINGUAL PROGRAM

By the year 2020, the majority of students in our nation's schools will be living in circumstances traditionally regarded as placing them at risk of educational failure (Riley, 2000; Rossi & Stringfield, 1996). Many students will be poorly housed, undernourished, subject to the effect of others' abuse of drugs, provided with few adult role models, and linguistically and culturally diverse (Laturnau, 2001). Researchers, practitioners, and policymakers unanimously agree that urban schooling is in dramatic need of improvement to meet the needs of linguistically and culturally diverse students (August & Hakuta, 1997; Hess, 1999). They point to statistical social indicators that continue to account for the negative public schooling programs, practices, experiences, and circumstances offered to English learners (National Center for Education Statistics [NCES], 1999, 2001; Waggoner, 1999). The graduation rate continues to range between 50 and 60 percent (National Clearinghouse for Bilingual Education [NCBE], 1999; Valenzuela, 1999). By age 25, about 25 percent of these students have completed high school compared to 79 percent for English speakers (Carnevale, 1999; O. Garcia, 1999). Recent research confirms that at-risk students continue to enter school later, leave earlier, and receive proportionately fewer high school diplomas and college degrees than other U.S. students (Fashola & Slavin, 2000).

Since the 1980s, demographers have reported substantial increases in the linguistic-ethnic diversity of student populations at state, regional, and national levels. In the past two decades, they have observed that students of Euro-American heritage grew by 5.5 percent, whereas Latinos grew by 65 percent. As Euro-American students are projected to decrease

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by 10 to 11 percent between 2000 and 2020, Latinos are expected to grow by 54 percent (González, 2000; NCES, 1997). In 1996, Latinos represented 11 percent of the nation's population but will increase to 25 percent in 2050

(Osterling, 1998). The U.S. Bureau of the Census predicts that in the near future, one in every four Americans will be of Latino ancestry (August & McArthur, 1996; Rong & Preissle, 1998).

This massive U.S. demographic shift challenges educators in every segment of the country (Riley, 2000; Sizer, 1996). Scholars define their education as elusive and problematic (Donato, 1997; Garcia, 2001). A 1996 White House report described Latinos' overall school experience as "a history of neglect, oppression, and periods of wanton denial of opportunity . . . [by a system that continues to] deny equitable educational opportunities to Hispanic Americans" (President's Advisory Commission on Educational Excellence for Hispanic Americans, 1996, cited in Osterling, 1998, p. 3). Since the 1960s, the dropout rate for Latinos has been regularly cited at between 40 and 50 percent (Cummins, 1986) and as high as 90 percent for Puerto Ricans (Nieto, 1998). Currently, 53 percent of Latinos age 25 or older complete high school, while only 9 percent of this population earn college degrees (Valencia, 1997). August and Hakuta (1997) suggested that the educational status of Latinos is problematic because this group is perceived as a threat to the status quo and scarce symbolic resources. Yet another dynamic contributing to differentiated academic achievement is the structure of schooling as an instrumental means to individualism and social mobility that gives advantages to the dominant middle class (Hoffman, 1998; Macedo & Bartolomé, 1999).

That 3 out of 10 Latino students are reported to have difficulty understanding and speaking English is another critical factor (NCES, 1997; Valdés, 1998). Some of these students are in transitional bilingual education (TBE) programs that are subtractive, resulting in the loss of native-language literacy skills and limited bilingualism (Garcia, 2001; Wong Fillmore, 1991). Evidence strongly suggests that in TBE programs, bilinguals exit at a critical point that does not allow them to develop more fully their native-language literacy and higher cognitive skills that could translate into higher achievement in English-only classes (Slavin & Calderón, 2001; Spener, 1988). Exiting at this critical moment limits their biliteracy

Transitional bilingual education programs often result in limited bilingualism. Students exit these programs at a critical point that limits their biliteracy skills, jeopardizes their cognitive growth, and lowers their academic achievement that could translate into higher achievement in English-only classes.

skills, jeopardizes their cognitive growth, and lowers their academic achievement (Brisk, 1998; Hakuta, 1986).

