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Two-Way Immersion Education: Students Learning Through Two Languages

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In a growing number of schools in the U.S., students are learning through two languages in programs that aim to develop dual language proficiency along with academic achievement. These two-way immersion programs integrate language minority and language majority students and provide content area instruction and language development in two languages. This article provides a picture of the current state of two-way immersion education in the U.S. based on a study (undertaken between 1991 and 1994) of over 160 schools. Two-way programs typically share the goals of bilingual proficiency, academic achievement, and positive crosscultural attitudes and behaviors, but they vary a good deal in the approaches and strategies they use to work toward those goals. A host of local factors affect such issues as student enrollment, program design, and instructional features. Emerging results of studies of two-way immersion programs point to their effectiveness in educating nonnative-English-speaking students, their promise of expanding our nation's language resources by conserving the native language (L1) skills of minority students and developing second language (L2) skills in English-speaking students, and their hope of improving relationships between majority and minority groups by enhancing crosscultural understanding and appreciation.

The best setting for educating linguistic minority pupils—and one of the best for educating any pupil—is a school in which two languages are used without apology and where becoming proficient in both is considered a significant intellectual and cultural achievement.

Charles L. Glenn, *Principal*, 1990

IN A GROWING NUMBER OF SCHOOLS IN the U.S., students are learning through two languages in programs that aim to develop dual language proficiency along with academic achievement. These two-way immersion education¹ programs are attracting attention as an effective way to educate both language minority and majority students.

Two-way immersion programs integrate lan-

guage minority and language majority students and provide instruction in, and through, two languages. One is the native language (L1) of the language minority students (called here the target language), and the second is English. These programs provide content area instruction and language development in both languages. In order to achieve the full benefits of two-way immersion education, students from the two language backgrounds are in each class, and they are integrated for most or all of their content instruction. These programs provide an environment that promotes positive attitudes toward both languages and cultures and is supportive of full bilingual proficiency for both native and nonnative speakers of English.

The two-way immersion approach is not a new one; in fact, some bilingual education programs operating in the 1960s shared many of the characteristics of what we know today as two-way immersion education. Students from

two language backgrounds participated, and bilingualism for all students was one of the goals. Several programs that began in the 1960s and 1970s (for example, the Coral Way Bilingual Elementary School in Miami)² continue this type of instruction through the present. Since the mid 1980s, however, the two-way approach has attracted renewed interest, and many new programs have been established. This interest was likely the result of a convergence of factors, including increased attention to foreign language (FL) learning for English speakers, research on effective programs for educating language minority students, and the availability of federal and state funding for programs using this approach.

In this article, the current state of two-way immersion education in the U.S. will be described. The findings come from a study in which researchers collected information about two-way programs from over 160 schools during the 1991–1992, 1992–1993, and 1993–1994 school years. Following a short review of the goals and rationale for two-way programs, the results of the study will be discussed. Two-way programs share many features but vary in significant ways as well,³ and these areas of variability in implementation will be one focus of this report. There are also a number of unanswered questions about how to handle certain issues; these were voiced as concerns by schools during the course of the study and will be discussed in a later section.

GOALS AND RATIONALE

Typical goals for two-way immersion programs include language, academic, and affective dimensions: Students will (a) develop high levels of proficiency in their L1 and in a second language (L2); (b) perform at or above grade level in academic areas in both languages; (c) demonstrate positive crosscultural attitudes and behaviors and high levels of self-esteem. It is important to note that this educational approach does not emphasize language development over academic and social development; the goal is balanced development in all three areas.

The rationale for two-way immersion education has been discussed in other publications (see Lindholm, 1990; Tucker, 1990). Two-way immersion applies many of the recommendations that have come from recent research on education and language learning. Several will be mentioned briefly here.

There is considerable evidence that learning through the L1 has many advantages for language minority students (see Cummins, 1981). It facilitates the development of both “basic” and “advanced” literacy (see Krashen, 1991) in the L1 and in English; it allows students to gain important content knowledge that, in turn, will make the English they encounter more comprehensible (Krashen, 1991); and it enhances cognitive and social development (Hakuta, 1986). Many schools treat the L1 of minority students as a problem to be overcome, adopting a remedial attitude, with its attendant negative connotations. Minority students can benefit greatly, however, from “additive” bilingual environments (Lambert, 1987) fostered by two-way programs, where students’ L1s are highly valued and their language knowledge is considered a resource.

