DUAL LANGUAGE PROGRAMS: KEY FEATURES AND RESULTS

by María E. Torres-Guzmán

Patricia Anne DiCerbo, Editor

INTRODUCTION

The growth of so-called "dual language programs" has been swift over the last decade (Loeb, 1999), particularly during the last few years. Despite the apparent growth, however, one must be cautious. What school districts describe as dual language programs is not always clearly aligned with the technical definition -- enrichment education programs that foster language equity and are organized with the goals of bilingualism and biliteracy for all children, language minority and mainstream students alike.

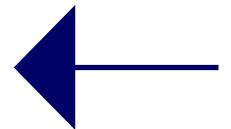
Some school districts that report that they have dual language programs have what are essentially second-language enrichment programs (Genesee, 1987), in which language majority children are learning a second language. Educators have also used the dual language label to refer to all bilingual/bicultural education programs (Leslow-Hurley, 2000) because of its literal definition as the "use of two languages." Even when dual language programs fall within the technical definition, there is variation in their implementation (Christian, Montone, Carranza, & Lindholm, 1996; Etxeberria, 1993; Lindholm, 1987).

The intent of this article is twofold: To delineate salient features of dual language programs for educators to keep in mind when making program and policy decisions; and to highlight the educational results ascribed to dual language programs in light of the broader debate surrounding bilingual education.

■ DUAL LANGUAGE PROGRAMS: A DEFINITION

In this article, dual language refers to an enrichment bilingual/multicultural education program (Hornberger, 1990) in which language equity is structurally defined as equal time exposure to two languages, that is, the 50/50 model (Etxeberria, 1993). These programs are often called developmental because the funding source (Title VII, Improving America's Schools Act, 1994) labels them as such, and because linguistic, psychological, social, and cognitive

developmental issues are taken into account in program design. They are sometimes labeled enrichment because a central tenet of such programs is that a language should be added to the one the children already know and that children's academic growth in both languages should be fostered.



In transitional bilingual education programs, the linguistic goal is to either eradicate a language (mother tongue) or substitute it with English. In the maintenance program, the linguistic goal is to maintain the mother tongue while adding the second. Enrichment programs aim to add a language to that which children already know, and foster children's academic growth in both languages. (Hornberger, 1990) This definition is in contrast to more traditional bilingual education programs, where the educational goal is to be able to function in all-English environments.

Dual language programs are often, but not always, designated as two-way. Two-way programs have existed since the 1960s, with the Coral Way, Florida bilingual alternate day model as the best-known example from this early period. It was two-way because it included mainstream English-dominant students and language minority students. It was bilingual education because it used two languages as the medium of instruction. It was also dual language (although not formerly called so) because its alternate-day structure resulted in the equitable distribution of the two languages involved.

Thomas and Collier (1997), in a study of test performance and program types with a national sample of over 45,000 students, distinguish between two enrichment bilingual education programs: two-way and one-way developmental. The primary distinction is in the student populations the programs serve. Two-way programs include both language minority and language majority children, whereas one-way developmental programs serve the language minority population. Other researchers of two-way programs have referred to this student population distinction in their studies (Christian, 1996; Christian, Montone, Carranza, & Lindholm, 1996; Christian & Whitcher, 1997; Lindholm, 1988a, 1988b, 1991, 1994).

Another designation for dual language programs is late-exit. This label comes from the Ramirez, Yuen, & Ramey (1991) study, the most comprehensive federally funded study on program types. The study, which included both ESL and bilingual education programs, classified programs according to the degree of native language use. The study's goal was to compare all programs serving students who were not proficient in English rather than just bilingual education programs. The bilingual education programs are described as early-exit or late-exit, depending on the length of time bilingual education was provided. In late-exit programs, students "receive a minimum of forty percent of their total instruction time in Spanish" and remain in the program for a longer period of time "regardless of when they are classified as fluent-English-proficient" (Ramirez et al, 1991, p.2). Both maintenance and enrichment education programs were included. In other words, the dual language model is included but not used as a distinct category.

Lindholm (1987) uses the broad term bilingual immersion education to refer to enrichment models, and has used the terms bilingual immersion and dual language interchangeably (Lindholm, 1999 and 2000). She describes these programs as possessing the following four features:

- (1) "...Instruction through two languages, where the target language is used for a significant portion of the students' instructional day..."
- (2) "...periods of instruction during which only one language is used..."
- (3) "Both native English speakers and native speakers of the target language are participants."
- (4) "The students are integrated for most content instruction." (2000, p.13)

Lindholm (1987) includes both the 90/10 and the 50/50 models as bilingual immersion, or two-way programs. The 90/10 model starts in kindergarten with a curriculum that is 90% in the native language and 10% in the second language; there is a gradual increase of English until it reaches 50% at the upper elementary level. There are usually two classes at a grade level (or team teaching) so that the increase in the second language is parallel for each of the populations, the native English and the non-native English. The 50/50 model starts in kindergarten and continues throughout the elementary level, with each language receiving half of the instructional time. Out of the 30 programs Lindholm describes in the *1987 Directory of Bilingual Immersion Programs*, 17 are of the 50/50 model.

Christian and Whitcher (1995), Valdes (1997) and Freeman (1998) similarly use Lindholm's broader definition of bilingual immersion programs when referring to dual language programs, so that this category includes the language majority population and the 90/10 structure.