Along with language, cultural factors are linked to the underachievement of Latino students (Durán, 2000; Goldenberg, 1993). Latino students new to the United States lack knowledge of specific features of the school, known as "culture of the classroom" (Crawford,

1997; Cummins, 1996). They face the challenge of learning not only local and national values but also the hidden cultural patterns of interacting in the classroom such as the following:

- Learning to talk
- The value of participating in sports or other co-curricular activities
- Effective ways of communicating with school authorities
- The value of competing for grades and recognition and so forth (Hoffman, 1998)

Moreover, Brisk (1998) posited that the pressure to assimilate to a new educational system and a new culture is an expensive proposition for Latinos, especially when it means rejecting their language and culture. Forcing newcomers to make personal choices of language and culture often affects their self-esteem, motivation, and ability to learn English and the academic curriculum (Echevarria, Vogt, & Short, 2000).

For more than three decades, bilingual education programs in the United States have had as a goal the social integration of language minority groups who have been at least partially socially disenfranchised (Hernández-Chávez, 1984; Secada, 1990). However, the policies of and practices for these programs have reflected attitudes toward bilingualism versus monolingual-

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ism on the part of the socially dominant group (Crawford, 1989, 2000; Cummins, 2000). Consequently, the establishment and operation of bilingual education programs have largely proceeded on the assumption that one can be a "real" member of U.S. society only by assimilating to the new culture and by becoming a monolingual English speaker, thus giving up one's first language and ethnic identity (Crawford, 1992; Minaya-Rowe, 1988).

For the most part, bilingual education programs have been compensatory in nature, much like the Head Start programs of the 1970s; they have also been based on the academic and sociocultural deficit model (Cummins, 2000; E. Garcia, 1999). Programs developed for non-English speakers have provided diluted curriculum instruction and nonchallenging academic content, focusing mostly on second-language development. They have frequently been described as sink-or-swim or submersion programs with the goal to eradicate the first language and to underestimate the first culture (Cummins, 1991; Ovando & McLaren, 2000).

There also have been TBE programs with some instruction in the first language, but they move as quickly as possible into English. For the most part, all federally funded programs have been transitional in nature

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and provide early exit bilingual education services to "limited English-proficient students" for the period of time that the students are considered deficient in English communication skills (Tse, 2001). Once they are identified as "ready" to be mainstreamed, the laws do not require any specialized instructional services.

Also, during the past two decades, a number of practitioners and theoreticians have promoted other programs as alternatives to transitional bilingual education, namely, language maintenance programs, dual-language programs, or two-way bilingual programs—in general, programs that fall under the category of enrichment language education (Cloud et al., 2000; Genesee, 1999). They have posed the inclusion of language majority students in bilingual schooling as a way to promote enrichment bilingual education for language minority students. All SLLs are part of a bilingual program—a TWB program—and both languages and cultures are valued and used in instruction (Calderón, 2001a, 2001b; Lindholm-Leary, 2001).

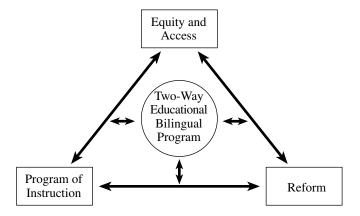
Language minority and language majority students are part of a bilingual program—a two-way bilingual program—and both languages and cultures are valued and used in instruction.

## REASONS IN SUPPORT OF TWO-WAY BILINGUAL PROGRAMS

In this chapter, we examine three reasons important for successful TWB program development. These issues have been conceptual building blocks and generically applied in educational theory and effective practices of education. They also have been linked to the education of linguistically and culturally diverse students and are used to support this book's main focus: how to best meet the educational needs of both SLLs in terms of TWB program development and implementation. The issues are as follows:

- Access to and equity in education, which include sociopolitical issues, attitudes toward bilingualism, and adequate education, among other issues
- Educational innovation, which includes the commitment, time, and perseverance of the entire school to sustain change and professional development, among others

Figure 1.1 Conceptual Issues for Successful Two-Way Bilingual Programs



 Program on instruction for all students through language development, academic achievement, and effective instruction, among others

These three issues can roughly define a sequence for TWB program development, as presented in Figure 1.1. They can complement each other, occur simultaneously, and be used again and again as a rationale to develop, implement, and sustain a program. The sequence may be used to explain procedures of initial steps in TWB program development, as well as the rationale of the program, how the program works, how to plan and disseminate a program, and so forth. Furthermore, these three issues can be considered organizational tools as those involved in planning TWB programming—be it teachers, administrators, staff, and so on—design and develop it. The components may vary depending on the school characteristics and varied needs, such as student composition, diverse ethnic backgrounds, linguistic needs, and teachers' levels of expertise. One should bear in mind that the same TWB program design in one school may not exactly serve another school. However, as schools experience change every time they promote a TWB program innovation, at first tentatively, they have the opportunity to ground the procedures to develop an innovative program that meets the particular school's needs. Specifically, this process helps both mainstream and bilingual educators to become aware of common goals and be more sensitive to students' needs. The program components are refined as educators gain a deeper understanding of the interplay of the three issues. Finally, theory and practice are integrated into these issues.