It is also important for fluent speakers of English to have an opportunity to learn another language. Research has demonstrated that these students, who speak the majority language of the wider society, benefit from an immersion experience for language learning and do not suffer academically when instruction is provided via an L2 (Genesee, 1987; Harley, Allen, Cummins, & Swain, 1990). By uniting these two groups of students, two-way immersion programs help to expand our nation’s overall language competence by conserving and enhancing the language resources that minority students bring to school with them and by promoting the learning of other languages by English speakers.⁴

The two-way immersion approach, moreover, incorporates effective language teaching methods. In two-way classrooms, the students learn language primarily through content. Many researchers have come to the conclusion that language is best developed within a content-based curriculum, rather than as the object of classroom instruction (Short, 1993; Snow, Met, & Genesee, 1989). One teacher from a two-way immersion program commented: “We don’t say that we teach Spanish—we say that we teach math in English and Spanish” (reported in Corral, 1991, p. 17).

In addition, the social interactional features of two-way immersion programs support better opportunities for language development. Both L1 and L2 acquisition are facilitated by interaction between the “novice” (the learner of the language) and “experts” (fluent speakers of the language). By integrating students from two language groups in a classroom, two-way im-

mersion programs offer the language learner access to L1 models. This additive bilingual environment supports the ongoing development of the L1 while an L2 is learned.

Based on an examination of research on bilingual and immersion education, Lindholm (1990) identified a set of factors that are essential for successful two-way immersion education. Some of these criteria are:

1. Programs should provide a minimum of 4 to 6 years of bilingual instruction to participating students.

2. The focus of instruction should be the same core academic curriculum that students in other programs experience.

3. Optimal language input (input that is comprehensible, interesting, and of sufficient quantity) as well as opportunities for output should be provided to students, including quality language arts instruction in both languages.

4. The target (non-English) language should be used for instruction a minimum of 50% of the time (to a maximum of 90% in the early grades) and English should be used at least 10% of the time.

5. The program should provide an additive bilingual environment where all students have the opportunity to learn an L2 while continuing to develop their L1 proficiency.

6. Classrooms should include a balance of students from the target language and English backgrounds who participate in instructional activities together.

7. Positive interactions among students should be facilitated by the use of strategies such as cooperative learning.

8. Characteristics of effective schools should be incorporated into programs, such as qualified personnel and home-school collaboration.⁵

TWO-WAY IMMERSION PROGRAMS IN THE UNITED STATES

For this study, information was collected from 169 schools that reported operating a two-way immersion program. Table 1 presents a summary of the location of these programs, showing the number of districts and schools in each state. A total of 92 school districts represent 17 states and the District of Columbia in the list.

Some basic characteristics of these programs are shown in Tables 2 through 4. Table 2 shows their distribution by grade level. Table 3 lists the languages of instruction. Finally, a look at the age of the program is of interest: Table 4 presents the number of years that schools have

TABLE 1
Two-Way Immersion Programs by State

State	Number of Districts	Number of Schools
Alaska	1	1
Arizona	4	8
California	28	57
Colorado	1	3
Connecticut	2	2
District of Columbia	1	1
Florida	2	6
Illinois	2	8
Massachusetts	6	12
Michigan	1	1
New Jersey	1	1
New Mexico	1	1
New York	31	50
Oregon	1	3
Pennsylvania	1	1
Texas	5	8
Virginia	3	5
Wisconsin	1	1
Total	92	169

operated their two-way program. The tables show that New York and California have the highest numbers of schools involved in two-way immersion education. Nationwide, most schools with two-way immersion programs are providing instruction in Spanish and English at the elementary school level and have operated the program for fewer than 5 years.⁶ These features point to several issues of concern for the future, to be discussed later, namely: (a) the feasibility of providing instruction in target languages other than Spanish; (b) continuation of programs beyond elementary school grades; and (c) developing capacity among large numbers of new programs.

