Two-way bilingual education (also known as bilingual immersion, two-way immersion, developmental bilingual, and dual language programs) has taken root in many schools across the United States. In these programs, students develop dual language proficiency by receiving instruction in English and another language in a classroom that is usually comprised of half native speakers of English and half native speakers of the target language. While Spanish is currently the most common target language represented in two-way programs, other programs support learning through Cantonese, Korean, Japanese, Navajo, Russian, Portuguese, and French. Two-way programs provide both sets of students with ample exposure to the two languages, allowing them to progress academically in both languages and gain an appreciation of another culture.

Two-way bilingual programs work toward academic, language, and affective goals. Language minority students benefit from the opportunity to develop and learn through their native language as well as English (Krashen, 1991), and English speakers achieve well academically in an immersion environment (Genesee, 1987; Harley, Allen, Cummins, & Swain, 1990). The additive bilingual environment supports development of both languages and enhances students’ self-esteem and cross-cultural understanding (Christian, 1994).

Implementation Issues
The two-way curriculum is content based and focuses on the development of strong academic achievement in both languages. Because students learn content through a language they do not speak natively, techniques that make instruction more comprehensible are preferred. The strategies teachers use most often include experiential or hands-on activities, thematic units, peer interaction, multiple cues that give students additional chances to master concepts (e.g., a graphic representation such as a semantic web followed by discussion or direct experience on a field trip), and whole language approaches.

While the goals of two-way bilingual programs generally remain constant, the methods through which these goals are realized depend largely on local conditions, demographics, and community attitudes. As a result, each program makes a selection from a variety of modes of instruction. For example, a program may allocate the two languages by content (e.g., social studies and math are taught in Spanish, while science, arts, and music are taught in English); by time (e.g., instruction in each language on alternate days); or by person (e.g., one teacher uses only Cantonese and another uses only English). Some programs operate as magnets within their districts; others are strictly neighborhood based.

Two-way programs also follow different language development models. The two most popular are the "50/50" model, in which the students receive instruction for equal amounts of time in the two languages, and the "90/10" model, in which about 90% of the instruction is in the target language with about 10% in English in the early grades, gradually moving toward 50/50 in the upper grades.
The way in which students are integrated varies somewhat as well. Many programs never separate the students based on their language background, while others provide specific second language instruction to segregated groups every day. However, as Christian (1994) points out, cross-group interaction helps students realize the full benefits of the two-way approach, since the presence of native speakers of both language groups makes the environment of two-way programs more conducive to second language learning.

Future Directions and Concerns
As noted, choices in program design and instruction must be made as two-way programs are planned, but the effects of various alternatives are not fully known. Another concern is articulation: There are few two-way programs that continue on to the secondary level. Because target language development and maintenance require ongoing support, students' proficiency in the target language may decline after they enter secondary school.

A growing area of interest is the development of two-way bilingual programs in diverse languages. Although Spanish is the most common target language used in these programs at this time, some communities where other languages are predominant may benefit from two-way programs. Interest also prevails in establishing programs at the secondary level to continue target language development and maintenance. Community and parental support are crucial for the creation and prolonged existence of these programs.

Emerging Results of Two-Way Bilingual Programs
Various reports and statistics reveal that the two-way approach is effective not only in the teaching of two languages to both language groups but also in the development of academic excellence. Lindholm and Gavlek (1994) cite examples of schools with two-way programs where student achievement on several standardized tests - including math achievement tests in English and Spanish - demonstrate academic progress as well as fluency in both languages. While the researchers noticed major variations within and across school sites, it was clear that the students were achieving the desired levels of bilingual proficiency. Ongoing research by Collier (1994) in five urban districts shows that language minority (Hispanic) students in two-way programs experience more long-term educational gains than students in other bilingual or English as a second language (ESL) programs.