TWB program planners can use the sequence as something practical and immediately useful—something we might even call a directive—to identify the program's potential in the context of the three issues in order

As schools experience change when the two-way bilingual program is implemented, they have the opportunity to ground the procedures to develop an innovative program that meets the particular school's needs.

to find the most adequate approach to educate all students. The sequence can be used as conceptual support every time an innovation is introduced, whether it is related to standards-based curriculum, staff development, or student assessment. Over time, the process becomes more efficient and is accomplished more quickly as planners and educators develop expertise.

The three issues overlap and are so intertwined that it is difficult to separate them, but they can be used to fit specific school needs. For example, professional development can be related to the program of instruction and to sociocultural aspects of schooling, language and academic achievement can be related to attitudes toward bilingualism and to school commitment, and so forth. What follows is a brief description and rationale of what the spiral represents.

## The Two-Way Bilingual Program as an Opportunity for Access and Equity

When properly implemented, TWB programs provide *all* students, including English learners (ELs), a quality education—that is, equal access to academic programs and activities and equal opportunity for academic achievement and bilingualism. A TWB program is an equitable educational program that respects and treats all students as equal members of the school community. It is equitable instruction because it welcomes and challenges all students and staff to do their best regardless of race, national origin, education, language, and culture.

A TWB program is an equitable educational program that respects and treats all students as equal members of the school community and challenges students and staff to do their best regardless of race, national origin, education, language, and culture.

The literature reveals that creating an equitable TWB school environment is a complex and very demanding process. However, when schools or districts design and implement TWB programs, they can accomplish the following:

- They help ensure equity in education as English-language learners have an equal chance to achieve their full potential.
- They promote equal access to programs and activities.
- They practice equal opportunity for academic achievement.

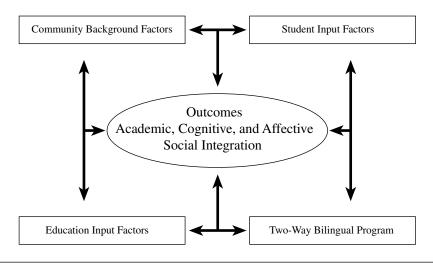
A TWB program can be at the core of this goal as schools become more racially balanced and can equitably ensure equal opportunity for academic achievement, decrease conflict, and involve parents and community members (Thomas & Collier, 2002). TWB programs also have the potential to promote philosophies and policies of equity and access with respect to all of their students. These programs are grounded in theories concerning education, assessment, teacher growth, parental involvement, organizational structures, and social constructivism. Social constructivism recognizes that all students construct knowledge socially through meaningful interactions with parents, teachers, and peers regardless of ethnicity, class, and language background (Baker & Prys Jones, 1998; Tharp, 1999).

The main benefit TWB program planners can derive from a theory in support of the equity and access to a quality program is the guidance such a theory can provide in judging the soundness of the program designed to meet the needs of both groups of SLLs. For example, we can examine the relationship between the TWB program and community background factors (those social factors that go beyond the school and the program) in terms of the contextual interaction model proposed by Cummins (1979) and Cortes (1986). Figure 1.2 on page 14 illustrates this relationship.

For the contextual interaction model, the TWB program can work as follows.

- The *community background factors*, such as language use patterns in the home and community attitudes toward the student's first language and second language, contribute to *student input factors*, which the student brings to the educational setting.
- These *student input factors* (first-language proficiency, second-language proficiency, or no proficiency; self-esteem; levels of academic achievement; and motivation to acquire the second language and maintain the first language) are in constant interaction with the *instructional program*, resulting in social integration and various academic, cognitive, and affective student *outcomes*.
- The *TWB program* gives high status to both groups of students and bilingual and nonbilingual teachers, integrates language and literacy, promotes the standards-based curriculum, encourages team teaching and action research, and includes a high level of parental involvement.
- Furthermore, the TWB program is primarily determined by *educational input factors* such as enrichment characteristics, fiscal resources available to the program, staff knowledge, skills, curriculum innovations, standards-based curriculum and assessment, experience, expectations and attitudes, and underlying educational assumptions or theories.

Figure 1.2 The Contextual Interaction Model



SOURCE: Adapted from Cummins (1979) and Cortes (1986).