VARIABILITY IN THE IMPLEMENTATION OF PROGRAMS

Student Population

Although two-way programs are defined by the involvement of students from two different language backgrounds, they differ in which language is paired with English and in the proportion of speakers of the two languages. As we have seen above, Spanish remains the most prevalent target language in U.S. programs, but interest in other languages is growing.⁷ The feasibility of offering a program in a particular language relates directly to the number of potential students from that background and the

TABLE 2
Grade Levels Served in Two-Way Immersion Programs

Grade Levels Served	Number of Schools
Pre-K	2
K - 6	147
K - 8	4
K - 12	2
6 - 9	12
9 - 12	2
Total	169

TABLE 3
Languages of Instruction in Two-Way Immersion Programs

Languages of Instruction	Number of Schools
Spanish/English	155
Cantonese/English	4
Korean/English	3
Navajo/English	2
Japanese/English	2
Russian/English	1
Portuguese/English	1
French/English	1
Total	169

TABLE 4
Year of Establishment for Two-Way Immersion Programs; 5-Year Intervals, 1963–1993

Year established	Number of schools	% of total
1989–1993	113	66.86
1984–1988	28	16.57
1979–1983	14	8.28
1974–1978	4	2.37
1969–1973	6	3.55
1963–1968	4	2.37
Total	169	100.00

availability of resources (especially qualified teachers) to support instruction in the language.

The proportions of students in the two language groups vary across programs and across individual classes. While the approach works best when the numbers of students are balanced, there are many reasons why this may not always be feasible. Some districts want the program to be open to all students. A first come, first served policy does not, however, guarantee the desired balance of students. In other cases, attrition at upper grade levels may be uneven, so that one language group becomes dominant at a particular grade level.

Programs also differ in how they enroll students, both initially and in upper grades. Neighbor-

hood schools operate differently from magnet programs, of course, but there are typically a restricted number of places to be filled each year in the two-way program, and so some selection process occurs. Even when parents can sign their children up on a first come, first served basis, programs often consider language background and proficiency in order to work toward balanced numbers of students. Some districts screen students for other characteristics (such as learning disabilities, speech or hearing problems), but many do not.

Programs differ in their policy on admitting newcomers to the program at upper grade levels as well. Some set an upper limit: For example, no new students may enter the program above third grade. Such limits derive from the level of bilingual proficiency that students will have developed by that grade and the difficulty a monolingual speaker of either language might have in catching up. Other programs make all admissions on an individual basis, considering a student's language proficiency along with other factors. In some cases, programs have a policy of distinguishing between students' target-language and English-language background, allowing target-language speakers to enter at upper grades, because the program may be the only source of L1 instruction for minority students.

To counter the problem of attrition and falling numbers in the upper grades of a program, some schools set up additional classes at the lower grade levels. With two or more classes at the earliest grade levels, for example, there is a better chance that enough students will remain in the program at the upper grades to constitute a full class.

Program Features

Even a cursory examination of two-way immersion programs reveals a wide range of differences in implementation. Some variations are a function of local policy, as in the definition of school boundaries. Some programs are neighborhood based and only enroll students from the local neighborhood. Others are magnet schools and have open enrollment for students from throughout the district. Some programs operate under a combination of these conditions; for example, they might give preference to neighborhood students, but fill openings in the program with applicants from other areas of the district. In nearly all cases, participation is voluntary, and parents choose to

enroll their children in the program. Other variable features stemming from local policy or budget decisions include staffing (e.g., presence of aides in the classes), special resources (e.g., target language reference books), summer sessions, and language classes for parents (in the target language, in English, or in both).

Programs also differ in grade levels served. Most programs begin at the kindergarten or first grade level (a few have preschool components) and extend through the elementary span of the school (usually fifth or sixth grade). Articulation beyond elementary school has become a major concern for many districts, and so far few have instituted a full K–12 sequence.

Program Design

Although most programs share similar goals, design choices vary considerably. In some cases, the choices represent concessions to local conditions, such as demographics or community attitudes (e.g., a neighborhood school with relatively few native English speakers may choose to go forward with a two-way program without a balance of language backgrounds represented in each class). At this point, we do not have good evidence linking such differences in programs to differences in outcomes. We will return to this issue in the discussion of implementation concerns.