Researchers have also tended to use a variety of other labels to refer to dual language, including not only two-way bilingual or immersion, but also developmental bilingual, double immersion and other terms. As some scholars point out (Christian & Malone, 1995; Freeman, 1998; and Lindholm, 1999), however, not all dual language programs are two-way, i.e., they do not include both language minority and language majority students. Morrison (1995); Foster & Swinney (n. d.), and Marquez-Lopez (1998), for example, define dual language programs as educational programs that foster language equity. A strict separation of languages for instructional purposes is part of the design, with language allocation, at the elementary level, following the 50/50 model. In some programs, a majority of the children are from the same language minority group, but differ in language proficiency.

▼ FEATURES OF DUAL LANGUAGE PROGRAMS

However defined, dual language programs foster the goals of academic achievement in English and another language, development of bilingual/biliterate skills, and positive cross-cultural attitudes. The major theoretical principles that undergird the academic and language goals are embedded in the relationship between language, learning, and cognition. It has been found that:

- (1) It takes most individuals from five to seven years to acquire the second language well enough to function academically;
- (2) One can transfer the knowledge and skills acquired in one language to the other; and
- (3) By continuing to develop the two languages, children's educational and cognitive development is enhanced (Collier, 1992, 1995; Cummins, 1992; Hakuta & Diaz, 1984).

The dual language program design follows consistent and clear linguistic, sociocultural, and educational policies, which include a variety of features:

LINGUISTIC



- Strict language separation
- Equality in language distribution
- Avoidance of simultaneous translation
- Language taught through content
- Whole-language instruction
- Goals of bilingualism and biliteracy
- Heterogeneous language grouping



- Appreciation of cultural diversity
- · Culturally relevant teaching
- Development of self-esteem
- Mix of language minority with English-speaking and mainstream students
- Cooperative group learning structure
- Parental involvement
- School/community support structure

PEDAGOGICAL



- Academic achievement for all children
- Math and literature follow distinct linguistic policy
- Developmental level team teaching structures
- Thematic organization of units of study
- Teachers as monolingual models
- Ongoing staff development

Individually, each of these features may appear in other bilingual education models. What is unique about dual language programs is how they come together to ensure equal status of the minority language with English in a structure of commitment (Morrison, 1995). Dual language programming aims at protecting minority languages and cultures, promoting their use among English-speaking students, and focusing on quality education for all.

V

LINGUISTIC FEATURES

The guiding aspect of the linguistic component is its clear policy. The dual language program design is such that the languages are kept separate at all times -- by alternating days, half days, or teachers. Exactly how the languages are distributed depends on the grade level, instructional goals, and other factors.

If the goal is to achieve equity in language, the time of instruction in each language is distributed on a 50/50 basis. In that case, taking blocks of time, such as a ten-day period, and establishing the language distribution for the period seems to be the norm (Christian, 1994). It may be that the entire ten-day block is organized in one language and the next ten-day block in the other (Bergman, Minicucci, McLaughlin, Nelson, & Woodworth, 1995). It may be that on a trimester basis, the language distribution is reorganized according to subject. The most common structures are the alternate day or half-day models. In the alternate day model, a student receives instruction in English one day and the next day is in the other language. The third day, the student returns to English. By the end of the ten-day period, the student should have received five days of instruction in English and five in the other language. If this has not occurred, for the many reasons schools must deviate from their schedule, adjustments may be necessary.

The half-day model has at least two variations. One is where the morning is designated for one language for a two-week period; during this period, the second language is the language of instruction in the afternoon. The languages change place during the next time-block. At the end of the semester, each language has received equal time. The second variation is what has been called the roller coaster or serpent model: The morning is organized in one language, while during the afternoon of that same day and the next morning, the children receive instruction in the other language. Teachers report that the roller coaster model offers continuity of work for both the students and the teacher, and permits literacy instruction to occur in both languages during the morning hours.

In some programs and at certain grade levels, depending on the school population, there are a few exceptions to the 50/50 distributions of the languages. In some two-way models, the early grades separate the English dominant from the others, and teach each group literacy in their native language. In these cases, there is usually a gradual increase in the second language until the 50/50 ratio is achieved (Martinez & Moore-O'Brien, 1993). Some programs establish a different language policy for instruction in math and literature, or the language distribution may deviate from the 50/50 rule after elementary school. References to these variations will be made in the pedagogical section.

Whether the language of instruction changes by alternating days, half-days, or teachers, the language is posted outside the door. If a person who doesn't speak the language of instruction for that class enters the room, the teacher is encouraged to direct the person outside the classroom in order to switch the language of communication. At the instructional level, teachers are encouraged to consistently use a distinct color of crayon, marker, or chalk for each language. This is especially important if the individual teacher participates in instruction in both languages (rather than team teaching). Teachers are also encouraged to organize the literature and displays in the classroom to distinguish the languages; and the children are encouraged to have different homework notebooks for each of the languages.

Avoiding simultaneous translation is yet another way in which the dual language policy is maintained. It is natural for a teacher to be tempted to translate, particularly if there is bewilderment on a child's face. Yet in these programs, teachers are encouraged to trust the long-term language-learning process, and to remember that when children know that something will be translated they will devote less effort to figuring out what the second language being spoken means. In addition, it is more tiring for teachers to teach everything twice (Legarreta-Marcaida, 1987) -- and they are more likely to translate idiomatic expressions incorrectly when they are doing direct translations. Concurrent translations, unless very systematically organized (Jacobson, 1995), also tend to be less effective educationally. Instead, when children who are still not producing in the second language speak in their first language on a day that the second language should be spoken, the teacher is encouraged to respond in the second language. Teachers are also encouraged to speak about the process of second-language learning and to offer students "strategies for getting through the non-dominant language days" (Foster & Swinney, n. d.) through gestures, eye movement, images, and so forth. Students who are dominant in the language being spoken on a given day are encouraged to help the second-language learners.