In conclusion, the contextual interaction model accounts for the interaction of the *community background factors* (majority-minority status, attitudes toward L1 and L2), which SLLs bring with them as *student input factors* to the TWB instructional program to meet their immediate needs: first-language proficiency, second-language proficiency, academic achievement, and psychosocial adjustment.

## The Two-Way Bilingual Program as an Educational Reform Tool

Public school enrollments are being transformed by an increase in the number of English learners who bring the richness of linguistic and cultural diversity with them to school (Garcia, 2001). Education reforms have raised the bar so that all students, including SLLs, must finish school and participate in the economic and social world of the new century. These reforms place tremendous pressure on public schools across the nation; they are continuously challenged to meet the needs of a widely diverse population (Marcos, 1998).

TWB programs cannot be superimposed on existing structures or mind-sets (Calderón, 2001a, 2001b). It is not just your father's usual bilingual compensatory program. Since it is not a remedial program or a compensatory or subtractive one, it needs a whole-school reform setting. TWB programs need a new structure; schools and/or districts need to start all over. They need to have the following characteristics:

- Their goal is promote native-language literacy skills and balanced bilingualism.
- Their mission is to enrich with a quality program design for standards-based education while promoting bilingualism.
- Their mission is to educate first-class students who are able to achieve at the highest levels and who are bilingual. The programs need to be at the core of school and/or district efforts.
- They should be built on a new infrastructure and be well designed and integrated to make time for and do justice to the two languages and cultures.
- Their mission is to dispel the myth and mind-set as an "enrichment" versus "remedial" bilingual program before and during program implementation.

Researchers and policymakers also point to education reform to change schools in order to correct perceived social and educational problems and promote cognitive, academic, and linguistic development (Tyack & Cuban, 1995). The TWB program as a reform tool can focus on improving school performance and

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language enrichment. It can yield a procedural reform that introduces new and different socioeducational contexts for equitable language and academic education, with the goal to produce and sustain socioeducational change. The implementation of a quality TWB program can make a difference in the school community with concrete, short-term improvements. The program involves and supports teachers, principals, parents, and the community's efforts in a concerted effort to

- improve racial relations,
- refine classroom teaching and learning,
- reduce dropout rates,
- strengthen community/parent participation in the education of their children,
- apply research-proven curricula, and
- update staff development with the potential of sustained long-term changes.

The role of TWB programs can be pursued through reform implementation, refinement, and sustainability to build a capacity for change in the system and to lead the school toward sustained educational improvement.

Most analyses of reform are framed in a rather general fashion (Hess, 1999). The TWB program can offer quality education for SLLs based on a thorough and in-depth review of all aspects of schooling—curriculum, instruction,

assessment, staff development, and organizational strategies—as well as other factors specific to the school or district. As an educational innovation, the TWB program has the potential to provide insights and analytical frameworks to spell out the theories supporting systemic reform (Montague, 1997; Sarason, 1996). In turn, the use of its individual components of reform can provide an understanding of the larger framework to conceptualize the school's or district's systemic reform (Johnson, 1996).

The TWB program as a reform tool can legitimize the overall performance of a school or district with a workable present and future of both structure and activity (Meyer & Rowan, 1991). The school requires time, focus, and the commitment of personnel who value student input factors. It may nurture school reform efforts with the goal to develop deep understandings of successful research-proven theories and applications for the improvement of teaching and learning (Hill, 1997). TWB program planning, implementation, and coordination in a multifaceted and integrated approach enable planners to alter instruction, curriculum, assessment, staff development, and other school organizational strategies (Greenfield, 1995).

As an educational innovation, the two-way bilingual program has the potential to provide insights and analytical frameworks supporting the school's or district's reform.

Urban schools face many serious challenges in serving their students. With the proper implementation of a TWB program, progress can be made to meet these challenges and sustain them. The TWB program can be the connection between instructional processes and student outcomes, integrated curriculum and instruction, models of staff development, parental and

community involvement, and organizational processes that sustain change (Sizer, 1996). Existing urban schools' reform efforts have already demonstrated that it is possible for schools serving large numbers of students placed at risk to help these students achieve levels of education far above those traditionally achieved by disadvantaged groups of students (Fashola, Slavin, Calderón, & Durán, 2000; Nadeau, 1996).

TWB programs represent a significant development in the evolution of bilingual and bicultural education and systemic reform (Calderón, 2002; Valdés, 1997). In a sense, TWB programs are the ultimate test of whether schools and districts can become meaningfully responsive to linguistic and cultural heterogeneity and can value students' languages and cultures and provide them with a successful schooling experience.