Major differences can be grouped into two dimensions of program design: allocation of languages of instruction and extent of student integration.

Allocation of Languages. The distribution of the two languages of instruction varies from program to program. The languages are typically kept separate in one of three ways (or a combination of them): (a) by content area (e.g., social studies and math are taught in Spanish, while science, art, and music are taught in English); (b) by time (e.g., instruction is in each language on alternate days); (c) by person (e.g., one teacher uses only Cantonese and another uses only English).

The distribution of languages interacts closely with the amount of target (non-English) language used for instruction. This interaction defines in a sense the structure of the program. There appear to be two major patterns followed in the elementary schools (where one finds the bulk of two-way immersion programs). In one, the “90/10” model, the target language is used in the early years for nearly all of the instruction (usually about 90%), and English is gradually

increased as a medium of instruction until in the upper elementary grades the proportion of English instruction is roughly 50%.⁸ In these programs, the majority students have an immersion experience in the L2, while the minority students receive L1 instruction with a gradual introduction of English and English-medium instruction.

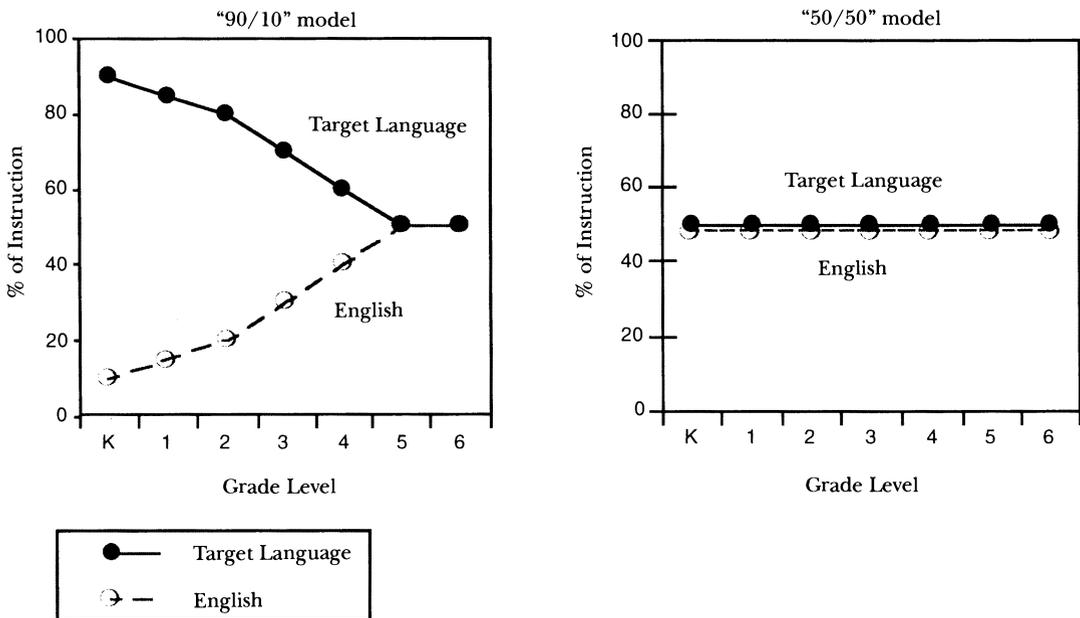
According to the second pattern, or “50/50” model, the percentage of instruction in each language is roughly equal from the beginning.⁹ Many programs have English as a second language (ESL) and Spanish as a second language (SSL) or other explicit target language instruction as well. Figure 1 depicts the language allocation sequence of the two basic models.

These two patterns are by far the most prevalent ways in which two-way immersion programs organize the instructional use of language, at least at the elementary level. Approximately three fourths of the elementary schools in the sample follow one of these patterns. The models are about equally represented, with a possible geographical bias. Most (but not all) of the 90/10 programs are found in the western U.S. (especially California), and most (but not all) of the 50/50 programs are found in the eastern, midwestern, and southern U.S. The remaining one fourth of the schools have levels of target language instruction less than 50% (some offer 33% to 40%, for example) or they separate the students by language background for parts of the day so there is not a common level of target language instruction for the whole class.