Instructional approaches are similarly organized to aid both acquisition and learning. In order to include the second-language learners, teachers develop their lessons so that verbal and nonverbal cues, visual aids, and manipulatives serve as support for learning activities. Furthermore, activities that are hands-on, that are organized in small groups, and that require conversation are important for linguistic as well as social development. Language is taught both formally and informally, and instruction is student-centered.

An integrated language philosophy (Goodman, 1986; Goodman, Goodman & Flores, 1979; Pérez & Torres-Guzmán, 1996) guides the teaching of language. Teachers are encouraged to approach language learning through the content area, thus creating a context for language use. The skills of listening, speaking, reading, and writing are integrated in authentic and meaningful language activities. Materials and discussion are centered first on the interests and experiences of the students, and then moved beyond to the wider world.

Decoding and encoding are part of the process and the means by which children send and receive messages; they are taught as they become necessary. At the same time, the teacher introduces the world of literature and provides a print-rich environment for the children. Discovery, imagination, creativity, enjoyment, and utility are all part of what teachers aim to accomplish. Again, equity requires that such environments be provided in both languages.

While languages are separated, the students are not. Children are not segregated in different programs, nor isolated instructionally according to their linguistic abilities. Teachers are encouraged to organize instructional groups that are heterogeneous linguistically and academically. In this way, students are allowed to shine on the day that the language of instruction is the one in which they are most proficient. In addition, they hear, and can practice with, native language models consistently.

The goals of the dual language program are bilingualism and biliteracy for all children. When the program is also two-way, and there is a mix of language minority and mainstream/English-speaking populations, even more is accomplished. For the language minority student, the burden of unidirectionality is lifted. Bilingualism is transformed from a deficiency perspective and a compensatory framework to a socially desirable commodity. The goal is to develop competent bilinguals who can manage and manipulate two languages and their complexities in a variety of domains. An important parallel goal is biliteracy, the ability to decode and encode print that conveys messages in a variety of contexts using two linguistic and cultural systems (Pérez & Torres-Guzman, 1996). As research suggests, the strong foundation in the first language of the child transfers to the second language, and literacy is deemed critical to all academic tasks.



SOCIOCULTURAL FEATURES

The structured relationships between the minority language and English help shake the foundations of social stigmas that come from an implicit association between how well individuals express themselves and their intelligence (Hakuta & Diaz, 1984). In two-way, dual language programs, both the language minority and the mainstream/English-speaking students are in situations where they have problems expressing clearly what they know, and they both have opportunities to share and display competence. While social prestige markers may still favor English, the experiences of learning together about each other and in each other's language can help students see each other as human beings developing cognitively, socially, and linguistically (Freeman, 1996; Torres-Guzmán, 1990). Thus, the program is designed to protect the minority culture and to promote cultural and linguistic diversity among all students (Martinez & Moore-O'Brien, 1993).

Culturally relevant teaching is a critical feature. Within this context, the following are important:

- Inclusion of original works from the worlds of the language minority groups so that the children see
 the authors as intellectual role models;
- (2) Acknowledgment of what students bring into the classroom-life experiences, cultural ways, and so forth -- as legitimate knowledge upon which to build;

- (3) Incorporation of homes as knowledge resources for curricular development (Gonzalez, 1994; Mercado & Moll, 1997; Olmedo, 1997); and the
- (4) Challenge of social expectations for the language minority children by organizing their classrooms around high expectations (Bergman et al., 1995; Ladson-Billings, 1994; Nieto, 1995).

Furthermore, self-esteem issues are taken into account (Cazabón, Lambert, & Hall, 1993). Students who see language learning as a natural process that is not threatening to their identity are less likely to resist the learning of the second language. Krashen's (1987) notion of the affective filter, the mechanism the learner uses to resist or open up to learning a second language, is a useful one. Because both language minority and English-speaking students are learning the minority language, the implicit message students receive is that the minority language is of value. The affirmation of students' identity through validation of their language can lower the affective filter of language minority students and favor the learning of English. The mainstream students' attitudes towards the language being learned are important as well. Gardner and Lambert (1972) and others have found that when individuals want to learn a second language as a means to integrating into a new cultural group, they learn the second language better. How language minority and mainstream English-speaking students view themselves and how others view them in this process is important for developing more positive self-images as second-language learners and may ultimately affect their image as academic learners (Griego-Jones, 1994).

Cooperative groups have been shown to be effective academically and socially (Calderon, 1989; Jacob & Mattson, 1995; Kagan, 1986; Slavin, 1990). In order to create instructional structures where children have an opportunity to practice talking (Cazden, 1984), cooperative groups that are engaged in hands-on activities are encouraged. Because the language groups are mixed, there are language role models, there is room for multiple talent, and students receive social support from each other (Crushner, McClelland, & Stafford, 1992). Non-English proficient children will still experience some frustration going through the process of learning in their second language, but no longer will this process be structured in a way that isolates them. English-speaking classmates will understand, emotionally and cognitively, what the process of second-language learning is, since they are also going through it. Understanding the process will predispose students to helping each other and to creating the classroom community.

Parental involvement is a critical component for all children. All parents, mainstream and minority, are asked to trust and support the process (Cazabón et al., 1993). One of the commitments they must make is to keep their children in the program for a certain number of years. Another is to support the minority language actively in a variety of ways. Parents are encouraged to take courses in the second language, to volunteer, to attend monthly meetings, and to meet with teachers on curriculum nights. Ramirez et al. (1991) found that these types of programs promote greater involvement of minority parents. Although the ways that language minority parents show support for and participate in schools vary (Marquez-Lopez, 1998), parents are more likely to move from a role of support (Delgado-Gaitán, 1987) to a more active role (Rubio, 1995).