The Amigos Program: A Local View
"Design of the Program." The Amigos program was established in Cambridge, MA in 1985-1986 and now serves nearly 300 students. It was the result of a collaborative effort of parents, teachers, and administrators of the Cambridge Public Schools who wished to develop a program that would combine the best features of transitional bilingual education for limited-English-proficient (LEP) students and language immersion for native English speakers. Following the "50/50" model, the Amigos Program is comprised of 50% LEP Hispanics and 50% non-Hispanic English speakers. Each class consists of a Spanish-speaking teacher and an English-speaking teacher who maintain separate language environments for the students. Student progress is evaluated through standardized tests and portfolio assessment (Cazabon, Lambert, & Hall, 1992).
"Assessment of the Program." Cazabon, Lambert, and Hall (1992) compared students in the Amigos program with two separate groups of students in the Cambridge Public Schools: the English-Amigos were compared with English controls (native English speakers) from an all-English public school program and the Spanish-Amigos were compared with Spanish controls (native Spanish speakers) in a standard bilingual education program. These control groups were equated with Amigos students on social class background and a non-verbal measure of intelligence (Raven's test). A series of tests were given to the Amigos and to the comparison groups in order to determine the students' achievement in both languages. Because the tests differ in the way they measure students' language skills and academic achievement, the combination of the following results is even more indicative of the program's success. English-Amigos performed generally better on the California Achievement Test than the English controls; the Spanish-Amigos scored above the norm and higher than the Spanish controls on the same test. Both English-Amigos and Spanish-Amigos scored higher on English-based math tests, showing the Spanish-Amigos' ability to apply English to another subject area. On Spanish language tests, both English-Amigos and Spanish-Amigos demonstrated grade-level progress in reading and math; however, because the Spanish-Amigos' reading skills were somewhat below that of the Spanish controls, the Amigos program intends to focus on improving the Spanish-Amigos' Spanish reading skills in the future.

"Student Responses." In a later study (Lambert & Cazabon, 1994), Spanish-Amigos and English-Amigos were asked to complete a questionnaire about their self-perceptions as developing bilingual speakers and about their perceptions of the program and its effectiveness. The number of students involved was small; therefore, these findings only represent trends. Some of the more significant findings include the following:

**Spanish Amigos**
- feel equally competent in both languages;
- feel that their writing in Spanish is stronger than their writing in English (particularly in the older grades);
- are confident that they can understand nearly everything presented in Spanish media;
- feel comfortable translating "most things."

**English-Amigos**
- feel their English is stronger (particularly in the younger grades);
- feel that their reading skills in Spanish are stronger than their listening, speaking, or writing skills;
- can get the main idea of Spanish media but not specific details;
- feel comfortable translating "some things, but not many&;"
- feel that they are not at all behind in English but likely ahead.

**Both Groups**
- feel confident about their ability to teach both English and Spanish to their peers;
- favor speaking English over Spanish in any given social situation (especially the older students);
- reveal no ethnic or linguistic bias in their choice of close friends;
- perceive Hispanic Americans as they would other Americans;
- favor bilingual classes over monolingual classes;
- demonstrate confidence in themselves and the Amigos Program (Spanish-Amigos are even more emphatic on this point).
Conclusion
Overall, the Amigos program has shown positive results: Students achieve academically and socially and are pleased with the program. Parents, too, have indicated their satisfaction and are committed to keeping their children in the two-way approach for an extended period of time.

Lambert and Cazabon's use of student response to evaluate the Amigos program sheds new light on the effectiveness of a two-way bilingual program. Not only is it evident through parental support, clear academic achievement, and promising test scores that the program is successful, but the students themselves are expressing their satisfaction with Amigos as well. While students are in the process of becoming functionally bilingual, they are also forming friendships with students from other ethnic and linguistic backgrounds and learning to appreciate the diversity that is historically characteristic of American society but particularly fragile today.

References

This Digest is based on three reports published by the National Center for Research on Cultural Diversity and Second Language Learning, Two-Way Bilingual Education: Students Learning Through Two Languages, by Donna Christian, Two-Way Bilingual Education: A Progress Report on the Amigos Program, by Mary Cazabon, Wallace Lambert, and Geoff Hall, and Students' Views of the Amigos Programs, by Wallace Lambert and Mary Cazabon.

This report was prepared with funding from the Office of Educational Research and Improvement, U.S. Department of Education, under contract No. RR93002010. The opinions expressed do not necessarily reflect the positions or policies of OERI or ED.