There are a variety of program designs above the elementary school level, but programs at the higher grades are relatively few overall (see Table 2, p. 69). At this point, most secondary programs appear to be constrained by available resources and scheduling issues. They generally offer an idiosyncratic set of content and language arts courses in the target language for students coming from elementary school two-way programs, depending on the availability of teachers and numbers of students involved. The most frequently named content areas for target language instruction were science, math, and social studies.

Student Integration. Differences in local policies and beliefs show up in varying degrees of integration of students from the two language backgrounds. In many programs, students from both groups are integrated virtually all the time; that is, they are never separated on the basis of language background (although individuals or

FIGURE 1
Allocation of Languages of Instruction in Two-Way Programs: Two Models



small groups may go out for special services, as in any school, such as for lessons on musical instruments or special tutoring). Other programs devote up to an hour a day to language instruction, dividing the students by L1 so they may receive tailored L2 instruction (ESL, SSL, and so on). During the rest of the day, the students are fully integrated, however, for all other content instruction.

In some programs, students are placed in separate classes by language background and then integrated with a partner class for some time each day or week. In such a Spanish/English program, English-speaking first graders might be in one class and Spanish-language-background students might be in another. They would receive parallel instruction in content areas, in one or both languages, and learn the other language as an L2, apart from one another. For some portion of each day or week, the two classes would come together for instruction in Spanish (a math lesson or Hispanic culture activities, for instance). As a result, these programs follow neither the 90/10 nor the 50/50 model described above. They often give both groups of students more instruction in their L1 (80% or more) and gradually increase the amount of L2 instruction at higher grade levels, bringing the students together for some activities. In those cases, both groups of students have access to L2 growth, and the lan-

guage minority students have the opportunity to develop a strong educational foundation in their L1. With less opportunity for cross-group interaction, however, the students are not likely to realize the full benefits of a two-way approach.

INSTRUCTIONAL FEATURES

Teachers in two-way immersion programs employ a wide variety of instructional approaches and strategies and in that way resemble any cross-section of educators. However, because of the distinctive character of two-way classes, certain instructional approaches are better suited to them than others.

When students from two language backgrounds are together for content instruction, teachers must always consider that some students are learning that content through a language they do not speak natively. As a result, strategies that make instruction more comprehensible to nonnative speakers (sometimes referred to as sheltered instruction) play an important role. Experiential, or hands-on, learning works especially well, because students can get meaning from experience as well as from language. Some programs have found that thematic units help students make connections across content areas and languages. In general, multiple cues give students additional chances to master concepts they are learning or to fill

out supporting details. Graphic representations, such as a semantic web, following small group discussion, direct experience on a field trip, or reading of text material, help students pick up relationships that were missed in other formats and reinforce new vocabulary and concepts. Whole language approaches are also effective, because they allow students to build on their strengths in both languages.

Learning environments that emphasize peer interaction provide a supportive foundation for two-way programs for several reasons. One of the biggest advantages of two-way programs for language development is the presence of native-speaker models for both languages. Students can only tap the language resources of fellow students if they have sustained opportunities for interaction. The assistance of peers who are native speakers of the language of instruction can also be key to understanding content in an L2. Moreover, the chance to promote positive crosscultural attitudes and appreciation will be diminished if students from different backgrounds seldom interact. Cooperative learning, peer coaching, and other formats that promote interactive, student-centered classrooms (Holt, 1993), then, are more likely to yield the full benefits of two-way immersion education than those that are teacher-centered.

EMERGING RESULTS

Although research on two-way programs is fairly scant, there are studies that report on student outcomes, including numerous evaluations of individual programs.¹⁰ Emerging results from program evaluations around the country point to their effectiveness in promoting academic achievement for minority and majority students, along with high levels of bilingual proficiency for both groups.