A goal of this how-to book is to demonstrate how the different TWB program components are used in the systemic reform. Individual components of school reform have been the focus of research at different times in isolated or smaller school systems, rendering incomplete pictures in making informed recommendations in policy and practice (Newmann, King, & Rigdon, 1997). A gap in the literature exists with respect to case studies on educational reform in urban, diverse, and larger contexts

(González & Darling-Hammond, 1997). A coherent examination of the conditions that foster this valuable reform is now needed.

## The Two-Way Bilingual Program Promotes Language Development and Academic Achievement

Although the purpose of this how-to book is not to provide an extensive and in-depth review of the literature, we would like to present two theoretical frameworks that can help prepare us to deal with and understand the needs and strengths of SLLs. These frameworks are the threshold hypothesis and the dimensions of language proficiency.

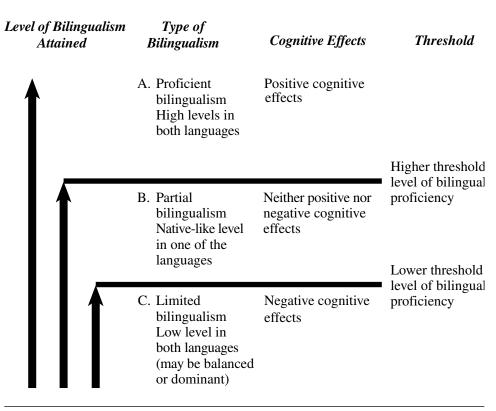
#### The Threshold Hypothesis

Research on the relationship between bilingualism, academic achievement, and cognitive development carried out about half a century ago implied that bilingualism was a cause of language handicaps and cognitive confusion (Genesee, 1987; Lessow-Hurley, 2000). However, since the 1960s, a substantial number of studies have reported academic and cognitive benefits associated with bilingualism (Hakuta, 1986). These findings are not surprising when we consider that bilinguals have been exposed to more training in interpreting and analyzing language than monolinguals. As students develop high-level bilingual skills, they become "linguists" and are able to compare the grammars and vocabularies of their two languages (Bialystok & Hakuta, 1994; Lambert, 1984). They are able to express the same thoughts in two languages, as well as see their first and second languages as one system among many others as they become aware of their linguistic operations.

The level of bilingualism that students attain is an important factor in judging the effects of bilingualism on their educational development. The current research data have led us to believe that there are threshold levels of linguistic proficiency that students must achieve to avoid cognitive deficits and allow for the potentially beneficial aspects of becoming bilingual to influence cognitive growth. The threshold hypothesis assumes that those aspects of bilingualism that might positively influence cognitive growth are not likely to come into effect until students have attained a certain minimum of threshold-level proficiency in their second language. If bilingual students attain only a very low level of proficiency in one or both of their languages, their interaction with the environment through these languages in terms of input and output is likely to be impoverished (Cummins, 1981, 1984).

There appears to be two thresholds of bilingual proficiency. The attainment of a lower threshold level would be sufficient to avoid any negative cognitive effects. The attainment of a higher threshold level would be necessary for accelerated growth.

**Figure 1.3** The Threshold Hypothesis for Two-Way Bilingual Programs: Cognitive Effects of Different Types of Bilingualism



SOURCE: Based on Cummins (1981, 1984).

- Subtractive or limited bilingualism (Type C in Figure 1.3) is the result of too little effort being made by the student and/or the program to maintain and develop the L1 while the L2 is being developed. Some English learners are limited bilinguals, and they do not catch up linguistically with native speakers of English and thus pay the price of limited or subtractive bilingualism. They experience academic difficulties, and their proficiency in both languages is less developed than among native speakers of each. This would also apply to all SLLs for their L2 development when full proficiency orally and in writing is not implemented.
- Partial bilingualism (Type B in Figure 1.3) is the intermediate step to proficient bilingualism. SLLs possess native-like levels in one of the two languages. If properly implemented, the instructional program offered to these students would aim at raising their level of bilingualism.

• Additive or proficient bilingualism (Type A in Figure 1.3) relates to positive consequences of bilingualism in SLLs with native or near-native proficiency in two languages.

In conclusion, bilingualism per se is not the cause of academic difficulties. When SLLs' first and second languages are strongly promoted by the instructional program, the resulting additive bilingualism appears to entail linguistic and cognitive benefits. In other words, there is a positive relationship between the degree of proficiency developed by bilingual students in both languages and academic achievement.