Dual language programs also increase parental involvement because there is an environment in which both languages are encouraged throughout the building (Freeman, 1996; Morrison, 1995). A strategy used to promote the use of minority languages within the school is to physically organize the classrooms into clusters or houses. Usually, a good number of the staff, including the front office, speaks the minority language. Loudspeaker announcements, correspondence to students' homes, and other official school business are in both languages.



PEDAGOGICAL FEATURES

By setting up dual language programs that ask parents for a long-term commitment, schools can design solid academic programs for all children while also attending to the unique needs of language minorities (Collier, 1992, 1995). Dual language programs aim to reach high levels of achievement for all children. As Ramirez, et al. (1991) found from the late-exit programs they studied, students who had greater opportunities to develop strong foundations in the native language not only began to close the gap between themselves and the norming population, they also performed better than the norming population in the long-run. Moreover, dual language classrooms take into consideration children's developmental learning needs, structuring the language and delivery of instruction appropriately. For example, self-contained classrooms where it is the teacher who switches languages daily is considered the most appropriate approach for K-2 because of this group's developmental attachment issues. Beginning in grade 3, teachers are either in self-contained settings or in team teaching situations where the students are the ones to change classes. Teachers in team teaching situations get to select the subjects and to plan their curriculum with more freedom (Bergman et al. 1995; Foster & Swinney, n. d.; Freeman, 1996). Recent developments such as looping, in which teachers stay with the same children more than one year, enable teams of teachers to deal more effectively with the large number of students.

The thematic organization of units of study and the interdisciplinary curriculum are compatible with the structure of dual language programs because of the team teaching approach. The study of patterns, a mathematically based concept, can be developed in both languages and can go in many directions for varying amounts of time across grade levels. This is also possible in the middle school, where extended instructional periods and trimesters can be organized so that all the subjects are covered in both languages and the language needs of language minorities are met.

To avoid simultaneous translation, teachers try to avoid teaching the same subjects or the same units. For example, a teacher team may decided that for one semester or for one unit, Teacher A may teach social studies in English while Teacher B builds on the concepts in the second language through a different unit or through supplementary readings during literature. In the meantime, Teacher B concentrates on science in the second language, which Teacher A will pick up at a later date. Or, they both choose to teach social studies where one part of the world (e.g., Europe) is studied in English and another part (e.g., Asia) in the other language. There is a lot more flexibility in the curriculum of the latter model, but it requires coordination and collaborative planning between teachers. Some teachers have reported the coordination of chapter books for read-alouds so that the children are able to follow the storyline, whether in the first or the second language. Team teaching also requires discussing the assessment and progress of all children together, sitting down with parents during conferences together, and scheduling periods for joint work (Bergman et al., 1995).

Whatever the structure, teachers are provided ongoing staff development. Staff developers may concen trate on new teachers and serve as mentors; they may organize after-school literature groups where teachers decide what literature they would like to concentrate on, especially in the non-English language; they may video-tape and engage teachers in reflection on teaching practices individually and in groups; or they may promote teacher research and study groups.

THE SIGNIFICANCE OF DUAL LANGUAGE PROGRAMS



The growing significance of dual language programs can be examined in light of the claims made about the effectiveness of bilingual education. Studies of dual language programs can help us think through the social and academic issues raised by these debates. In this section, we will look at four claims, using the findings from studies of schools that use the 50/50 model (Cazabón et al., 1993; Cazabón, Nicoladis, & Lambert, 1999; Christian et al., 1996; Freeman, 1996, 1998; Howard & Christian, 1997; Mahrer & Christian, 1993).

Claim: Bilingual education programs by design segregate language minorities.

Dual language programs, along with many other two-way programs of different types, are designed to bring language minority and mainstream students together at the program and instructional level (Cazabón et al., 1993). Segregation is avoided at the program level where there is a mix of students. As noted, the unidirectional social burden of bilingualism for the language minority child is also avoided, and language is viewed as a resource. Cazabón et al. (1993), for example, report that the majority of students in the Amigos program value both languages; similarly, Lambert and Cazabon, 1994) found that students in the program "enjoy school as it is" (p. 9). Students enjoy the integrated, bilingual environment of dual language programs.

Students also benefit from native-speaker models within language-rich environments; this is true for the language majority and language minority learners. One can argue that English-dominant language minorities can be models for their less fluent peers, but the presence of native English-speaking children from other cultural backgrounds (African American, White, and so on) encourages equity by providing children the experience of cross-cultural living that can lead to greater understanding (Mahrer & Christian, 1993). Academic and social integration is a necessity.

When language majority and language minority populations are not mixed within the program, many dual language programs look for other ways of integration. Populations can be integrated through specialized programs in the arts or in a subject matter; such programs tend to develop when teachers plan curriculum and schedules together (Bergman et al. 1995). Lambert and Cazabón (1994) found that participants in the Amigos program were "forming close friendships with members of their own cultural group and with members of the other cultural groups involved" (p.9).

Various researchers have pointed out that even in integrated settings such as the two-way programs, there are societally based power relationships that show up in group work and other instructional settings (Freeman, 1998; de Jong, 1996; Pérez & Torres-Guzmán, in press; Valdes, 1997). It is critical that teachers think about the social interactions they set up through the organization of instruction. All students are likely to benefit from programs that create a social and cognitive space for shared school experiences.

Claim: Bilingual education programs are designed as compensatory and based on a deficit model.