In a study of school districts in California using two-way immersion, Lindholm and Gavlek (1994) found that in four schools where the program operates through at least fifth or sixth grade, 75% to 92% of the nonnative-English-speaking fifth and sixth graders were rated as fluent in English on a teacher rating instrument called the Student Oral Language Observation Matrix or SOLOM. On standardized assessments of math achievement, that group ranked in the 25th to 72nd percentile on tests given in English and in the 25th to 90th percentile on tests given in Spanish. In the same schools, 67% to 100% of the English-background students were rated as fluent in Spanish (on the

SOLOM) by fifth grade, with math achievement results of 54th to 91st percentile in English and 37th to 96th percentile in Spanish. Lindholm and Gavlek concluded that their results demonstrated "the success of the bilingual immersion model in achieving the desired outcomes of bilingual proficiency, achievement at or above grade level, and positive psychosocial competence," but "there were major variations . . . within . . . and across school sites" (p. 98).

A broader review of evaluation studies yielded similar results. Mahrer and Christian (1993) compiled student outcome and other data from year-end evaluation reports that they collected from programs around the country in another phase of the study reported here. While many programs showed strong language proficiency and academic achievement outcomes for both native and nonnative English speakers, there was wide variation.

A prime concern for educators and parents alike relates to the long-term effects of two-way programs. Ongoing research being conducted by Collier (1995) on nonnative-English-speaking students in five urban districts shows that the greatest educational gains are achieved by students who were in two-way programs (compared to other bilingual programs and ESL). While the differences are not so great in the early years, by secondary school, the effects are clear.

There is also some evidence emerging about the social and psychological outcomes of two-way immersion programs. Cazabon, Lambert, and Hall (1993) examined social networks in the classroom and perceived competence ratings among students in one such program. Using sociometric questionnaires, they found that by third grade, students "develop friendships in the classroom quite independent of race or ethnicity" (p. 25). On perceived competence, a measure of self-esteem, both Spanish-background and English-background students showed high levels of academic and personal satisfaction. In a subsequent study of the same program, Lambert and Cazabon (1994, p. 4) found a "clear preference for having friends from both [Anglo and Hispanic] groups" and for mixed ethnic/racial classrooms as opposed to ethnically segregated schooling. These results indicate that social and psychological goals related to attitudes and self-esteem may be fostered by the two-way immersion approach.

These various reports and studies demonstrate that two-way immersion education can be an effective model for teaching academic sub-

jects, for teaching other languages to English-speaking students, for teaching English to students from other language backgrounds, and for fostering positive crosscultural attitudes and self-esteem among students. There are, however, many questions that remain concerning matters of implementation and factors responsible for variations in student outcomes.

ISSUES IN IMPLEMENTATION

As educators begin to plan a new two-way program or look for ways to extend or improve an existing one, many questions arise: Are the necessary ingredients here for a successful program? Will the model that works in that school district work in ours? What would happen if we increased (or decreased) the amount of instruction given in Spanish? What do the students need in order to help them maintain their Spanish proficiency? And so on. Although the basic goals and features of two-way immersion education are fairly well defined, many issues of implementation are not.

As discussed in some detail above, there are many variations in program design. At this point, we can only speculate on the consequences of choosing one or another alternative. There may be different outcomes for students whose programs use different amounts of the target language for instruction (contrast those that begin with 90% or more target language with those that start at 50%). We might speculate that a higher level of target language use will lead to higher proficiency levels, but other factors of the local context may intervene. For example, will the difference in proficiency, if any, persist once the student finishes the program? The effects of different ways of distributing the languages of instruction are also unknown. Is there a reason to prefer a time-based distribution (e.g., alternate days) over a content area distribution? Sociocultural factors in the school and community (such as attitudes toward the target language and prior intergroup relations) may also bear on aspects of program design; certainly, demographic features are relevant.

Another concern of program implementers is attrition and the related question of late admission to the program. Many schools experience high transiency rates. Can a two-way program be successful in such a context? Can newcomers be incorporated on an ongoing basis, or is there a point beyond which it may be too difficult for the student? Many programs have guidelines

that set a limit at second or third grade for newcomers to the program, with individual cases considered when a student arrives with dual language proficiency. The issue comes up again at the secondary level, when target language classes organized for students from two-way programs might provide LI instruction for newcomer language minority students. What are the advantages and disadvantages of combining the two populations of students?