#### The Dimensions of Language Proficiency

Cummins (1981) has identified two major dimensions of language proficiency. These dimensions account for the differences between the linguistic and academic demands of the school and those of interpersonal communication contexts outside the school. All tasks requiring language skills may be placed along two continua, as presented in Figure 1.4.

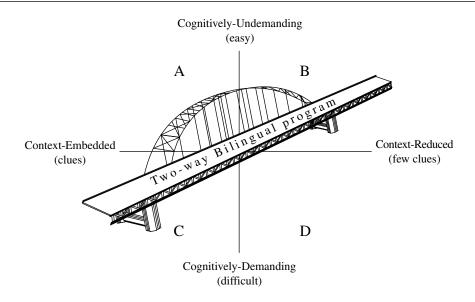
The horizontal continuum describes the amount of contextual support available for expressing or receiving meaning.

- Context-embedded communication is less language dependent and more context dependent. Speakers and listeners can actively negotiate for meaning, while the language they use is supported by a wide range of contextual cues (nonlinguistic or paralinguistic cues such as gestures, body movements, voice intonation, visuals). It is the language typical of the everyday world's face-to-face communication.
- Context-reduced communication is more language dependent and less context dependent. Speakers and listeners rely exclusively on linguistic cues to extract meaning. Many of the linguistic demands of the mainstream classroom reflect communicative activities at this end of the continuum (class lectures, dictation, etc.).

The vertical continuum addresses the cognitive demands of the communication task or activity.

- The upper parts consist of communicative tasks in which the linguistic tools have become largely automatic. These tools have been mastered and thus require little active cognitive involvement for appropriate performance. Cognitive demands are easy (e.g., following simple directions, playground talk, simple yes-no responses).
- The lower parts of the vertical continuum consist of communicative tasks that have not become automatic and thus require active

Figure 1.4 Range of Contextual Support and Degree of Cognitive Involvement in Communicative Activities



cognitive involvement for appropriate performance. Cognitive demands are difficult (e.g., describing a procedure, writing an essay, taking a standardized test).

Furthermore, activities in Quadrants B and D of Figure 1.4 require linguistic resources (grammatical, discourse, social, and the maximum use of strategic skills) to achieve communicative goals (e.g., a telephone conversation, translating in a store for a parent). In other words, cognitive involvement can be just as intense in context-embedded and context-reduced activities.

# HOW CAN WE USE THESE CONCEPTS IN THE TWB PROGRAM?

Figure 1.4 illustrates how the TWB program can benefit from the concepts of contextual support and cognitive involvement across all four quadrants in a progressive manner.

1. First, the context-embedded and context-reduced distinction suggests reasons why SLLs acquire conversational skills in their second languages sooner than academic proficiency. The fact is that there are considerably more cues to meaning in face-to-face context-embedded situations than in typical context-reduced activities.

2. Second, the aim of TWB schooling is to develop students' understanding of cognitively demanding and context-reduced tasks. The more initial literacy can be developed in a meaningful context (e.g., related to the student's background), the more successful it is likely to be. The same application holds true for L2 instruction: the more context embedded the instruction is in L2, the more comprehensible it is likely to be, and the more successful it should be in ultimately developing L2 skills in context-reduced situations.

Cummins (1981) stressed that one of the reasons English learners often fail to develop high levels of English academic skills is because their initial instruction has stressed context-reduced communication insofar as instruction has been through English and unrelated to their prior out-of-school experience. This would also apply to all SLLs whose background knowledge is needed to build their second-language proficiency. Cummins's proposals lead us to conclude the following: Language proficiency is the ability to use language for both basic everyday communication and academic tasks.

#### **SUMMARY**

This chapter has tried to demonstrate that TWB programs have the potential to promote a more equitable school climate in the context of school improvement and systemic reform. Based on the research literature of the past two decades, the chapter has provided a definition of TWB programs, an illustration of the benefits and a rationale for quality TWB programs, and a description of what a good TWB program is not. It has also examined the reasons and issues to develop a TWB program as a means for access and equity, educational innovation and reform, and program of instruction. Our challenge as educators, parents, policymakers, and researchers is to put in practice these concepts and become part of the educational transformation. These are tools to design and implement an innovative program to stimulate policy changes at all levels and sustain them: identifying the students; allocating time and curriculum for each language; facilitating ongoing professional development; developing curriculum, literacy, and assessment; involving parents; and evaluating programs. The chapters of this how-to book that follow provide a practical guide to develop TWB programs and implement existing ones.