In dual language programs, as in other developmental, two-way, enrichment programs, bilingualism, biliteracy, and academic achievement are goals for all children. All students' growth -- education, social, and linguistic -- is taken into consideration in a developmentally appropriate fashion, independent of their language and their starting point. Dual language models are the opposite of compensatory, deficit-based models. Their aim is additive with respect to languages rather than subtractive. The languages are positioned socially and structurally so that each has the opportunity to develop fully. Teachers are encouraged to be models of the language, to read original literature for children and adolescents, and to encourage language play.

It is precisely the issue of quality and the perspective of enrichment that make a difference. While language has a primary place because of its relationship to cognition, these programs focus on the quality of education and

learning that is taking place. The results of evaluations and studies show this. Thomas and Collier (1997) suggest that developmental (two- and one-way) programs are more effective educationally than either traditional bilingual education or ESL (English as a second language) programs. In a review of evaluations of 27 different programs, Mahrer and Christian (1993) found that "where comparisons [were] possible, students are on the whole doing as well as or better than their fellow students in other programs" (p.46). The outcomes of these studies show that for the most part, both language minority and language majority students outperform their norming peers in their first language and, by the upper elementary grades, in the second language.

Claim: Dual language programs favor language majority children rather than language minority children Achievement outcome studies of enrichment bilingual education programs have looked at programs using the 90/10 model (Lindholm, 1988a, 1988b; 1991; 1996; Lindholm & Aclan, 1991, 1993; Lindholm & Fairchild, 1988); and the 50/50 model (Cazabón et al., 1993; Cazabón et al., 1999; Christian et al., 1996; Freeman, 1996, 1998; Howard & Christian, 1997; Mahrer & Christian, 1993). Many of these studies had common findings. Freeman (1988) suggests the following, for example.

The outcome is that all students do master skills in both languages, but the native Spanish speakers and the native English speakers do not become equally bilingual and biliterate. (p.190)

In addition, the studies show that both language minority and language majority students outperform their norming peers in their first and second language by the upper elementary grades. Language majority students tend to outperform language minority students in English language and reading tests, and language minority students outperform language majority students in the minority language.

Research by Mahrer and Christian (1993) indicates that both populations may develop "Spanish language skills far beyond those of other students, either as a first or second language..." (p.46). In their study of a dual language school in Virginia (Key School), Howard and Christian (1997) also found that both native Spanish speakers and native English speakers were "progressing well, and comparable to native speakers in monolingual English classrooms" (p.21). Their Spanish language development was "impressive" (p.21), although their Spanish speaking and writing skills lagged behind their English language ability; the "differential [was] wider for native English-speaking students" (p.21). In Cazabón et al.'s (1993 and 2000) studies of reading, Spanish-speaking participants outperformed both "English Amigos" and Spanish cohorts on tests of Spanish literacy. In English, the scores of the English Amigos were higher than the Spanish Amigos and their English controls in grades K-2, but the gap between the Spanish and the English Amigos lessened by grade 3 (Cazabón et al., 1993).

Work by Christian et al. (1996) and Howard and Christian (1997) found a relationship between student writing and language dominance, with native English speakers tending to commit more errors when writing in Spanish than native Spanish speakers did when writing in English. The results of standardized language and reading tests and writing assessments are as expected: Both populations do well in relation to their control peers, with the Spanish-speakers tending to become more proficient bilinguals, and how well they do in relation to each other depends on language dominance.

Perhaps, looking at the students' achievements in the content area would render a clearer picture. In a review of the Spanish math achievement of 17 programs, Mahrer and Christian (1993) found that only 13 reported on English-speaking and Spanish-speaking participants separately. They found that, overall, students made significant progress. For the Spanish-speaking participants, the statistically significant gains in the Spanish math achievement test were found to be consistent across grade levels in grades 1-8. There were statistically significant declining math scores in grades 2, 3, and 7 in three of the programs. In the English math achievement test, the Spanish-speaking students had a wider range in their scores. Four programs reported significant gains,

whereas three reported declines. For the English-speaking participants, statistically significant gains are reported for grades 1, 2, 3, 4, and 6, while one program experienced statistically significant declines in the posttest scores in grade 7. The English-speaking students are also reported to have demonstrated a range in English math achievement, with most students performing at or above average. There was no comparison across groups.

Christian et al. (1996) report that "when comparing native and non-native English speakers on ITBS (Iowa Test of Basic Skills) scores, the native English speakers overall scored higher in all seven academic areas." The ITBS was given in English and tests vocabulary, reading comprehension, language, work-study skills, mathematics, science, and social studies. The English speakers had been studying many of these subjects -- science, social studies, and mathematics -- in Spanish. Thus, the results suggest that while the content area concepts are being taught in the second language, the concepts learned are transferred to the native language and that the outcomes of the test are associated with the language of dominance (Cazabón et al., 1993).

Many of these findings confirm that there is a language factor associated with achievement. However, some of the research, such as the reports on achievement test scores in the content area do not have clear comparisons between the English and Spanish-speaking participants.

For programming using the 50/50 model, findings must be interpreted within the context of the power relationships that exist. While language minority students are doing better than the control groups, it is the power relationship of the languages that prevails in judging program effectiveness. The tendency is to look only at the students' achievement in English, without taking into consideration that the availability of resources -- structural, policy, instructional, linguistic, human, and financial -- are initially asymmetrical (Amrein & Peña, 2000) in favor of the language majority. As Freeman (1998) documents at Oyster School in Washington, DC, the entire school must continually deal with the difference between the ideal and the actual in order to reverse the inequitable experiences that perpetuate the status quo. Some of the individual factors that are central to developing bilingualism, such as positive attitudes, need also to be consistently and consciously developed (Griego-Jones, 1994; McCollum, 1994). Freeman (1998) shows that even when students have acquired academic skills and crosscultural understandings, are able to position themselves as equal participants, and know effective ways of making claims on society, they still need support beyond the elementary grades in order to develop these skills at higher levels.