The question of attrition leads directly to myriad issues of articulation from elementary to secondary schools. As noted earlier, many two-way programs are relatively young. Following the common practice of adding a grade level each year, these programs will soon face the question of what happens to their students after elementary school. If they move to an all-English program, their target language development may be arrested and would likely decline.

Many educators recommend continuing substantial amounts of content instruction in the target language, along with appropriate levels of language arts, in order for the students to maintain and to continue to develop target language proficiency. Such a plan, however, runs into serious practical roadblocks in secondary schools: availability of qualified teachers, scheduling, graduation requirements, and so on. Also, low numbers of students interested in these courses may limit the flexibility of schools to offer them. (Naturally, if multiple elementary programs fed into secondary schools, the problem of low numbers could be reduced.) Serious attention must be focused soon on identifying practical strategies for providing effective continuation of two-way programs at the secondary level.

A third area of interest is the development of programs in diverse languages. At the moment, most programs operate in Spanish and English. This fact stems obviously from the demographic features of contemporary schools. However, there are certainly large enough numbers of speakers of other languages in our schools to make the implementation of a two-way immersion program at least feasible. Significant numbers of speakers of Vietnamese, Chinese, Arabic, Korean, and many other languages enter our schools each year. One constraint on program implementation in other languages comes from community attitudes. Community members (especially the parents of potential students) need to see a value in learning (or maintaining) the language in question so that they

will support the program by enrolling their children or by committing resources to it. Another constraint is the availability of resources, including qualified teachers, texts, and sources of support. Currently, two-way programs operate in Cantonese, Korean, Japanese, Navajo, Russian, Portuguese, and French, and we can look to them for guidance for the future.

There are some pertinent questions raised about programs in languages that do not share the alphabet with English (such as Chinese, Russian, and Arabic). These questions relate particularly to the development of literacy skills and the transfer of skills and knowledge between the two languages. Further research should help us address such questions.

One final issue should be mentioned here. There is growing concern for target language maintenance and development, its very survival, in the face of the dominance and power of English in our society, particularly as students move into adolescence. This is a concern for both language minority and majority students. McCollum (1993), for example, found that in a middle school two-way immersion program, Spanish-background students used primarily English at school. She argues that, among other factors, the students perceived English, not Spanish, as the "language of power" and reacted accordingly. Others have found that for minority students, societal pressures promote assimilation to English, with a decline of the L1, even when they participate in specially designed programs (Landry & Allard, 1991). Tarone and Swain (1995) document a similar issue for (one-way) immersion programs in the U.S. and Canada. Their research shows that students use the target (second) language to a much greater extent for peer interactions at lower grade levels (when they are presumably less proficient) than at higher grade levels. The authors suggest a sociolinguistic explanation for this phenomenon, in that students may not have learned the vernacular style of the target language that they would need to interact with peers in nonacademic situations. A diglossic situation results, where the L1 is used for social purposes and the L2 is used for academic purposes. It might be expected that the presence of native speakers of the target language in two-way programs would counteract this tendency, but some evidence suggests that this is not the case.

The preservation and development of skills in a language other than English in the school setting require focused attention. The degree of

difficulty depends on a complex array of socio-cultural and individual factors. Some programs have increased the level of target language instruction to strengthen it (e.g., moving from 50% to 90% target language use). Others have noted the importance of ensuring that a class has at least 50% native speakers of the target language. Some advocate tipping the balance more in that direction, to 60%. Some educators stress the need for teachers to reinforce the learning and use of the target language more forcefully and effectively, looking for a response in individual classrooms rather than in program design. We need to build our knowledge base about which approaches and strategies are most effective in promoting target language development and maintenance.

CONCLUSIONS

Two-way immersion programs address several serious issues facing education in the U.S. today. They provide an effective approach to educating the growing number of nonnative-English-speaking students in our schools in an additive bilingual environment that promotes L1 and English language development, as well as academic progress. They promise to expand our nation's language resources by conserving the language skills minority students bring with them and by adding another language to the repertoire of English-speaking students. Finally, they offer the hope of improving relationships between majority and minority groups by enhancing crosscultural understanding and appreciation.

By and large, two-way programs share the goals of dual language proficiency and academic achievement for minority and majority students learning together. They vary a good deal, however, in the approaches and strategies they use to work toward those goals. Much of the variability can be seen as an asset, demonstrating the flexibility needed to meet local conditions. Some issues, however, reflect concerns that remain to be addressed through accumulated experience and additional research.¹¹

NOTES

¹ There are a number of other terms in current use for programs using this approach, including bilingual immersion, two-way bilingual, developmental bilingual, and dual language programs.

² The Coral Way Bilingual Elementary School in Miami, Florida, began its Spanish/English bilingual

program in 1963. The school serves the neighborhood population in pre-Kindergarten through fifth grade and seeks to help all students become “bilingual, biliterate, and bicultural.”

³ One interesting variation in two-way programs can be found in Washington, DC’s James F. Oyster Bilingual Elementary School, which has a program with a long history. Begun in 1971, the Oyster School program enrolls students from pre-Kindergarten through 6th grade. Its unusual model places two teachers in each classroom—one English speaker and one Spanish speaker—and the language of instruction is determined by which teacher is providing the instruction.

⁴ Two-way immersion education combines the bilingual education model for language minority students with the foreign language immersion model for English speakers. Culver City, California has had Spanish language immersion for English speakers for over 20 years. In 1990, a two-way program was instituted at the middle and high schools, bringing together students from the immersion program with native Spanish speakers. Students learn a content area (social studies, geography) and language arts together in Spanish.

⁵ Adapted from Lindholm (1990, pp. 96–101; see that discussion for the full set of criteria and research references).

⁶ The Alvin S. Hatch Elementary School in Half Moon Bay, California is a typical two-way program. Founded in 1991 with a Kindergarten-level class, this Spanish/English program is expanding by one grade level per year until the program covers kindergarten through Grade 5. The district’s long-range goal is to extend the program through Grade 12.

⁷ The Los Angeles, California area, for example, has two-way programs with target languages other than Spanish. In 1990, the Elliot Elementary School in Artesia, California began its Portuguese/English program with a Kindergarten/first grade class and is adding one grade level per year. Teachers have translated “big books” into Portuguese and have made big books from original Portuguese literature. A Korean/English program operates at three elementary schools in Los Angeles Unified School District. Instruction began with a Kindergarten class in 1992 at Cahuenga School, in 1993 at Denker Avenue and Wilton Place Schools, and is expanding one grade level each year. Classes feature computer use in both Korean and English.

⁸ One example of the “90/10” model can be found at the Washington Elementary School in San Jose, California, where students in kindergarten and first grade spend 90% of their school day receiving instruction via the Spanish language. All students receive their initial reading instruction in Spanish. In second and third grade, Spanish is the language of instruction 80% of the time. During the English portion of the day (10% at K–1 and 20% at 2–3), language arts is taught, with formal instruction in English reading introduced in third grade. Fourth and fifth

graders approach an even split between the two languages, with 50% to 60% of their instruction via Spanish and the remainder in English.

⁹ An example of the “50/50” model can be found in the Amigos Program in Cambridge, Massachusetts. The program operates at two sites, the Maynard School for Grades K–3 and the Kennedy School for Grades 4–6. It began in 1986 with kindergarten students and added one grade level per year, so that a full K–6 program has been offered since 1992. At K–1, students have instruction in Spanish and English on alternate days. From second grade on, the language of instruction is alternated by weeks, with students receiving instruction for one week in Spanish and the next week in English.

¹⁰ One report from an individual program comes from the Key Elementary School in Arlington, Virginia. In this program, student oral skills in Spanish have been shown to improve year to year, as measured by the Student Oral Proficiency Rating (SOPR) scale and the Language Assessment Scales (LAS) test (Barfield & Rhodes, 1993). English skills develop at an even faster rate. At the same time, students demonstrate progress academically. The fourth grade students (academic year 1992–1993) scored at the fifth- or sixth-grade level in all subtests (including vocabulary, reading comprehension, social studies, science, and math) of the Iowa Test of Basic Skills (ITBS). The class mean was above that of the non-two-way classes at Key as well as above the state and national means (Barfield & Rhodes, 1993).

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