Despite the differences in achievement, the studies reviewed show that both groups benefit. They become bilingual and achieve, for the most part, at or above their grade level.

Claim: Dual language programs are too expensive and they do not have sufficient administrative and financial support.

Financial considerations in relation to the objective must always be considered. If two solutions are equally effective, we tend to favor the less expensive. Yet where one solution is more effective for more people or where the solution has a long-term effect, we may consider it as more beneficial, even if more expensive.

The costs of bilingual education programs have been difficult to estimate because their funding is usually integrated with other costs. What we assume is that all special language services cost more because special testing, materials, administrative support, and teaching personnel are needed. Furthermore, we assume that the special costs are associated with the native language component. Yet, indications are that the native language component is not what makes for costly programs: The major factor seems to be the extent to which the programs are supplementary or integrated in the school curriculum. For example, the most popular program implemented in schools, the ESL pullout program, does not rely on native language and is still the most expensive (Chambers & Parrish, 1992). What makes it more costly is that a teacher other than the regular teacher is on payroll working

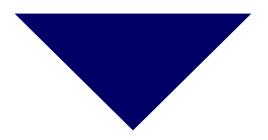
with a small number of children in a concentrated way. While the advantage of the model is that you do not need teachers who know the language of the children, it is the least effective of the language service models (Thomas and Collier, 1997).

The second most costly model is the two-way model. The costs associated with it are related to the quality of the teaching staff, the additional native language resources, the professional development of the teachers, and the time associated with curriculum development. In other words, quality of instruction does have its costs. An advantage of these programs is that they motivate parents, particularly middle- and upper-class parents, to secure greater resources in order to ensure educational excellence.

The reality is that for dual language programs to grow, they need leadership, administrative support, and money. What has made them different from other programs is that administrators and leaders have been more likely to push for educational excellence by creating environments of support for both clients and providers and by securing greater resources. When mainstream parents participate, they are also likely to command power and resources that can be channeled into the operations of the enrichment programs. Thus, financial resources are more likely to be distributed equitably and more likely to benefit all children.

SUMMARY

In this article, the literature on dual language programs has been examined in an attempt to provide a clearer definition and to describe their salient features. Given that school districts are increasingly using the dual language label, it is imperative that there be guidance as to what they need to develop, and that the parameters are clear as to the variations possible within the model. With respect to the issues raised in the bilingual education effectiveness debate, the findings reviewed here suggest that dual language programs, because they tend to promote greater integration, to treat the languages of both groups as resources, and to use their resources to benefit all children educationally, are a sound choice.



REFERENCES

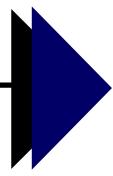
- Amerein, A., & Peña, R. A. (2000). Asymmetry in dual language practice: Assessing imbalance in a program promoting equality. *EPAA*, 8. (1997). Retrieved February 5, 2000 from the World Wide Web: http://epaa.asu.edu/epaa/v8n8.html.
- Bergman, P., Minicucci C., McLaughlin, B., Nelson B., & Woodworth, K. (1995). School reform and student diversity: Case studies of exemplary practices for LEP students. Washington, DC: National Clearinghouse for Bilingual Education.
- Calderón, M. (1989). Cooperative learning for LEP students. *Intercultural Development Research Association Newsletter*, 16 (9), 1-7.
- Cazabón, M., Lambert, W.E., & Hall, G. (1993). *Two-way bilingual education: A progress report on the Amigos Program* (Research Report 7). Santa Cruz, CA and Washington, DC: National Center for Research on Cultural Diversity and Second Language Learning.
- Cazabón, M., Nicoladis, E., & Lambert, W.E. (1999). *Becoming bilingual in the Amigos two-way immersion program* (CREDE Research Report 3). Center for Research on Education, Diversity, and Excellence. Retrieved January 28, 2000 from the World Wide Web: www.cal.org/crede/pubs/research/rr3.htm
- Cazden, C.B. (1984). Effective instructional practices in bilingual education. (Paper commissioned by the National Institute of Education). Washington, DC: White (E.H.) Co.
- Chambers, J., & Parrish, T. (1992). Meeting the challenge of diversity: An evaluation of programs for pupils with limited proficiency in English (Volume 4). Cost of programs and services for LEP students. Berkeley, CA.: BW Associates.
- Christian, D. (1994). *Two-way bilingual education: Students learning through two languages* (Educational Practice Report 12). Santa Cruz, CA and Washington, DC: National Center for Research on Cultural Diversity and Second Language Learning.
- Christian, D. (1996). Two-way immersion education: Students learning through two languages. *Modern Language Journal*, 80, 66-76.
- Christian, D., & Montone, C. (1994). *Two-way bilingual education programs in the United States: 1993-1994 Supplement.* Washington, DC: Center for Applied Linguistics.
- Christian, D., Montone, C., Carranza, I. & Lindholm, K. (1996). Profiles in two-way immersion education. *Language in Education: Theory and Practice:* 89. Washington, DC: Center for Applied Linguistics.
- Christian, D., & Whitcher, A. (1995). *Directory of two-way bilingual education programs in the United States.*Revised. Santa Cruz, CA and Washington, DC: National Center for Research on Cultural Diversity and Second Language Learning.
- Collier, V.P. (1992). A synthesis of studies examining long-term language minority student data on academic achievement. *Bilingual Research Journal*, *16*, 187-222.
- Collier, V.P. (1995). A synthesis of studies examining long-term language minority student data on academic achievement. In G. Gonzalez, & L. Maez (Eds.), *Compendium of research on bilingual education*, (pp.231-244). Washington, DC: National Clearinghouse for Bilingual Education.
- Crushner, K., McClelland, A., & Stafford, P. (1992). Human diversity in education. New York, NY: McGraw-Hill.
- Cummins, J. (1992). Empowerment through biliteracy. In J.V. Tinajero & A.F. Ada, (Eds.), *The power of two languages: Literacy and biliteracy for Spanish-speaking students* (pp.9-25). New York, NY: Macmillan/McGraw-Hill.
- De Jong, E. J. (1996). *Integration: What does it mean for language minority students?* Paper presented at the Annual Meeting of the National Association for Bilingual Education, Orlando, FL.
- Delgado-Gaitán, C. (1987). Parent perceptions of school: Supportive environments for children. In H.T. Trueba, (Ed.), Success or failure? Learning and language minority students. (pp. 131-155). New York, NY: Newbury House.
- Etxeberria, F. (1993). Descripción y tipología del Modelo "B" en el sistema educativo del la Comunidad Autónoma Vasca. San Sebastiftran, España: Universidad del País Vasco.
- Foster, J.L., & Swinney, R. (n.d.) The dual language program of Manhattan's District Three. Unpublished manuscript.

- Freeman, R. (1996). Dual language planning at Oyster bilingual school: It's much more than language. *TESOL Quarterly, 30* (3), 557-582.
- Freeman, R. (1998). Bilingual education and social change. Philadelphia, PA: Multilingual Matters.
- Gardner, R.C., & Lambert, W.E. (1972). Attitudes and motivation in second-language learning. Rowley, MA: Newbury House.
- Genesee, F. (1987). Learning in two languages: Studies of immersion in bilingual education. Cambridge, MA: Newbury House.
- Gonzalez, N. (1994). The funds of knowledge for teaching project. Practicing Anthropology, 17 (3); 3-6.
- Goodman, K. (1986). What's whole in whole language? Portsmouth, NH: Heinemann.
- Goodman, K., Goodman, Y., & Flores, B. (1979). *Reading in the bilingual classroom: Literacy and biliteracy.*Rosslyn, VA: National Clearinghouse for Bilingual Education.
- Griego-Jones, T. (1994). Assessing students' perceptions of biliteracy in two-way bilingual classrooms. *Journal of Educational Issues of Language Minority Students*, 13, 79-93.
- Hakuta, K., & Diaz, R. (1984). The relationship between bilingualism and cognitive ability: A critical discussion and some new longitudinal data. In K.E. Nelson, (Ed.), *Children's language* (Vol. 5, pp. 319-344). Hillsdale, NJ: Lawrence Erlbaum.
- Hornberger, N. H. (1990). Extending enrichment bilingual education: revisiting typologies and redirecting policy. In O. Garcia, (Ed.), Festschrift for Joshua A. Fishman; Vol.1. *Focus on bilingual education,* (pp.215-234). Philadelphia, PA: John Benjamin.
- Howard, E., & Christian D. (1997). *The development of bilingualism and biliteracy in two-way immersion students.*Paper presented at the meeting of the American Educational Research Association, Chicago.
- Jacob, E., & Mattson, B. (1995). Cooperative learning: Instructing limited-English proficient students in heterogeneous classes. In O. Garcia, & C. Baker, (Eds.), *Policy and practice in bilingual education: Extending the foundations* (pp. 231-236). Clevedon, Avon, UK: Multilingual Matters.
- Jacobson, R. (1995). Allocating two languages as a key feature of a bilingual methodology. In O. Garcia, & C. Baker, (Eds.), *Policy and practice in bilingual education: Extending the foundations* (pp. 166-175). Clevedon, Avon, UK: Multilingual Matters.
- Kagan, S. (1986). Cooperative learning and sociocultural factors in schooling. In California State Department of Education, *Beyond language: Social and cultural factors in schooling language minority students* (pp. 231-98). Los Angeles, CA: California State University, Evaluation, Dissemination and Assessment Center.
- Krashen, S.D. (1987). Bilingual education and second language acquisition theory. In *California State Department of Education, Schooling and language minority students: A theoretical framework.* (pp. 51-79). Los Angeles, CA: California State University, Evaluation, Dissemination and Assessment Center.
- Ladson-Billings, G. (1994). *Dreamkeepers: Successful teachers of African-American children.* San Francisco: Jossey-Bass.
- Lambert, W. E., & Cazabón, M. (1994). *Students' views of the Amigos Program* (Research Report: 11). Santa Cruz, CA and Washington, DC: National Center for Research on Cultural Diversity and Second Language Learning.
- Legarreta-Marcaida, D. (1987). Effective use of primary language in the classroom. In California State Department of Education, *Schooling and language minority students: A theoretical framework* (pp. 83-116). Los Angeles, CA: California State University, Evaluation, Dissemination and Assessment Center.
- Leslow-Hurley, J. (2000). *The foundations of dual language instruction* (3rd ed.). White Plains, NY: Longman.
- Lindholm, K.J. (1987). Directory of bilingual immersion programs: Two way bilingual education for language minority and majority students. Los Angeles, CA: University of California. Center for Language Education and Research.
- Lindholm, K.J. (1988a). *The Edison Elementary School Bilingual Immersion Program. Student progress after one year of implementation* (Technical Report Series TR9). Los Angeles, CA: University of California. Center for Language Education and Research.
- Lindholm, K.J. (1988b). *Evaluation of an "exemplary" bilingual immersion program*. Los Angeles, CA: University of California. Center for Language Education and Research.

- Lindholm, K.J. (1991). Theoretical assumptions and empirical evidence for academic achievement in two languages. Hispanic Journal of Behavioral Science, 13, 3-7.
- Lindholm, K.J. (1994). Promoting positive cross-cultural attitudes and perceived competence in culturally and linguistically diverse classrooms. In R. A. DeVillar, C. J. Faltis, & J. P. Cummins (Eds.). *Cultural diversity in schools: From rhetoric to practice* (pp. 189-206). Albany, NY: State University of New York Press.
- Lindholm, K.J. (1999). *Dual language programs*. Presentation at the Annual Meeting of the New York Association for Bilingual Education, Rye, NY.
- Lindholm, K. J., & Aclan, Z. (1991). Bilingual proficiency as a bridge to academic achievement: Results from bilingual/immersion programs. *Journal of Education*, 173 (2), 99-113.
- Lindholm, K. J., & Aclan, Z. (1993). Relationship among psychosocial factors and academic achievement in bilingual Hispanic and Anglo Students. Paper presented at the Annual Meeting of the American Educational Research Association.
- Lindholm-Leary, K. (2000). *Biliteracy for a global society: An idea book on dual language instruction.* Washington, DC: National Clearinghouse for Bilingual Education.
- Loeb, M. (1999). Directory of two-way bilingual immersion programs in the U. S., 1998-1999 Supplement. Santa Cruz, CA and Washington, DC: National Center for Research on Cultural Diversity and Second Language Learning.
- Mahrer, C., & Christian, D. (1993). A review of findings from two-way bilingual education evaluation reports. Washington, DC: National Center for Research on Cultural Diversity and Second Language Learning.
- Marquez-Lopez, T. (1998). Parental views on participation, dual language education, and bilingualism. Unpublished Dissertation. New York, NY: Teachers College, Columbia University.
- Martinez, J., & Moore-O'Brien, J.A. (1993). Developing biliteracy in a two-way immersion program. In J.V. Tinajero, & A.F. Ada, (Eds.), *The power of two languages: Literacy and biliteracy for Spanish-speaking students* (pp.276-293). New York, NY: Macmillan/McGraw-Hill.
- McCollum, P. (1994). Language use in two-way bilingual education programs. *Intercultural Development Research Association Newsletter, 21*, 9-11.
- Mercado, C. I., & Moll, L. C. (1997). The study of funds of knowledge: Collaborative research in Latino homes. CENTRO Journal of the Center for Puerto Rican Studies. IX (9), 26-42.
- Morrison, S.H. (1995). A Spanish-English dual language program in New York City. *Annals of the American Academy of Political & Social Science, 508*, 160-169.
- Nieto, S. (1995). Affirming diversity. White Plains, NY: Longman.
- Olmedo, I.M. (1997). Voices of our past: Using oral history to explore funds of knowledge within a Puerto Rican family. *AEQ*, 28, 550-573.
- Pérez, B., & Torres-Guzmán, M.E. (1996). *Learning in two worlds: An integrated Spanish/English biliteracy approach* (2nd ed.). White Plains, NY: Longman.
- Pérez, B., & Torres-Guzmán, M.E. (in press). Literacy in two-way bilingual education programs.
- Ramirez, J.D., Yuen, S.D., & Ramey, D.R. (1991). Executive summary, Final report: Longitudinal study of structured English immersion strategy, early-exit and late-exit transitional bilingual education programs for language minority children, (U.S. Department of Education Contract No. 300-87-0156). San Mateo, CA: Aguire International.
- Rubio, O. (1995). Yo soy voluntaria: volunteering in a dual language school. *Urban Education*, 29, 396-409.
- Slavin, R.E. (1990). Cooperative learning: Theory, research, and practice. Englewood Cliffs, NJ: Prentice-Hall.
- Thomas, W. P., & Collier, V. (1997). School effectiveness for language minority students. NCBE Resource Collection Series, 9. Washington, DC: National Clearinghouse for Bilingual Education.
- Torres-Guzmán, M.E. (1990). Response to "If not here, where? If not now, when?" In E. Gordon (Ed.), *A study of minority student achievement in Montgomery County public schools*. New York, NY: Gordon and Associates.
- Valdes, G. (1997). Dual language Immersion Programs: A cautionary note concerning the education of language minority students. *Harvard Education Review, 67* (3), 391-429.

About the Author

María E. Torres-Guzmán is an Associate Professor and the Director of the Program in Bilingual/Bicultural Education at Teachers College, Columbia University. Her specialization is in ethnographic research on the education of linguistic minority children. She has coedited two *Teachers College Record* volumes on multicultural education and a *Bilingual Research Journal* on exemplary bilingual programs. Torres-Guzmán has co-authored a Longman publication entitled, *Learning in Two Worlds* and numerous articles and chapters. She has also participated in the development of Macmillan/McGraw-Hill's *Cuentamundo*, a children's literacy series, and developed Spanish computer software for teaching literacy to pre-school, kinder, and first grade.



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Principal Investigator: Joel Gómez, Ed.D. Director: Minerva Gorena, Ed.D. Deputy Director: Nancy Zelasko, PhD.

The George Washington University
Graduate School of Education & Human Development
Institute for Education Policy Studies
Center for the Study of Language and Education
National Clearinghouse for Bilingual Education
2121 K Street, NW, Suite 260 • Washington, DC 20037
(202) 467-0867 • http://www.ncbe.gwu.edu

